

The gap between teachers' English proficiency, necessity and online learning skills in the COVID-19 pandemic

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ABSTRACT

Purpose: This study aims to investigate the relationship between teachers' perceived necessity and their online learning skills during the COVID-19 pandemic in Indonesia. It focuses on four key elements of online course design: course communication, resource authenticity, time management and technical skills.

Design/Methodology/Approach: A quantitative survey was used to collect data from 39 teachers using the Survey Monkey application and manual returns. The data was collected through five Likert-scale questionnaires.

Finding: The findings showed a significant discrepancy between teachers' perceived necessity and their actual online learning skills. The mean score for teachers' perceived necessity for online learning was at the highest level while their actual skills were at the lowest. A positive correlation between English proficiency and teachers' online learning skills was found. Further analysis demonstrated a significant relationship between English proficiency and teachers' online learning skills.

Conclusion: Teachers perceived the necessity for online learning skills as crucial as their actual skills were found to be limited or low during the pandemic. Furthermore, the study demonstrated that English proficiency skills positively impact teachers' online learning skills.

Research Limitations: It is recommended to carry out a more extensive investigation involving a larger population to obtain generalizable results.

Practical Implication: The result indicates that teacher training in online learning skills is crucial in preparation for the future. The study informs the policymaker to consider further emergency situations related to the full online learning policy.

Contribution to Literature: This study highlights the importance of English proficiency in the development of online teaching skills.

Keywords: English proficiency, Higher education, IT skills, Online learning design, Online learning, Revolution industry 4.0.

1. INTRODUCTION

One way to prevent the spread of COVID-19 is by implementing physical distancing. However, such policies may impede growth rates in several fields of livelihood including the economy, social and education sectors (Dawadi, Giri, & Simkhada, 2020; Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2020).

Indonesia's education and cultural sectors have adopted the policy of home-based learning. It is beneficial for universities to switch from face-to-face (F2F) to online learning preparing their teachers by providing training and guidance materials such as videos and documents. It is necessary to evaluate the needs and skills of teachers to operate online learning tools during the COVID-19 pandemic through internal university assessments and independent study. Investigating the ability of teachers to optimize the usage of online learning features and other supportive applications will help anticipate sudden policy changes such as the COVID-19 crisis (Raad & Khan, 2020). During the pandemic, the implementation of online learning became important and teachers played an essential role in the entire process. In order to achieve the learning objectives, teachers must effectively deliver the subject

matter using creative and innovative approaches. It is important to use all available features and applications to ensure the best possible learning outcome. The success of online learning depends on how well teachers can optimize the use of technology to impact the attitude and academic achievement of the students (Vanslambrouck, Zhu, Lombaerts, Philippsen, & Tondeur, 2018). Providing a student with the relevant devices is not enough, teachers should be able to implement online learning effectively. Therefore, teachers must be updated with current digital technology developments and use available online learning facilities to replace face-to-face teaching (Paechter & Maier, 2010).

They must possess the necessary skills to use these tools and applications to facilitate student learning through the various platforms (Means, Toyama, Murphy, Bakia, & Jones, 2009; Michinov, Brunot, Le Bohec, Juhel, & Delaval, 2011). Additionally, teachers should adopt online learning procedures particularly with regard to their features and compatible applications to keep pace with digital technology advancements (Bao, 2020; Hadiyanto, Urip, Amirul, Eddy, & Syaiful, 2022; Hadiyanto, Wilyanti, & Supian, 2021). Another critical issue that should be considered is the English proficiency of teachers because certain online learning features and supported applications are only available in English. English proficiency can have a significant impact on the digital technology awareness, knowledge and online learning skills of the teachers (Ananiadou, McNaught, & Thompson, 2014; Finardi & Tyler, 2015; Susiani, Dharsana, Suartama, Suranata, & Yasa, 2022). There has been a lack of study on the correlation and association between English proficiency and online learning skills. The present study aims to explore the necessity and skills of teachers in online learning.

1.1. Online Learning Skills and their Necessity

Online learning refers to use the internet to facilitate learning activities through e-learning platform. Consequently, additional online applications, resources and media often support this platform. For example, e-learning platforms such as Edmodo, Moodle and Easy Class can be used for online learning (Ali & Juwita, 2020). External online applications such as YouTube, Google Forms, Weblink, video presentations, quizzes, etc. can be used to supplement e-learning and optimize the online learning experience. The primary material for online learning can be delivered in many forms such as PowerPoint presentations, short videos, e-reading materials, e-books, e-modules, links and other resources (Michinov et al., 2011). During the COVID-19 pandemic, it is essential to use supported media and additional materials to meet the standard of face-to-face (F2F) learning. Teachers must possess online learning skills (Bao, 2020; Dawadi et al., 2020; Edelhauser & Lupu-Dima, 2020; Hadiyanto et al., 2021). The effectiveness of online learning largely depends on the creativity of the teachers and their ability to use various appropriate features and applications (Lin & Lin, 2015).

Before the COVID-19 crisis, e-learning was mostly used as a single medium for delivering and submitting course materials at the institution. However, a combination of synchronous and asynchronous online learning needs to be implemented for complete online learning. The essential features of synchronous and asynchronous online learning applications should be optimized (Hadiyanto, 2019; Kurniawan & Juwita, 2020). Teachers need to integrate pedagogical principles into online learning while using available facilities, features and applications.

Several studies on online learning have reported that teachers need to possess the competence to create interactive sessions for the students, manage learning activities and time effectively and use e-learning features and other supported applications (Albrahim, 2020).

In this study, some essential online skills were identified for teachers such as online course design, communication, resource authenticity, time management and technical skills (Case & Nall, 2022; Hadiyanto et al., 2021; Mahyooob, 2020; Peng, Nair, & Wider, 2022; Putri et al., 2020). Teachers must have a well-designed online course before starting an online class. Most e-learning platforms offer teachers the option to develop their own online syllabus which can be updated when necessary. Teachers are expected to design online assessments, facilitate discussions, develop and deliver online modules and incorporate appropriate online learning media such as videos and other resources. An appropriate teaching method needs to be selected and applied correctly. In terms of online assessment, teachers should be skilled in generating online quizzes, assignments, projects, online scoring and final evaluation (Albrahim, 2020; Rapanta et al., 2020).

Effective communication skills are essential for teachers during the process of online learning. Online learning needs to be made using diverse communication media such as WhatsApp, Email, Facebook, etc. as well as engaging in synchronous online video interaction (Dawadi et al., 2020). Additionally, teachers need to possess the competence to facilitate and moderate online discussions, respond to questions, provide feedback and

communicate their expectations regarding the behavior of students during online learning (Coman, Țiru, Meseșan-Schmitz, Stanciu, & Bularca, 2020).

The authenticity of resources is a critical aspect of online learning and teachers must apply academic standards and integrity in selecting, using, suggesting and verifying the authenticity of these resources. In addition, effective time management in online learning is also crucial. Teachers need to prepare the course syllabus a week before the class starts allowing students sufficient time to brainstorm independently. They also need to possess time management skills including weekly scheduling, setting academic calendars and timing assignments, mid-term and final exams according to the topics discussed (Hadiyanto, 2019; Vanslambrouck et al., 2018).

Finally, teachers also need to possess technical skills to deliver effective online learning. This includes their ability to use various features of e-learning platforms both synchronous and asynchronous. Examples of such features include creating breakout rooms for group activities, giving technical instructions and using collaborative tools such as Google Drive and Dropbox. These teachers should be proficient in operating screen recorders to make video presentations, use games, simulations and other interactive features to enhance online learning (Kurniawan & Juwita, 2020).

1.2. Advantages of Online Learning

Traditional classroom teaching and learning may be less effective in promoting students learning processes due to various reasons such as time constraints, difficulties, a lack of flexibility, fear, etc. Conversely, numerous studies have reported the advantages associated with online learning. These include increased interaction between students and teachers, the ability to learn anytime and anywhere, wider coverage, the possibility of inviting students from other countries, thereby reaching a global audience and easy storage and updating of learning materials (Hadiyanto, 2019; Rapanta et al., 2020). Vanslambrouck et al. (2018) stated that online learning helps teachers and students manage learning activities using computers, laptops and Android devices. It also serves as a virtual classroom facilitating interaction between both parties and providing a platform for efficient evaluation (Raheem & Khan, 2020). The advantages of online learning for students include increased independence and interactivity, improved retention of course content and various learning experiences. Teachers can use a combination of text, audio, video and animation while delivering content, making it easier to convey, update and download. The students can communicate synchronously and asynchronously by sending messages, commenting on discussion forums, using chat rooms and using video conferencing links (Hadiyanto et al., 2021; IBO, 2020).

Moreover, traditional classroom activities and assignments that mandate students to collaborate can be adapted to electronic or web-based learning environments. Electronic learning also known as e-learning refers to the use of electronic devices to facilitate the creation, delivery, assessment and management of learning activities. These activities are typically carried out in a physical classroom setting but can now be implemented in online learning (Hadiyanto et al., 2021; Means et al., 2009). The benefits of this approach are only realized when teachers possess the knowledge and skills required to effectively use online learning tools and strategies for planning, implementing and managing these activities.

1.3. The Role of Teachers in Online Learning

Teachers play a vital role in ensuring the effective implementation of electronic learning activities. Their ability to organize online learning is crucial to motivate students and conveying information on all learning activities. Additionally, they need to possess advanced skills in operating online learning applications to maximize the use of the facilities and their features. In online teaching, teachers act as facilitators rather than disseminators focusing on mentoring students to achieve learning goals (Means et al., 2009; Raheem & Khan, 2020). Before the class commences, teachers must search for relevant materials and ideas, create lesson plans that can be easily replicated, give exercises, quizzes and tests for evaluation. Additionally, they must design strategies and methods to deliver content effectively by selecting appropriate tools and applications. The learning design must engage students in meaningful activities encourage interaction and facilitate content acquisition. Finally, teachers need to conduct regular evaluations to monitor their progress (Rapanta et al., 2020).

Both teachers and students have important roles in facilitating online learning activities. Students are responsible for constructing knowledge, practicing skills, becoming independent learners and developing problem-solving abilities (Ananga & Biney, 2017; Edelhauser & Lupu-Dima, 2020). Teachers are responsible for ensuring that students interact with each other during online learning to help them acquire knowledge and achieve their

learning objectives. Regular interaction among students needs to be encouraged and facilitated to promote communication and discussion about learning activities (Lin & Lin, 2015). For example, when students do not understand a question or an idea, they can ask others for explanations. However, assuming the answer is incorrect, the teachers need to provide detailed explanations. Maintaining the interaction between students and teachers is essential for optimal learning outcomes.

1.4. English Proficiency and Online Learning Skills

According to Finardi and Tyler (2015), English is regarded as an international language and information is primarily transmitted online, those who lack digital literacy and proficiency in English tend to be excluded from knowledge in various ways. English is primarily used as a medium for Information and Communication Technology (ICT) applications, web browsing, search engine, e-learning and most online platforms. It is also used as a technical language in software systems, hardware manuals and IT application instructions. Ananiadou et al. (2014) and Finardi and Tyler (2015) stated that the exponential increase in the use of electronic systems such as telecommunications, computer network technology and the internet for sharing, transmitting, processing, storing, retrieving and using information in study, business and social life has dramatically altered the way individuals and groups communicate. Shehu and Shittu (2015) also reported that English remains essential for technicians and users to navigate operational systems and use applications including online learning platforms.

In an educational setting, Racca and Lasaten (2016) stated that English serves as a bridge for teachers to comprehend and explore the use of online learning applications. Therefore, English proficiency is essential to enhance their online learning skills. Lindner (2014) reported that this acts as a link between teachers and students to improve their academic performance and competence in online learning and other applications. Teachers with higher levels of English proficiency are more acquainted with ICT usage than those with lower levels. The attitude of the users towards ICT is also influenced by their English proficiency level. A higher level of proficiency leads to a more positive attitude towards or perception of ICT.

In order to commence online learning, teachers and students must possess good English proficiency corresponding to their respective roles and needs. Teachers with a low level of English proficiency are usually unable to operate online features and may encounter technical issues while using certain applications. The students must also possess English proficiency to adapt to change learning modes (Kuama, 2016).

2. METHOD

The present study was conducted at the department of an Indonesian university and involved 39 out of 48 teachers who participated in the online survey. Furthermore, as reported in separate papers, 441 students were also included in the investigation of online learning implementation levels and effectiveness (Hadiyanto et al., 2021). The online Survey Monkey application was used in data collection and the online questionnaire link was shared through WhatsApp groups and personal contact. The questionnaire comprised six sections, namely demographics, online learning design, course communication, resource authenticity, time management and technical skills. Each item was rated on a five-point Likert scale ranging from strongly disagrees to strongly agree. In order to ensure reliability and relevance, the questionnaire was pilot-tested before the actual survey was conducted. According to Pallant (2011), the alpha value ranges from 0.7 to 1.00. It is presumed to have a strong reliability value. Table 1 shows that the pilot test results indicate the Cronbach alpha value was greater than 0.7 for overall learning usage and its elements. The acquired data were analyzed using SPSS 21.

Table 1. Reliability of the self-evaluation questionnaire.

Online learning usage	Number of items	Corrected item-total correlation	Cronbach alpha
Design of online learning	10	0.45 - 0.63	0.86
Course communication	7	0.44 - 0.74	0.83
Resources authenticity	3	0.54 - 0.73	0.79
Time management	5	0.66 - 0.87	0.89
Technical skills	8	0.54 - 0.76	0.88
Online learning usage	33	-	0.95

A descriptive statistic was used to analyze the collected data and the results are presented through the mean, standard deviation and various levels of interpretation. Specifically, the findings concerning online learning usage and its components were interpreted with respect to five distinct levels as shown in Table 2.

Table 2. Mean interpretation.

Mean score	Interpretation
1.00 to 1.80	Very low
1.81 to 2.60	Low
2.61 to 3.40	Average
3.41 to 4.20	High
4.21 to 5.00	Very high

This study used inferential statistics to examine the correlation and regression between teachers TOEFL and AEP scores with respect to their online learning skills. Pearson correlation was used to investigate the correlation among TOEFL, AEP and online learning skills. Simple regressions were applied in the subsequent analysis stage to predict the effect of TOEFL and AEP scores on the online learning skills of the teacher. Both dependent variables measure the same concept from different perspectives, namely the actual score and perceived English proficiency. Conducting multiple regression analysis is unreasonable. Statistical assumptions of simple and multiple regressions need to be met before presenting the results (Hair, Anderson, Tatham, & Black, 2006). The study findings section reported normal probabilities, scatter plots and statistical value assumptions.

3. RESEARCH FINDINGS

Based on Figure 1, it can be observed that teachers need to possess a very high level of proficiency in using online learning tools ($x = 4.31$). Teachers provided all components of online skills at a very high level ranging from 4.21 to 5.00. On the contrary, they rated their overall online learning skills (3.47) much lower than was required indicating a significant gap between their perceived skills and actual needs. None of the online learning skill components were rated at a very confident level of the mean score. Online course design and communication including time management skills were at the lowest mean score level while resource authenticity and technical skills were at a medium score level. This study revealed a considerable mismatch between the perceived skills and the actual requirements of the teachers.

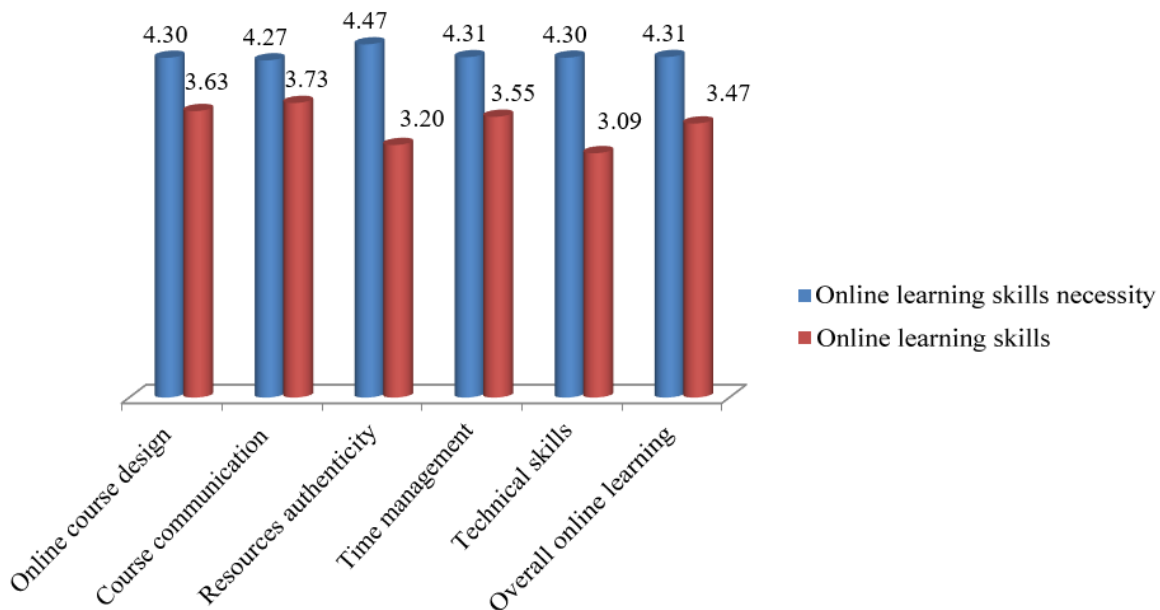


Figure 1. Mean score of online learning necessity and skills.

The teachers rated their perceived need for online learning design skills as very high with a mean score of 4.30. They also rated all statements related to the importance of these skills as very high. However, teachers perceived their skills in online learning design at a high level with two statements rated at a medium level. None of the indicators for online learning design skills were rated at a very high level. Table 3 shows the mean score and the perceived necessity and skill level of the teachers in online learning.

The data presented in Table 4 shows that teachers reported a very high level of necessity for course communication skills with a mean score of 4.27. Similarly, all statements related to the necessity of course design and communication were rated at a very high level. The perceived level of course communication skills was rated lower than their necessity, with all statements rated at a high level and none rated at a very high level.

Table 3. Level of design for online learning.

Design of online learning	Necessity			Skills		
	Mean	S.td	Level	Mean	S.td	Level
A1. Presenting an online syllabus.	4.41	0.50	V. High	3.21	1.03	Medium
A2. Designing online assessments.	4.44	0.50	V. High	3.69	0.92	Confidence
A3. Defining the role of students in group discussion and presentation.	4.38	0.49	V. High	3.41	1.02	High
A4. Delivering material in online modules and material units.	4.15	0.37	High	3.31	0.92	Medium
A5. Using video sources to deliver topics of discussion and convey online assignments.	4.18	0.39	High	3.59	0.72	High
A6. Applying various learning methods online.	4.26	0.44	V. High	3.77	0.81	High
A7. Generating online quizzes and tests.	4.31	0.47	V. High	3.64	0.67	High
A8. Giving online assignments or projects.	4.31	0.47	V. High	4.18	0.82	High
A9. Scoring assignments online.	4.28	0.46	V. High	3.79	0.89	High
A10. Evaluating online learning.	4.28	0.46	V. High	3.67	0.62	High
Overall	4.30	0.30	V. High	3.63	0.60	High

Table 5 shows the necessity of resources authenticity skills (4.47) and all statements received a very high rating. However, their skills for implementing the resource authenticity standard were at a medium level (mean 3.19). Among the three statements, implementing online learning based on academic standards and integrity received a high rating while the other two were rated at a medium level.

Table 4. Level of design of the course communication.

Course communication skills	Necessity			Skills		
	Mean	S.td	Level	Mean	S.td	Level
B1. Making an online announcement.	4.23	0.48	V. High	3.90	0.60	High
B2. Creating and moderating online discussion.	4.23	0.43	V. High	3.67	0.74	High
B3. Using email, WhatsApp and other applications to communicate with the students.	4.31	0.47	V. High	3.74	0.75	High
B4. Responding to student online questions promptly.	4.28	0.46	V. High	3.56	0.75	High
B5. Providing online feedback assignments.	4.26	0.44	V. High	3.55	0.50	High
B6. Using synchronous web-conferencing tools.	4.28	0.46	V. High	4.10	0.75	High
B7. Stating expectations about student behavior (Etiquette).	4.28	0.46	V. High	3.56	0.68	High
Overall	4.27	0.32	V. High	3.73	0.55	High

Table 6 shows teachers perceptions of the use and effectiveness of time management. They rated their necessity for time management skills at a very high level (mean 4.31). All statements related to time management skills

necessity were rated at a very high level. However, teachers perceived that their time management skills were at a high level or lower than required.

Table 5. Level of resource authenticity and usage.

Resources authenticity	Necessity			Skills		
	Mean	S.td	Level	Mean	S.td	Level
C1. Implementing online learning based on academic standards and integrity.	4.46	0.51	V. High	3.67	0.74	High
C2. Using authentic material, resources and online references with copyright.	4.54	0.51	V. High	2.85	1.09	Medium
C3. Monitoring and checking authentic resources in assignments.	4.41	0.50	V. High	3.08	0.81	Medium
Resources authenticity	4.47	0.42	V. High	3.19	0.661	Medium

Table 6. Level of time management.

Time management	Necessity			Skills		
	Mean	S.td	Level	Mean	S.td	Level
D1. Providing an online syllabus before the class started.	4.44	0.50	V. High	3.79	0.77	High
D1. Organizing online learning according to schedule and time.	4.33	0.48	V. High	3.72	0.65	High
D3. Using LMS features for time management and online assessment. Arrange the academic calendar and other settings.	4.18	0.45	High	3.44	0.97	High
D4. Managing time sessions for synchronous online discussion.	4.28	0.46	V. High	3.59	0.94	High
D5. Assignments are assessed by the lecturers. For example, every two weeks.	4.31	0.47	V. High	3.23	0.71	Medium
Overall	4.31	0.39	V. High	3.55	0.67	High

Table 7 shows that the necessity of technical skills among teachers is very high (4.30). All statements were rated at a very high level except for statement E8 which was rated at a high level. However, the technical skills of teachers (mean 3.09) and all related statements were rated at a medium level except for E2 which was rated at a high level (mean 3.51).

Table 7. Technical skills implementation.

Technical skills implementation	Necessity			Skills		
	Mean	S.td	Level	Mean	S.td	Level
E1. Using most features in an online meeting namely the Zoom and Google applications	4.44	4.44	V. High	3.18	0.68	Medium
E2. Giving clear direction in the learning process through e-learning (e.g. Moodle, Edmodo, Google Classroom etc.).	4.41	4.41	V. High	3.51	0.76	High
E3. Use online meetings for learning. for example using Zoom, Google Meet etc.	4.33	4.33	V. High	3.31	0.77	Medium
E4. Grouping students in the synchronous and asynchronous online learning platforms.	4.38	4.38	V. High	3.00	0.73	Medium
E5. Using online collaborative tools.	4.26	4.26	V. High	2.64	0.74	Medium
E6. Posting on the e-learning wall to share resources.	4.33	4.33	V. High	3.28	0.79	Medium
E7. Creating video presentations online using a screen recorder and PPT video presentation.	4.23	4.23	V. High	2.74	0.75	Medium
E8. Using various web-based learning resources, games, simulations, links, online virtual tests, etc.	4.03	4.03	High	3.08	0.66	Medium
Technical skills implementation	4.30	4.30	V. High	3.09	0.54	Medium

3.1. Correlation of Usage and Effectiveness of Online Learning

The respondents were requested to report their scores on either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The IELTS scores were converted to TOEFL scores for analysis. Additionally, the respondents were asked to rate their perception of Academic English Proficiency (AEP) on a Likert scale of 1 to 5 (very unconfident, unconfident, average, confident and very confident). AEP comprises four components, namely Academic Listening Proficiency (ALP), Academic Speaking Proficiency (ASP), Academic Reading Proficiency (ARP), and Academic Writing Proficiency (AWP). Table 8 shows the mean of TOEFL and AEP scores.

Table 8. Teachers' TOEFL and AEP mean scores.

Online learning skills	Mean	Std.
TOEFL	447.31	54.787
Perception of overall academic English proficiency	2.90	0.66
Perception of academic listening proficiency	2.82	0.60
Perception of academic speaking proficiency	2.92	0.73
Perception of academic reading proficiency	2.76	0.84
Perception of academic writing proficiency	3.10	0.78

The study used Pearson correlation (Table 9) to examine the relationship between TOEFL, AEP and online learning skills. The findings indicate that both TOEFL and AEP are significantly related to online learning skills with TOEFL demonstrating a stronger correlation ($r= 0.858$, $p. =0.000<0.05$) than AEP ($r= 0.601$, sig. (p).= $0.000<0.05$). Furthermore, the analysis revealed that within the AEP component, there was also a significant correlation between AELP and online learning ($r=0.534$, sig. (p).= $0.000<0.05$), AESP and online learning ($r=0.395$, sig. (p).= $0.000<0.05$), AERP and online learning ($r=0.726$, sig. (p).= $0.000<0.05$) and AEWP and online learning ($r=0.469$, sig. (p).= $0.000<0.05$). The results suggest that higher English proficiency among teachers is associated with higher online learning skills.

Table 9. Pearson correlation between online learning usage and effectiveness.

Competencies	r (Correlation value)	Sig. (p)
TOEFL & online learning competencies	0.858	0.00
AEP & online learning competencies	0.601	0.00
AELP & online learning competencies	0.534	0.00
AESP & online learning competencies	0.395	0.00
AERP & online learning competencies	0.726	0.00
AEWP & online learning competencies	0.469	0.00

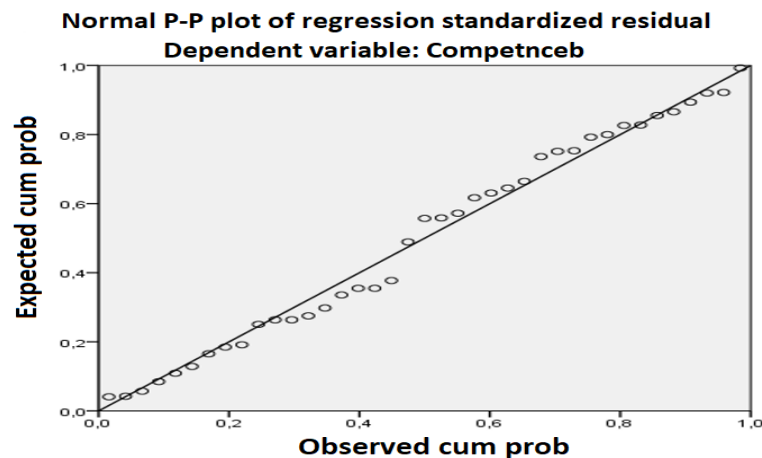


Figure 2. Normal curve probability plot.

3.2. Association of TOEFL Scores with Online Learning

The study examined the assumptions of multiple regression and the normality of the data was verified by a normal curve probability plot. The scatter plots in Figures 2 and 3 also indicated good data distribution. Table 11 shows that the Variance Inflation Factor (VIF) and tolerance were equal to 1 indicating the absence of collinearity or multicollinearity (Hair et al., 2006).

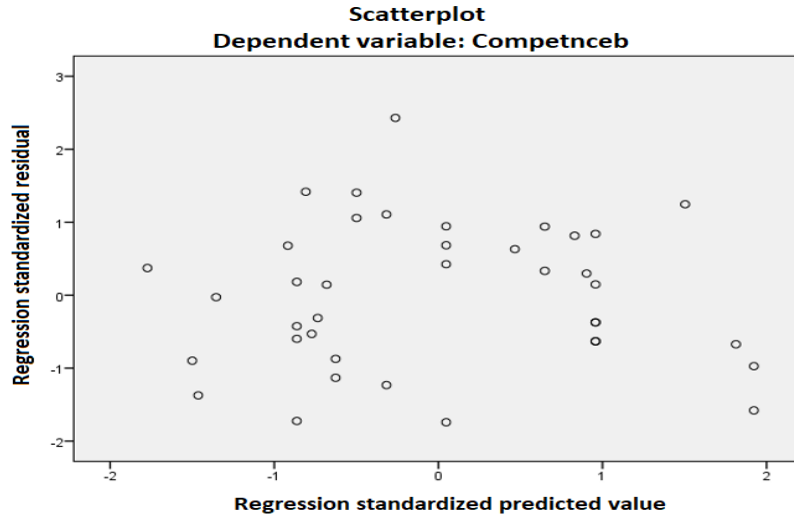


Figure 3. Scatterplot of normal data distribution.

Simple regressions with the entered method were used to explore the association between the independent variable (English proficiency) and the dependent variables (online learning skills). It is worth noting that the enter method is appropriate for simple regression (Hair et al., 2006; Pallant, 2011).

Tables 10 and 11 show the outcome of the regression analysis revealing a significant impact of English proficiency ($p < 0.05$) on the online learning skills of the teachers. According to Table 11, the strength of the relationship between English proficiency and teachers' online skills is $R^2 = 0.581$ indicating that the predictor accounts for 58% of the variance in online learning skills. The predictor coefficient (β) is 0.762 and the t-value is 7.15 with both significant at $p < 0.05$.

Table 10. Variants of teachers' TOEFL scores towards teachers' online learning skills.

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	6.268	1	6.268	51.229	0.000
	Residual	4.527	37	0.122		
	Total	10.795	38			

Note: The significant level is 0.01.

- a. Predictors: (constant), TOEFL score.
- b. Dependent variable: online learning competencies.

Table 11. Multiple regression of teachers' TOEFL scores towards teachers' online learning skills.

Predictor	B	Std. error	Beta	t	Sig.	R2	Contribution	Collinearity statistics	
								Tolerance	VIF
Constant	0.161	0.465		0.346	0.731				
English proficiency	0.007	0.001	0.762	7.15	0.00	0.581	58%	1.000	1.000

Note: R = 0.762,
R2 = 0.581
Adjusted R2 = 0.569
Constant = 0.161
Standard error = 0.001.

The regression equation for a predictor is $Y = .161 + .762X_1 + .001$
 $Y =$ Teachers TOEFL.
 $X_1 =$ Online Learning Skills.

3.3. English Proficiency Perception

The assumptions of multiple regressions had been investigated before conducting the analysis. The normality assumption was confirmed through a normal curve probability plot while the scatter plots (Figures 4 and 5) indicated that all statistical assumptions were met. Moreover, the absence of collinearity or multicollinearity was confirmed by the Variance Inflation Factor (VIF) being equal to 1 (not less than 1) and the tolerance being greater than 0.1 as shown in Table 13 column collinearity statistics (Hair et al., 2006).

In order to examine the relationship between the independent (the perception of AEP) and the dependent variables (online learning skills), simple regressions with the entered method were applied. The results of the regression analysis are shown in Tables 12 and 13 indicating a significant effect of AEP ($p < 0.05$) on their online learning skills. According to Table 9, the relationship between the perception of AEP and online learning skills of teachers is $R^2 = .361$ indicating that the predictor explained 36% of the variance during online learning skills. The predictor coefficient (β) is 0.601 and the t-value is 4.57, both significant at $p < 0.05$.

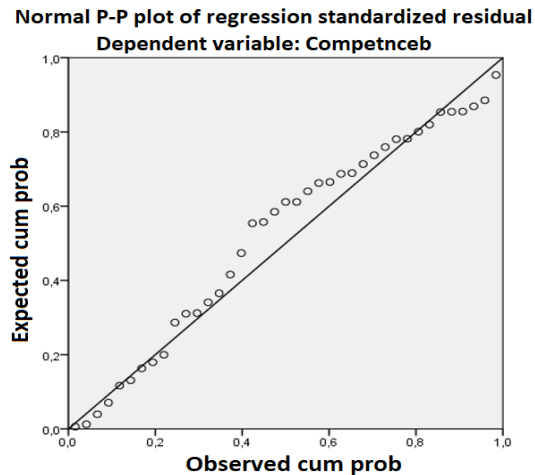


Figure 4. Normal curve probability plot.

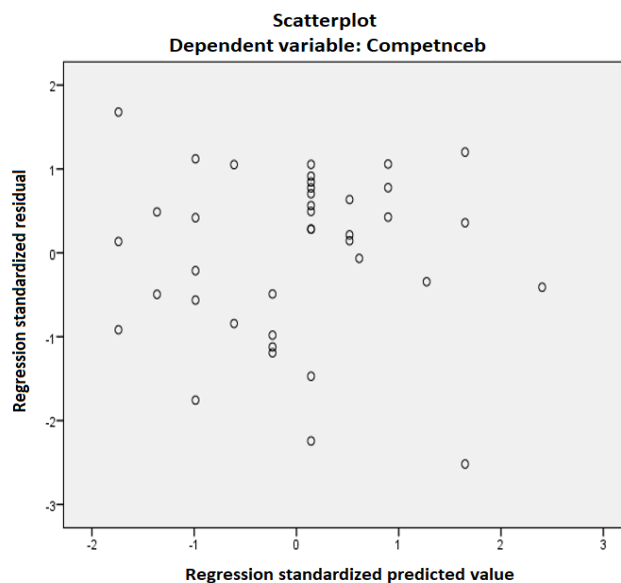


Figure 5. Scatterplot of normal data distribution

Table 12. Variants of multiple regression perceptions of AEP towards teachers' online learning skills.

Model	-	Sum of squares	Df	Mean square	F	Sig.
1	Regression	3.896	1	3.896	20.896	0.000
	Residual	6.899	37	0.186	-	-
	Total	10.795	38	-	-	-

Note: The significant level at 0.01.
 Predictors: (Constant), English perception.
 Dependent variable: Online learning skills.

Table 13. Multiple regression perceptions of AEP towards teachers' online learning skills.

Predictor	B	Std. error	Beta	T	Sig.	R2	Contribution	Colinearity statistics	
								Tolerance	VIF
Constant	2.067	0.314	-	6.578	0.000		-	-	-
Hard skills	0.482	0.106	0.601	4.571	0.000	0.36	36%	1.000	1.000

Note: R = 0.601
 R2 = 0.361
 AdjustedR2= 0.344
 Constant = 2.067
 Standard error = 0.106.

The regression equation with 2 predictors is $Y=2.067+.601X1+.106$

Y= Perception of AEP.

X1= Online Learning Skills.

4. DISCUSSION

The COVID-19 pandemic has shifted learning from face-to-face to online learning which requires highly competent teachers (Hadiyanto et al., 2021; Rapanta et al., 2020). Teachers stated that online learning skills were extremely necessary during the pandemic. However, this study reported that many teachers lack the online learning skills to replace the traditional classroom approach. This led to a significant gap between their needs and skills in online learning. In order to ensure the efficacy of online learning, teachers must possess a high level of online learning skills Mahyoob (2020); Finardi and Tyler (2015) and Ananiadou et al. (2014). It was recommended that the mean score of online learning skills teachers should be between 4.21 and 5.00 indicating a very confident level of proficiency.

The gap between necessity and online learning skills for each element is important. According to Albrahim (2020), online course design, communication, resource authenticity, time management and technical online learning skills were identified as the essential areas for teachers during the pandemic. Rapanta et al. (2020) highlighted the crucial role of a teacher's competence in pedagogical issues, online learning design, assessment and technical skills. This study reported that the online skills possessed by teachers in all elements were below the confidence level. Coman et al. (2020) also stated that the lack of online skills including time management, technical skills and learning design was a significant challenge in online learning during the pandemic. Some of the online learning elements were improperly adapted to the online environment and the authenticity of resources and technical skills possessed by the teachers were found to be unsatisfactory. IBO (2020) stated that one of the challenges teachers face in online learning is anticipating resource authenticity.

Hadiyanto et al. (2021) reported that students perceived online learning as inadequate and far from the ideal mean score of 4.20 required to replace face-to-face classes. The following categories: course design and communication, time management, technical skills were not optimally obtained making it ineffective in replacing classroom learning. This finding is consistent with previous studies by Coman et al. (2020), Rapanta et al. (2020) and Edelhauser and Lupu-Dima (2020) that lecturers were not adequately prepared for the sudden shift to online learning during the pandemic. Moreover, Dawadi et al. (2020) reported that most teachers lacked the necessary skills to conduct online classes as they were neither trained nor involved in this type of teaching. Previous studies by Suryaman et al. (2020), Mahyoob (2020) and Putri et al. (2020) reported that they faced significant challenges and obstacles in online learning including teaching methods, implementing the curriculum, material coverage, technological skills, communication between teachers and students, time management, authentic resources, coordination with colleagues, principals and higher internet bills. In conclusion, the evidence suggests that

teachers were not prepared for online learning during the COVID-19 pandemic across various countries. [Bao \(2020\)](#) also reported that most teachers were unprepared to use online learning during the pandemic.

The results which focused on one faculty are indicative of the broader situation within the institution. This is consistent with a previous study involving 441 students which revealed that online learning was not optimal or effective for replacing face-to-face classrooms. However, it also confirms the situation across universities in Indonesia and other developing countries such as Nepal, Brazil, Saudi Arabia and Romania ([Albrahim, 2020](#); [Coman et al., 2020](#); [Dawadi et al., 2020](#); [Edelhauser & Lupu-Dima, 2020](#); [Rapanta et al., 2020](#)). It is essential to conduct a comprehensive study on the implementation of online learning across different countries to provide reliable evidence and support.

In order to ensure effective implementation of online learning, it is practical to engage in collaborative teaching across departments and universities, both domestic and international. Moreover, it is important to conduct intensive and evaluative training to improve the online knowledge and skills of teachers in areas such as technical proficiency, communication with students and online course design. Action, surveys and qualitative studies should continue to focus on specific aspects of online learning and be conducted collaboratively and intensively to foster innovation and improvement.

4.1. English Proficiency and Online Learning

This study reported a notable relationship between TOEFL, perception of AEP and online learning skills. The correlation between TOEFL and online learning skills was found to be stronger compared to the perception of AEP towards online learning skills as TOEFL scores are more authentic than the perception of AEP. The respondents were unable to report the TOEFL or IELTS score of each category limits further investigation of the correlation between TOEFL in each category. The correlation between TOEFL and AEP indicates that English proficiency is significantly associated with online learning skills. Positive correlations were found between all AEP elements and online learning skills. Further analysis revealed a significant relationship between TOEFL score, AEP and online learning skills.

According to [Lindner \(2014\)](#), the attitude and proficiency of teachers in using ICT are closely related to their language skills. Teachers with higher proficiency in English are more likely to have a positive attitude and a better understanding of using ICT. [Mahyoob \(2020\)](#) and [Kuama \(2016\)](#) also stated that ESL students with higher English skills were more successful in online learning. Furthermore, [Finardi and Tyler \(2015\)](#) reported that good English proficiency is a critical factor for accessing and benefiting from MOOCs in online learning. [Kuama \(2016\)](#) reported that students with low English proficiency lacked online learning skills, experiences and readiness for this approach. According to [Ananiadou et al. \(2014\)](#), English is the language of technology and its skills play a crucial role in mastering educational technology.

4.2. General Implication

It is crucial to assess the skills of lecturers in various aspects in order to achieve successful online learning implementation in universities such as course design, communication, resource authenticity, time management and technical skills. Lecturers play a significant role in utilizing technology in the teaching and learning process and their inadequate skills and understanding can hinder the successful implementation of online learning ([Ananga & Biney, 2017](#)). [Hadiyanto et al. \(2022\)](#) stated that their readiness and skills are indicators of an institution to implement online learning. Supporting staff to improve their online application skills in the teaching process is crucial for the long-term success of policy implementation, thereby leading to a stable and reliable environment. During the COVID-19 pandemic, higher education institutions are facing challenges in implementing online teaching and learning. Nonetheless, universities must adopt and adjust their courses to an online format to meet the needs of students. Regular evaluations of awareness, knowledge and skills by teachers are necessary to enhance online learning. Teachers must possess adequate online learning knowledge and skills.

Although some online learning applications incorporate multilingual languages such as Bahasa, the utilization of this language is limited and its technical terms are often mistranslated. In contrast, English is widely used as an international and technological language for online learning features such as coding, captions, tags and user manuals. Based on these findings, the study recommends changes in educational policies that emphasize the role of English. Bilingual training and tutorials incorporating both English and the national language need to be

implemented to familiarize teachers with technological English specifically for online learning. The development of English proficiency through online learning will enable teachers to expand their online learning skills.

5. CONCLUSION

In conclusion, a major challenge that hindered the implementation of online learning in higher education during the COVID-19 pandemic was the inadequate technological device operation skills and poor English proficiency of teachers. This affected their ability to transform pedagogical approaches into effective online learning applications. This study reported that the online course design, communication, resource authenticity, time management and technical abilities of these teachers were crucial but unsatisfactory. The lack of skills led to low-quality implementation and effectiveness. Hadiyanto et al. (2022) highlight the need for teachers' preparedness in online learning. Policymakers, quality assurance units, department heads and faculty deans must collaborate to provide maximum online learning skill development opportunities for teachers. Ultimately, this study aims to contribute to the theory and practice of online learning for all levels of education during the COVID-19 pandemic.

FUNDING

This study received no specific financial support.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

ARTICLE HISTORY

Received: 13 March 2023/ Revised: 28 April 2023/ Accepted: 8 May 2023/ Published: 18 May 2023

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study.

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