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Online Language Testing: Effect of Digital Technology Awareness on English Proficiency Test Results of University Students

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Abstract: English is an international language and therefore people seek to master the language. To measure English language proficiency, many institutions, including universities, administer English proficiency tests both online and offline. Since the COVID-19 pandemic, such tests have been conducted online. Online tests entail several problems that greatly affect test outcomes. This study aims to determine the factors affecting online test results. It is a qualitative, descriptive study that employs a random sampling technique with data obtained through interviews and documentation of thirty respondents. The results show that increased technology awareness of the test-takers has a positive effect on their results. That is, the increase or decrease in test scores is proportional to the technological awareness of the test-takers.

Keywords: Online Language Testing, English Proficiency Test, Digital Technology Awareness

Introduction

Globally, English plays an important role in the pursuit of knowledge. This is because English is recognized as an international language that is actively used by people around the world to communicate, both in writing and speech (Fan and Yan 2020). This has resulted in an increase demand for English language proficiency in the world. Not only among academics, scholars, and students, but also for other professional occupations, such as businessmen or economists, medical workers, and even engineers, English is a critical requirement these days. To measure levels of English proficiency, experts and linguists from many English-speaking countries, such as the United States, England, Canada, Australia, and many others, have designed standards for language proficiency tests. The types of language proficiency tests presented are also varied, namely: TOEFL (Test of English as a Foreign Language), TOEIC (Test of English for International Communication), IELTS (International English Language Testing System), CAE (Certificate in Advanced English), and many more (Rahmat et al. 2015). These tests have been introduced worldwide in order to test the English proficiency levels of these users—both ESL (English as a Second Language) and EFL (English as a Foreign Language) users. The linguistic skills or abilities tested are based on the understanding or mastery of various aspects of the language, such as grammar, sentence construction, vocabulary, contextual understanding/meaning, and others (Sulistyo and Suharyadi 2018; Richards et al. 2013). In Indonesia, English has been introduced nationally, from the earliest level of education (TK) up to further education (college), and is actively used not only for educational purposes but also in the professional world (Sulistyo and Suharyadi 2018). This situation has given rise to a crucial need to implement a standardized test of English proficiency/ability (Wulyani, Elgort, and Coxhead 2019).

The English proficiency test is used to assess competence at the phoneme level, with regard to native speaker pronunciation, grammar, fluency, and lexical stress (Jing 2019). For decades, English has been introduced as a foreign language and has become one of the compulsory

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subjects for students at the junior levels (elementary school and junior high school) as well as at the senior levels (senior high school, college, and university). Moreover, English is included in the basic curriculum (general subject) in the senior levels, such as in vocational schools, colleges, and universities. Besides being included in the learning curriculum, English is also one of the main subjects tested during college or university enrolment tests. This is due to the importance of English in the country and abroad, not only in the academic world but also in work life. Thus, it is a “must-have” skill to be acquired by those graduating from schools and universities. This is supported by the government establishing the Regulation of the Ministry of Education of the Republic of Indonesia Number 73, year 2013 and the Regulation of the Ministry of Research, Technology and Higher Education of the Republic of Indonesia Number 44, year 2015 concerning qualifications of higher education graduates in Indonesia. Both regulations have been established to answer the needs and challenges of the changing era where English has become essential in achieving future goals. In accordance with the regulations, both public and private universities in Indonesia agree to consider English as one of the graduation requirements. Accordingly, every higher education institution conducts various types of English proficiency tests by adopting and adapting standardized models of English proficiency test questions such as those from TOEFL-ITP, TOEIC, and IELTS.

The TOEFL-ITP is the test model that is mostly used by various institutions (Wulyani, Elgort, and Coxhead 2019; Yuyun et al. 2018). Based on many studies conducted previously, (Wulyani, Elgort, and Coxhead 2019; Yuyun et al. 2018; Renandya, Hamied, and Nurkamto 2018) it is found that TOEFL-ITP or TOEFL paper-based model is the most common model used in English proficiency testing. This model serves as a reference or baseline to design English proficiency tests for students, office workers, or government officers, up to police and military personnel. The TOEFL-ITP test assesses three aspects, namely, listening comprehension, grammar understanding (language structure), and reading comprehension, which are considered as passive skills that can measure one’s level of proficiency in English (Renandya, Hamied, and Nurkamto 2018; Lee and Schallert 2012). Based on various considerations, the Language Center of Universitas Negeri Surabaya (Unesa) has adapted TOEFL-ITP into TEP (Test of English Proficiency) to test the English proficiency levels of students and other test takers.

Digital technology is now used in almost all contexts and domains, such as business, communication, health, government, and education. As this technology is utilized not only for personal interest but also for professional use, it becomes inseparable from culture and society (Hargittai 2010; Reynolds 2016). Apart from the advantages it offers, digital technology has also significantly influenced individuals; thus, an imbalance between one’s awareness of the technology and the utilization of technology applications creates various problems and issues (Reynolds 2016). The more developed the era is, the greater the need to utilize and master the technology. This is because technology serves as a means to process, store, and display or present data, information, and knowledge so it can be accessed and enjoyed publicly. However, facts show that the use of digital technology remains imbalanced theoretically and practically (Rahmah 2015), which means that digital technology has not been used optimally for more beneficial purposes, as it is associated mostly with entertainment. This shows the lack of knowledge and awareness with regard to the use of technology, especially as media for information, education, and professional spheres. For years, there have been many studies and research conducted by experts from all fields on the use of digital technology as well as its applications, including in education. Many education practitioners and policy makers have learned about methods, approaches, and strategies regarding digital technology interventions (Kümmel et al. 2020; Dunn 2019; Akpojotor 2016; Shariman, Razak, and Noor 2012).

Implementing digital technology in education requires an understanding and awareness of technology, not only on the part of teachers but also that of students. However, this situation changed when the COVID-19 pandemic started at the end of 2019. This pandemic forced people to start reevaluating the use of technology for other purposes, one of which is education. In the conventional education system, learning and evaluation are carried out through the face-

to-face (offline) method. However, with the physical distancing and social restriction policy put in place because of the pandemic, the online method began to be introduced in order to replace the conventional method and in order to ensure the continuity of the education process. As a result, many educational institutions, including universities, have been providing their learning activities and conducting evaluation online. Similarly, the English proficiency test conducted by universities has also been adjusted to the online version.

Since the COVID-19 pandemic emerged in 2019, the world of education in Indonesia has experienced quite a shock because the education system in Indonesia, both formal and informal, prioritizes conventional learning models. With massive social restrictions, conventional learning activities had to be stopped. In response to this situation, educational institutions have tried to set up distance learning systems online so that educational activities can continue to run. There is no exception for institutions that administer English proficiency tests, one of which is the university language center. As the pandemic situation is now improving, many educational institutions and test providers are reconsidering reopening offline (face-to-face) services, but they continue to prioritize online services (Eaton 2020; Hussain et al. 2020).

In organizing these online activities, various problems and obstacles arise for both service providers and users of educational services, which lead to a nonoptimal quality of education (Hussain et al. 2020). Paradoxically, service recipients in the field of education, such as students, parents, and academic practitioners consider the evaluation or test scores of students as a benchmark for the quality of educational services (Hodges et al. 2020) without assessing other factors that influence the quality of education associated with the acquisition of these results (Hussain et al. 2020). The sudden and massive transition from face-to-face learning to online learning caused by the COVID-19 pandemic has exacerbated the problems related to the teaching and testing processes. According to Eaton (2020), when educational service recipients and service providers (educational institutions and teachers) are not familiar with an online education system, the success of the service will be affected. In addition, Eaton also mentions that one of the causes of these problems is the lack of experience and training on online education services (Eaton 2020).

Indonesia as a developing country faces various problems related to the implementation of online education services. Universities and institutions within universities also experience a red zone, which is a zone where various cases and problems regarding the implementation of educational services emerge from various sides (Firman 2020). One of the causes of this is the lack of awareness about digital technology among students (Nugroho, Wati, and Dianastiti 2020). Nugroho, Wati, and Dianastiti (2020) mentioned that students' technological awareness is only limited to entertainment functions, such as social media or games. This condition is exacerbated by the geography of Indonesia, which consists of various small islands where internet services have not yet reached.

As an English proficiency test service center, the Language Center of Universitas Negeri Surabaya is required to continue to provide test activities for all Universitas Negeri Surabaya (Unesa) students. This is the reason why Unesa's Language Center introduced internet-based test in place of its former paper-based test for TEP. It has been found that the test scores of TEP candidates have decreased. This served as a suitable reason to conduct research on TEP implementation. This study aims to determine the effect of digital technology awareness of test participants on the online test results (TEP scores). In addition, to narrow the area of observation and analysis, this study focused on the participants' knowledge of digital technology and not on their readiness with regard to the test material.

Literature Review

Online Language Testing

In previous decades, technology functioned only as a communication tool. However, as it developed, technology began to be used for other things, such as education, economic analysis, and much more (Westhuizen 2016). According to Summak, Samancioğlu, and Bağlıbel (2010),

the influence of technology on the world of education began when the internet emerged. The areas of education touched by the internet include not only learning activities, but also evaluation and tests. According to Brown (2014), evaluation is an integral part of the teaching and learning cycle and so it appears continuously in the curriculum. Tests are important components of a successful curriculum and a part of the assessment system that can provide authenticity, motivation, and feedback to students.

Language testing/assessment is a subfield of applied linguistics in which various types of experts work to examine and assess problems from a broad perspective ranging from norm reference testing as a reference for achievement testing criteria (McKay and Brown 2015). Various models are often used in online tests, such as Quiz, Gform, Kahoot, etc., and the use of SEB (secure exam browser) allows test service providers to use certain applications to carry out their tests (Rerung and Junita 2020; Yulia, Husin, and Anuar 2019; Álvarez 2016). The use of online platforms as a means to assess/test students' language skills has several advantages, including reducing the level of cheating, speed, response, and unlimited space (distance) so that results can be obtained quickly (Donelli-Sallee 2018). And now, because of the COVID-19 pandemic that has hit the world, all assessments/exams/learning evaluations must be done online (remotely) in any case (Yulianto and Mujtahid 2021; Li et al. 2021; Hussain et al. 2020).

English Proficiency Test

As the use of English as an international language increases significantly, standardized English testing has emerged as a common practice. The standardized English test is a tool to measure formal English proficiency, which is often used as a parameter to assess an individual's level of proficiency in various fields, such as education and finance, or even to gauge social status (Yuyun et al. 2018). English proficiency test refers to a test designed to measure people's proficiency in the English language. Several previous studies have found that English proficiency is influenced by several factors, including language learners, teachers, language, environment, and stakeholders (Hung and Huang 2019; Jing 2019; Yuyun et al. 2018; Allen 2016; Ito 1996). According to Allen (2016) and Yuyun et al. (2018), success in the English proficiency test is comparable to the amount of preparation put in by the participants before taking the test. According to Dunkin and Biddle (1974), the role of learning in improving English proficiency is related to other variables, including process variables, context variables, and presage variables (Sulistyo and Suharyadi 2018). In line with the opinion of Dunkin and Biddle (1974), Sulistyo and Suharyadi (2018) state that language proficiency has different definitions depending on the model or type of test carried out. According to Chomsky (1985), language proficiency is competence and performance related to one's language knowledge and use of that language in the actual context, namely communication (Bacarić and Djigunović 2007). In the context of teaching English, language proficiency plays an important role for students in completing their studies in English in secondary schools, especially for those whose first language is not English (Li, Chen, and Duanmu 2010; Wardlow 1989). Therefore, those who desire to have good language skills must master the language skills or competencies needed to be able to communicate well (Sulistyo and Suharyadi 2018). Meanwhile, Bachman and Palmer (2010) state that language proficiency covers organizational knowledge, grammatical knowledge, textual knowledge, pragmatic knowledge, functional knowledge, and sociolinguistic knowledge. In this study, the English proficiency test used was adapted from the TOEFL-ITP, and so this test has three parts, namely listening comprehension, structure and written expression, and reading comprehension.

Digital Technology Awareness

Digital awareness is not just knowing how to use a computer but rather a person's ability to utilize digital technology networks (Kulkarni and Ramesha 2021), including internet literacy, and an understanding of the use of the internet not only for social and business purposes, but also for

academic purposes (Reynolds 2016). Rahmah (2015) states that education and technology cannot be separated, especially in the modern age where technology has become an inseparable part of human life (Kulkarni and Ramesha 2021). Improving performance in utilizing digital technology requires skills, knowledge, and awareness of digital technology itself (Reynolds 2016). Some previous studies found a relationship between a person's level of knowledge and digital awareness with regard to writing skills (Tan, Ng, and Saw 2010; Shariman, Razak, and Noor 2012); furthermore, digital awareness affects the world of education, especially in the teaching system and with regard to student ability (Coburn 2020; Chibbaro, Ricks, and Lanier 2019; Nyagorme et al. 2017; Yacoba et al. 2012). Therefore, digital awareness highly relates to success in academic achievement (Kümmel et al. 2020; Akpojotor 2016).

Method

This study was a qualitative study employing a descriptive approach with the data obtained from the interviews and documentation. The respondents were thirty students (consisting of 10 undergraduate students, 10 graduate students, and 10 postgraduate students) of Universitas Negeri Surabaya pursuing different majors. The respondents were randomly selected using simple random sampling. Respondents were divided into three groups (UG, G, and PG) before calculating the percentage of the TEP score. The data used were from the last offline test and the first online test taken. Data were analyzed using the Miles and Huberman technique to analyze qualitative research, while the Linkert scale is employed to measure each variable concerned according to the interview (see Table 1). In addition, a percentage was drawn from the documentation of the participants' test results as well as the questionnaire to determine the results of the study.

Table 1: Linkert Scale to Measure Variables

Score	TA	IC	MU	PC
1	Poor	Poor	Poor	0
2	Adequate	Unstable	Adequate	1 ×
3	Good	Adequate	Good	2 ×
4	Very good	Good	Very good	3 ×
5	Excellent	Excellent	Excellent	More than 3 ×

Results and Discussion

Participants' Characteristics

The participants in this study were students of Universitas Negeri Surabaya who took the TEP at Unesa's (Universitas Negeri Surabaya) Language Center. There are thirty respondents randomly selected (with their characteristics described in Table 2). Among the thirty participants, eighteen are female students (60%) and the remaining are male students (12 students or 40%). The ages range from 18 to more than 45, with most aged between 18 and 23 (40%). The study selected ten students for each level of education (undergraduate, graduate, and postgraduate programs). The places where the respondents took their online tests are 43.33 percent in the city, 30 percent in the suburbs (area outside the city), 10 percent in villages, and 16.67 percent in remote areas (out of Java or in other islands). Lastly, with regard to the respondents' awareness or knowledge in using technology, it is found that 40 percent are very good at understanding technology, 33.33 percent are good (having adequate knowledge of the technology and dealt with it), and 26.67 percent have poor knowledge of digital technology.

Table 2: Participants’ Characteristics

<i>Items</i>	<i>Total R</i>	<i>Percentage</i>
Gender		
Male	12	40
Female	18	60
Age		
18–23	12	40
24–29	3	10
30–35	8	26.67
35–45	5	16.67
45+	2	6.67
Level of Last Education		
Senior high school	10	33.33
Undergraduate program	10	33.33
Postgraduate program	10	33.33
Place (location where the online test was taken)		
City (downtown)	13	43.33
Suburb (town/county)	9	30
Rural (village)	3	10
Remote (out of Java)	5	16.67
Digital Technology Awareness		
Very good	12	40
Good	10	33.33
Poor	8	26.67

Results

From the data analysis, it is found that generally, in each group, the students’ scores declined when the test was taken online. The results show that 70 percent of students who took the online test (for the first time) have a declining score, while only 30 percent increased their scores (see Table 3). Of the three groups (UG, G, and PG), the highest rate of decline (the worst) is from PG (30%), which consists of students aged 30 and above, while the least decline is from UG (16.67%). The UG group consists of students aged from 18 to 23 years old who have a very good understanding of technology. Meanwhile, the PG group consists of older students who have difficulties in dealing with technology; this was reflected in their results of the online tests as well. Moreover, the interview obtained data that state the factors that influence their TEP results. Among the variables observed, internet connection and technology awareness represent the causes that mainly hinder the test-takers in carrying out the test (16 respondents faced problems with their internet connection as well as with technology awareness). It was shown by the data that more than 50 percent (16) of students had poor and inadequate awareness of technology and internet connection, while 20 percent (6) of students had good technology awareness, and 10 percent (3) of students had good internet connection. The data indicate that both technology awareness and internet connection serve as the main reasons why students decreased their TEP scores on online testing. Furthermore, understanding of the material and preparation classes served as secondary causes in obtaining the expected results. This were proved by the fact that only the 5 students who did not take any preparation classes did not have a good understanding of the materials (25 students had material understanding from adequate to excellent) (see Table 4).

Table 3: The Percentages for the Online-Offline Tests of All Respondents

<i>Groups</i>	<i>Inclined</i>		<i>Declined</i>	
	<i>Number of R</i>	<i>Percentage</i>	<i>Number of R</i>	<i>Percentage</i>
UG	5	16.67	5	16.67
G	3	10	7	23.33
PG	1	3.33	9	30
Total R	9	30	21	70

Table 4: Factors Influencing the English Proficiency Test Result

<i>Item</i>	<i>Average Score Scaling</i>				
	1	2	3	4	5
Technology awareness (TA)	6	10	6	5	2
Internet connection (IC)	10	6	3	3	9
Material understanding (MU)	5	7	10	5	3
Preparation class (PC)	5	10	10	3	2

Discussion

From the data obtained, it is revealed that among the four variables observed, technology awareness and internet connection serve as the two major causes affecting students' performances in online tests. Of the thirty respondents, six state their difficulties with technology (they had a lack of awareness about how to use technology well) and ten of thirty respondents faced a similar situation (with an adequate awareness in using technology) in which the respondents failed to perform well on the online test. From the interview, it was found that the main reason why they cannot do well during the test is that they have no idea how to do the test (online). It was seen that some of the respondents had already taken the offline TEP more than once (twice more). Although some of the results still did not meet the required scores for passing, most made adequate improvement during the offline test; conversely in the online test, their scores drastically fell. However, some of the respondents mentioned that they attended preparation classes to prepare for the online test. From the analysis, it is found that most of the respondents who increased their scores (during the online test) had attended preparation classes. This result is in line with previous studies that agree that success in online assessment or testing relates to the students' (test-takers') awareness of the media used for the testing, in this case, an online platform (Hamidah 2021; Fan and Yan 2020; Hussain et al. 2020; Jing 2019; Nyagorme 2017; Álvarez 2016; Rahmat et al. 2015; Ito 1996).

The second problem found in the study is to do with internet connection. Although internet connection has no relation to individual knowledge of technology, the understanding of what kind of internet connection should be used or how to maintain the stability of the connection to ensure that the test runs well is important. In this study, it is found that ten of thirty respondents faced problems of poor internet connection. Some of them got disconnected several times because the connection was bad or because they had low bandwidth, while six of thirty indicate that they experienced unstable connections during the test. These situations significantly affect the test-takers' performances during the online test. Some of the respondents mention that they had no idea how to troubleshoot the problems, resulting in less concentration and confidence to finish the test or to perform well. This supports the findings of previous studies which mention the influence of technology on online tests (Coburn 2020; Dunn 2019; Nyagorme et al. 2017; Akpojotor 2016; Hamidah 2021; Hargittai 2010; Bacarić and Djigunović 2007).

With regard to understanding the material, most respondents have adequate knowledge of the materials tested because there is no difference between offline and online tests in this regard (see Table 4). It is proved from the interview that most respondents had a similar understanding of the test (either offline or online). They mentioned that the problem was not due to the material tested, but came from their difficulties in demonstrating their theoretical knowledge during the test because they were confused with the mode of testing. Thus, having knowledge or preparing beforehand was useless. Similarly, with regard to preparation classes, 5 students did not attend any class, while 10 of them attended once. Among those 10 students, 6 of them attended classes for online testing meaning that they prepared before the online test was taken. From the interview, it is found that although the class did not have a significant effect on their result, it certainly gave them the knowledge of how to do the test, proved by the fact their scores did not drastically fall. Both conditions, especially material understanding, had no significant effect on the declining or increasing of the TEP scores obtained in the offline or online tests. However, having preparation classes before the online test certainly influenced the result obtained by the test-takers because

they had at least a bit of knowledge or awareness of the type of online test they were due to face. These findings support previous studies related to both offline or online language testing, as well as students' understanding of online instruction (Coburn 2020; Eaton 2020; Hodges et al. 2020; Chibbaro, Ricks, and Lanier 2019; Dunn 2019; Jing 2019; Donelli-Sallee 2018; Nyagorme et al. 2017; Brown 2014; Hargittai 2010; Bacarić and Djigunović 2007).

Furthermore, from the data of the TEP results, it is found that UG students show less decline compared to the other groups (G and PG) (see Table 3). This indicates that those in the younger age group have a better understanding of technology (technology awareness) than older groups. From the interviews, it was observed that this group has better experience in dealing with technology and better adaptability in adjusting to the media used for the test, while the postgraduate (PG) group shows the highest percentage of decline because this group consists of the older generations (ages starting from 30 upward). This shows that the group has less understanding of technology due to their lack of experience in using such technology, as well as because of their familiarity with conventional learning or testing (paper based). This finding is in line with the previous studies conducted by Hussain et al. (2020) and Hung and Huang (2019) who find that different conditions affect the results of language assessment, one of them being individual awareness of technology.

Conclusion

It can be concluded that in conducting online language testing for EFL and ESL learners, there are several issues that can affect test-takers' success in the tests. Of the four variables discussed, two of the main obstacles in conducting online tests successfully are a lack of technology awareness and poor internet connections. Both factors, technology awareness and internet connection, were shown to significantly affect the performance of online test-takers. The issue of a lack of technological awareness can be addressed by preparing participants on the use of online media (digital technology) in the test, including solving problems that may arise during the test. Meanwhile, internet connection is a problem to be addressed by policy holders (government) to ensure the spread of this technology evenly. While the other two variables, namely material understanding and class preparation, show a positive influence on the success of test-takers, from the results of data processing, these two factors have not been proven to have any significant effect on students' learning outcomes, possibly because there are other factors that have not been discussed in this study. The results of this study imply that problems, especially those related to technology, can be avoided if test-takers prepare themselves by searching for information and increasing their technology awareness, especially for taking online tests. Findings show that with seeking knowledge related to the online platform that is used as a testing medium, the TEP result scores have not decreased (some have even increased).

The results of this study are expected to provide information that can help institutions administering language proficiency tests, especially in English, to prepare test participants before taking online tests. For further research, it is recommended that the influence of other variables, both individual (background, self-efficacy, self-concept, stress, etc.) and environmental (institution administering the test, online platform used, social situation, etc.) on the test taker's success be examined (in obtaining a high TEP score). In addition, further studies can analyze the specific language skills that might prove to be an obstacle in achieving successful outcomes in the tests.

Implications and Suggestions for Further Research

The results of this study suggest that there is a need to conduct further studies for other variables influencing the success of EFL learners in online English proficiency tests. Further studies using a greater number of respondents need to be carried out in order to prove whether

the results of this study remain the same. In addition, other factors such as the locations where the test-takers take the online test, the devices they use, and the ages of the test-takers will influence the results. This study may serve as a reference for institutions (test providers) in preparing and designing their policies with regard to online testing and could assist test-takers in mitigating some of the problems affecting their success in online tests.

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REFERENCES

- Akpojotor, Lucky O. 2016. "Awareness and Usage of Electronic Information Resources among Postgraduate Students of Library and Information Science in Southern Nigeria." *Library Philosophy and Practice* 1408:1–23. <http://digitalcommons.unl.edu/libphilprac/1408>.
- Allen, David. 2016. "Investigating Washback to the Learner from the IELTS Test in the Japanese Tertiary Context." *Language Testing in Asia* 6 (7): 1–20. <https://doi.org/10.1186/s40468-016-0030-z>.
- Álvarez, M. F. 2016. "Language Testing in the Digital Era." In *Technology-Enhanced Language Learning for Specialized Domains: Practical Applications and Mobility*, edited by Elena Martín-Monje, Izaskun Elorza, and Blanca García, 61–72. New York: Routledge.
- Bacarić, Vesna, and Jelena Mihaljević Djigunović. 2007. "Defining Communicative Competence." *Metodika: Journal of Theory and Application of Teaching Methodologies in Preschool, Primary, Secondary and Higher Education* 8 (14): 94–103. <https://hrcak.srce.hr/file/42651>.
- Bachman, L. F., and A. S. Palmer. 2010. *Language Testing in Practice*. Oxford: Oxford University Press.
- Brown, James Dean. 2014. "The Future of World Englishes in Language Testing." *Language Assessment Quarterly* 11 (1): 5–26. <https://doi.org/10.1080/15434303.2013.869817>.
- Chibbaro, Julia S., Lacey Ricks, and Bethany Lanier. 2019. "Digital Awareness: A Model for School Counselors." *Journal of School Counseling* 17 (22): 1–27. <https://eric.ed.gov/?id=EJ1222989>.
- Chomsky, Noam. 1985. *Aspects of the Theory of Syntax*. 14th printed. Cambridge, MA: MIT Press. <http://www.colinphillips.net/wp-content/uploads/2015/09/chomsky1965-ch1.pdf>.
- Coburn, Jon. 2020. "Defending the Digital: Awareness of Digital Selectivity in Historical Research Practice." *Journal of Librarianship and Information Science* 53 (3): 398–410. <https://doi.org/10.1177/0961000620918647>.
- Donelli-Sallee, E. 2018. "Supporting Online Teaching Effectiveness at Scale: Achieving Efficiency and Effectiveness through Peer Review." *Journal of Educators Online* 15 (3): 1–17. <https://eric.ed.gov/?id=EJ1199112>.
- Dunkin, Michael J., and Bruce Biddle. 1974. *The Study of Teaching*. New York: Holt, Rinehart & Winston.
- Dunn, James D. 2019. "Critical Cultural Awareness and Learning through Digital Environments." In *CALL and Complexity—Short Papers from EUROCALL 2019*, edited by F. Meunier, J. Van de Vyver, L. Bradley, and S. Thouësny, 130–136. Legal deposit, France: Research-publishing.net. <https://doi.org/10.14705/rpnet.2019.38.998>.
- Eaton, Sarah Elaine. 2020. "Academic Integrity during COVID-19: Reflections from the University of Calgary." *International Studies in Educational Administration* 48 (1): 80–85. <https://drsaraheaton.files.wordpress.com/2020/07/eaton-isea-2020-481.pdf>.

- Fan, Jason, and Xun Yan. 2020. "Assessing Speaking Proficiency: A Narrative Review of Speaking Assessment Research within the Argument-Based Validation Framework." *Systematic Review Article on Frontiers in Psychology* 11 (330): 1–14. <https://doi.org/10.3389/fpsyg.2020.00330>.
- Firman. 2020. "Dampak Covid-19 terhadap Pembelajaran di Perguruan Tinggi" [English: The Effect of Covid-19 Pandemic in Learning Activity of the University]. *BIOMA* 2 (1): 14–20. <https://ojs.unsulbar.ac.id/index.php/bioma/article/download/743/406>.
- Hamidah, Nuriyatul. 2021. "Digital Literacy in EFL Teaching." *ELTALL (English Language Teaching, Applied Linguistics and Literature)* 2 (2): 90–102. <https://jurnal.iainponorogo.ac.id/index.php/eltall/article/view/3213/1790>.
- Hargittai, Eszter. 2010. "Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the 'Net Generation.'" *Sociological Inquiry* 80 (1): 92–113. <https://doi.org/10.1111/j.1475-682X.2009.00317.x>.
- Hodges, Charles, Stephanie Moore, Barb Lockee, Torrey Trust, and Aaron Bond. 2020. "The Difference between Emergency Remote Teaching and Online Learning." *EDUCAUSE Review*, March 27, 2020. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>.
- Hung, Shao-Ting Alan, and Heng-Tsung Danny Huang. 2019. "Standardized Proficiency Tests in a Campus-Wide English Curriculum: A Washback Study." *Language Testing in Asia* 9 (21): 1–17. <https://doi.org/10.1186/s40468-019-0096-5>.
- Hussain, Elham T., Sumya Daoud, Hussam Alrabaiah, and Amjad K. Owais. 2020. "Students' Perception of Online Assessment during the COVID-19 Pandemic: The Case of Undergraduate Students in the UAE." Paper presented at the 2020, 21st International Arab Conference on Information Technology (ACIT), 1–6. <https://doi.org/10.1109/ACIT50332.2020.9300099>.
- Ito, Akihiro. 1996. "Testing English Tests: A Language Proficiency Perspective." *JALT Journal* 18 (2): 183–198. <https://jalt-publications.org/files/pdf-article/jj-18.2-art1.pdf>.
- Jing, Xiaoyan. 2019. "The Reliability and Validity of Language Proficiency Assessments for English Language Learners." *Frontier of Higher Education* 1 (1): 36–42. <https://doi.org/10.36012/fhe.v1i1.893>.
- Kulkarni, Deepa R., and Ramesha. 2021. "An Assessment of Digital Literacy Skills among Secondary School Children: A Study of Belgaum District, Karnatak." *International Journal of Multidisciplinary Educational Research* 10 (5): 33–40. [http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume10/volume10-issue10\(5\)/6.pdf](http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume10/volume10-issue10(5)/6.pdf).
- Kümmel, Elke, Johannes Moskaliuk, Ulrike Cress, and Joachim Kimmerle. 2020. "Digital Learning Environments in Higher Education: A Literature Review of the Role of Individual vs. Social Settings for Measuring Learning Outcomes." *Education Sciences* 10 (78): 1–19. <https://doi.org/10.3390/educsci10030078>.
- Lee, Jeong-Won Diane, and Lemonnier Schallert. 2012. "The Relative Contribution of L2 Language Proficiency and L1 Reading Ability to L2 Reading Performance: A Test of the Threshold Hypothesis in an EFL Context." *TESOL Quarterly* 31 (4): 713–739. <https://doi.org/10.2307/3587757>.
- Li, G., W. Chen, and J. L. Duanmu. 2010. "Determinants of International Students' Academic Performance: A Comparison between Chinese and Other International Students." *Journal of Studies in International Education* 14 (4): 389–405. <https://doi.org/10.1177/1028315309331490>.
- Li, Mengzhou, Lei Luo, Sujoy Sikdar, Navid Ibtehaj Nizam, Shan Gao, Hongming Shan, Melanie Kruger, et al. 2021. "Optimized Collusion Prevention for Online Exams during Social Distancing." *npj Science of Learning* 6 (5): 1–9. <https://doi.org/10.1038/s41539-020-00083-3>.

- McKay, S. L., and J. D. Brown. 2015. *Teaching and Assessing EIL in Local Contexts around the World*. New York: Routledge.
- Nugroho, Singgih, Anggita Wati, and Firstya Dianastiti. 2020. "Kendala dan Solusi Pembelajaran Daring di Perguruan Tinggi" [Constraints and Solutions in the Implementation of Online Lesson in Higher Education]. *JALABAHASA* 16 (2): 196–205. <https://doi.org/10.36567/jalabahasa.v16i2.700>.
- Nyagorme, Paul, Albert Qua-Enoo, Brandford Bervell, and Valentina Arkorful. 2017. "The Awareness and Use of Electronic Learning Platforms: A Case of a Developing Country." *World Journal of Computer Application and Technology* 5 (2): 13–23. <https://doi.org/10.13189/wjcat.2017.050201>.
- Rahmah, Amalia. 2015. "Digital Literacy Learning System for Indonesian Citizen." *Procedia Computer Science* 72 (2015): 94–101. <https://doi.org/10.1016/j.procs.2015.12.109>.
- Rahmat, Nurhazlini, Lau Sing Min, Nur Atiqah Md. Sungif, and Farah Nabillah Mior Yusup. 2015. "English Language Proficiency Tests and Academic Achievement: A Study on the Malaysian University English Test as a Predictor of Technical Programme Undergraduates Academic Achievement." *Advances in Language and Literary Studies* 6 (1): 114–119. <https://doi.org/10.7575/aiac.all.v.6n.1p.114>.
- Renandya, Willy A., Fuad A. Hamied, and Joko Nurkamto. 2018. "English Language Proficiency in Indonesia: Issues and Prospects." *Journal of Asia TEFL* 15 (3): 618–629. <https://doi.org/10.18823/asiatefl.2018.15.3.4.618>.
- Rerung, Magdalena Kartika Sari Tandy, and Junita Hartono. 2020. "Digital-Based Language Testing Implementation Designed for EFL Learners." *Acitya: Journal of Teaching and Education* 2 (2): 129–140. <https://doi.org/10.30650/ajte.v2i2.1385>.
- Reynolds, Rebecca. 2016. "Defining, Designing for, and Measuring 'Social Constructivist Digital Literacy' Development in Learners: A Proposed Framework." *Educational Technology Research and Development* 64: 735–762. <https://doi.org/10.1007/s11423-015-9423-4>.
- Richards, Heather, Clare Conway, Annelies Roskvist, and Sharon Harvey. 2013. "Foreign Language Teachers' Language Proficiency and Their Language Teaching Practice." *Language Learning Journal* 41 (2): 231–246. <https://doi.org/10.1080/09571736.2012.707676>.
- Shariman, Tenku Putri Norishah Tenku, Norizan Abdul Razak, and Nor Fariza Mohd Noor. 2012. "Digital Literacy Competence for Academic Needs: An Analysis of Malaysian Students in Three Universities." *Procedia—Social and Behavioral Sciences* 69 (2012): 1489–1496. <https://doi.org/10.1016/j.sbspro.2012.12.090>.
- Sulistyo, Gunadi Harry, and Suharyadi Suharyadi. 2018. "The Profile of EFL Learners as Measured by an English Proficiency Test." *JEELS: Journal of English Education and Linguistics Studies* 5 (1): 115–145. <https://doi.org/10.30762/jeels.v5i1.570>.
- Summak, M. S., M. Samancıoğlu, and M. Bağlibel. 2010. "Technology Integration and Assessment in Educational Settings." *Procedia—Social and Behavioral Sciences* 2 (2): 1725–1729. <https://doi.org/10.1016/j.sbspro.2010.03.973>.
- Tan, K. E., Melissa Ng, and K. Saw. 2010. "Online Activities and Writing Practices of Urban Malaysian Adolescents." *System* 38 (4): 548–559. <https://doi.org/10.1016/j.system.2010.09.014>.
- Wardlow, George. 1989 "International Students of Agriculture in U.S. Institutions Precursors to Academic Success." *Journal of Agricultural Education* 30 (1): 17–22. <https://doi.org/10.5032/JAE.1989.01017>.
- Westhuizen, Duan Van Der. 2016. *Guidelines for Online Assessment for Educators*. Burnaby, BC: Commonwealth of Learning.
- Wulyani, Anik Nunuk, Irina Elgort, and Averil Coxhead. 2019. "Exploring EFL Teachers' English Language Proficiency: Lessons from Indonesia." *Indonesian Journal of Applied Linguistics* 9 (2): 263–274. <https://doi.org/10.17509/ijal.v9i2.20217>; <http://ejournal.upi.edu/index.php/IJAL/article/view/20217>.

- Yacoba, Azliza, Aini Zuriyati Abdul Kadir, O. Zainudin, and A. Zurairah. 2012. "Student Awareness towards E-Learning in Education." *Procedia—Social and Behavioral Sciences* 67:93–101. <https://doi.org/10.1016/j.sbspro.2012.11.310>.
- Yulia, Astri, Nor Azilah Husin, and Faiz Anuar. 2019. "Channeling Assessments in English Language Learning via Interactive Online Platforms." *Studies in English Language and Education* 6 (2): 228–238. <https://doi.org/10.24815/siele.v6i2.14103>.
- Yulianto, Dedy, and Nito Majid Mujtahid. 2021. "Online Assessment during Covid-19 Pandemic: EFL Teachers' Perspectives and Their Practices." *Journal of English Teaching* 7 (2): 229–242. <http://ejournal.uki.ac.id/index.php/jet/article/view/2770/1912>.
- Yuyun, Ignasia, Meyling Meyling, Naftalia Laksana, and Demus Abednego. 2018. "A Study of English Proficiency Test among the First Year University Students." *Journal of Language and Literature* 18 (1): 1–8. <https://doi.org/10.24071/joll.2018.180101>.

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