

**The Correlation Between Digital Literacy Competence and English
Achievement of Students of SMAN 19 Palembang**

Alde Ambara Sakti

06011381520065

English Education Study Program



Language and Arts Education Department

FACULTY OF TEACHER TRAINING AND EDUCATION

SRIWIJAYA UNIVERSITY

PALEMBANG

2018

**The Correlation Between Digital Literacy Competence and English
Achievement of Students of SMAN 19 Palembang**

A Thesis by

Alde Ambara Sakti

06011381520065

English Education Study Program

Language and Arts Education Department

**FACULTY OF TEACHER TRAINING AND EDUCATION
SRIWIJAYA UNIVERSITY**

2020

Approved by,

Advisor 1,

Advisor 2,



Erlina.. S.Pd.. M.Pd.. M.Ed.
NIP. 197409082000122001



Eftinova. S.S.. M.Pd
NIP.197911152006042028

Certified by,

**Coordinator of English Education
Study Program,**



Hariswan Putera Java. S.Pd.. M.Pd
NIP 197408022002121003

**The Correlation Between Digital Literacy Competence and English
Achievement of Students of SMAN 19 Palembang**

**A Thesis by
Alde Ambara Sakti
06011381520065**

**This thesis was defended by the writer in final program examination and was
approved by the examination committee on:**

**Day : Friday
Date : September 25th 2020**

Advisor 1,

Advisor 2,



**Erlina.. S.Pd., M.Pd., M.Ed.
NIP. 197409082000122001**



**Fiftinova. S.S., M.Pd
NIP.197911152006042028**

Palembang, September 29th 2020

**Certified by,
Coordinator of English Education Study Program**



**Hariswan Putera Java. S.Pd., M.Pd
NIP 197408022002121003**

DECLARATION

I, the undersigned,

Name : Alde Ambara Sakti

Student's Number : 06011381520065

Study Program : English Education

Certify that thesis entitled "The Correlation Between Digital Literacy Competence and English Achievement of Students of SMAN 19 Palembang" is my own work and I did not do any plagiarism or inappropriate quotation against the ethic and rules commended by the Ministry of Education of Republic Indonesia Number 17, 2010 regarding plagiarism in higher education. Therefore, I deserve to face the court if I am found to have plagiarized this work.

Palembang, December 2020

The undersigned,

Alde Ambara Sakti



NIM 06011381520065

ACKNOWLEDGMENTS

This thesis was written to fulfill one of the requirements to accomplish Undergraduate Degree (S1) at English Education Study Program, Language and Arts Education Department, Faculty of Teacher Training and Education, Sriwijaya University.

The writer would like to express his great-sincere gratitude to God, the almighty for the blessing and mercies so that this thesis could be finished.

The deepest gratitude and great appreciation are expressed to the writer's advisors, ibu Erlina, S.Pd., M.Pd., M.Ed. and ibu Fiftinova, S.S., M.Pd., who have given their valuable advice, guidance, patience and time in the process of writing this thesis.

This thesis also would not be finished perfectly without the help and support from many people. Therefore, the writer would like to owe the enormous debt of gratitude to; first, my parents for their endless love and support, especially to my mother and father. Thank you for every sacrifice that you have done to me. Second, thankfulness also goes to all my friends in English education study program who cannot be mentioned here one by one, especially to Andika and Caisar for being a there when I hit rough patches, helped me whenever I need them, helped guiding me in this thesis and being a brother. Also Nanda, Kennan, Nizar, Kevin, Kaizha, Tiara, and Desti thank you for your help, support and advice. Last, but not least, for all of my friends from BESTO FURENDO, big thanks for all members and thanks for their support and understanding.

Palembang, October 1st 2020

The Writer

ALDE AMBARA SAKTI

06011381520065

TABLE OF CONTENTS

TITLE PAGE	
CERTIFICATION PAGES	
DECLARATION	
<u>ACKNOWLEDGEMENTS</u>	i
<u>TABLE OF CONTENTS</u>	ii
<u>LIST OF TABLES</u>	iv
<u>LIST OF APPENDICES</u>	vi
<u>ABSTRACT</u>	vii
CHAPTER I INTRODUCTION	
<u>1.1 Background</u>	1
<u>1.2 Problems of the Study</u>	8
<u>1.3 Objectives of the Study</u>	8
<u>1.4 Significance of the Study</u>	8
CHAPTER II LITERATURE REVIEW	
<u>2.1 Digital Literacy</u>	9
<u>2.2 Digital Literacy Competence</u>	10
<u>2.3 English Achievement</u>	10
<u>2.4 Previous Related Study</u>	11
CHAPTER III METHODOLOGY	
<u>3.1 Research Design</u>	14
<u>3.2 Variabels of the Study</u>	14
<u>3.3 Operational Definitions</u>	14
<u>3.4 Population and Sample</u>	15
<u>3.5 Data Collection Technique</u>	16
<u>3.6 Validity and Reliability</u>	17
<u>3.7 Data Analysis Technique</u>	18

CHAPTER IV FINDINGS AND INTERPRETATIONS

<u>4.1 Findings of the Study</u>	20
4.1.1 <u>Results of DLQ-LL Questionnaire</u>	22
4.1.2 <u>The Results of Students English Achievement</u>	21
<u>4.2 Statistical Analysis</u>	22
4.2.1 Normality Test	22
4.2.2 Correlation Between Digital Literacy Competence and Students' English Achievement	23
4.2.3 The Correlation between Three Aspects of DLQ-LL Questionnaire and Students' English Achievement	24
<u>4.3 Interpretation</u>	25

CHAPTER V CONCLUSIONS AND SUGGESTIONS

<u>5.1 Conclusions</u>	27
<u>5.2 Suggestions</u>	27
REFERENCES.....	29

LIST OF TABLES

Table 1. Population of the study.....	15
Table 2. Specification of DLQ-LL Questionnaire.....	16
Table 3. Digital Literacy Questionnaire Interval.....	18
Table 4. Students' Test Scores Interval.....	18
Table 5. The Degree of Correlation Coefficient.....	19
Table 6. The Result of DLQ-LL Questionnaire	20
Table 7.Descriptive Statistic of The Result of DLQ-LL Questionnaire.....	21
Table 8.Descriptive Statistic of The Result of Students' English Test	22
Table 9. Tests of Normality.....	23
Table 10. Correlation Between Digital Literacy Competence and Students' English Achievement	23
Table 11. The Correlation between Three Aspects of DLQ-LL Questionnaire and Students' English Achievement	24

LIST OF APPENDICES

- APPENDIX A : Usul Judul Skripsi
- APPENDIX B : Surat Keputusan Dekan Tentang Judul dan Pembimbing Skripsi
- APPENDIX C : Approval for Research Design Seminar
- APPENDIX D : Research Design Seminar Completion Letter
- APPENDIX E : Research Design Seminar Suggestion List
- APPENDIX F : Approval for Preliminary Research Report Seminar
- APPENDIX G : Preliminary Research Report Completion Letter
- APPENDIX H : Approval for Final Examination Seminar
- APPENDIX I : Surat Penelitian
-
- APPENDIX J : Thesis Consultation Card
- APPENDIX K : Digital Literacy Questionnaire
- APPENDIX L : Students Final Examination Score
- APPENDIX M : Normality Test of the Questionnaire
- APPENDIX N : Reliability and Validity of Questionnaire
- APPENDIX O : The Result of DLQ-LL Questionnaire
- APPENDIX P : The Correlation Between Digital Literacy Competence
and
English Achievement
- APPENDIX Q : The Correlation Between Three Aspects of Digital
Literacy Competence and English Achievement

The Correlation Between Digital Literacy Competence and English Achievement of Students of SMAN 19 Palembang

ABSTRACT

This aims of the study were to find out whether or not there was a significant correlation between Digital Literacy Competence and English Achievement of the students of SMAN 19 Palembang. There were 100 students which chosen randomly. Seventy Nine questions of Digital Literacy test were administered to the samples. The result of Pearson Product Moment Correlation Coefficient showed that (1) there was no significant correlation between Digital Literacy Competence and English Achievement (p -value > 0.05 , p -value=0.738, $N=100$), (2) Among four aspects of Digital Literacy Competence, none of these aspects significantly correlated with English Achievement.


Keyword: *correlation, Digital Literacy Competence, and English Achievement*

A Thesis by an English Education Study Program Student, Faculty of Teacher Training and Education, Sriwijaya University

Name : Alde Ambara Sakti
NIM : 06011381520065

Approved by,

Advisor 1,



Erlina., S.Pd., M.Pd., M.Ed.
NIP. 197409082000122001

Advisor 2,



Fiftinova, S.S., M.Pd
NIP 197911152006042028

Certified by,
Coordinator of English Education Study Program,

Hariswan Putera Jaya, S.Pd., M.Pd
NIP 197408022002121003

CHAPTER I

INTRODUCTION

1.1 Background

In this period of technology and communication development, the integrity of searching information for English learning via international structural connection is evident. In order to conduct with the up-and-coming of the technologies, students need to be motivated and ready to acquire a lasting knowledge and ability in the learning environment. The concept of Digital Literacy and Digital Competence have been used often and increasingly debated over the last few decades, to be precise, in policy documents and policy-related debate related to what sorts of ability and knowledge people must require and how to acquire it (Ilomäki, Paavola and Lakkala, 2016). While most people possibly saw technologies as an entertainment and communication, lecturers realizes that technologies have the potential to be the next-generation of digital literacy and digital competence. In educational settings, there are two distinct ways for the learners to have access to the technology: learning from and learning with technology (Reeves, 1998).

Learning from and learning with technology do not always mean technology take over education in its entirety. In *The Computer in the School: Tutor, Tool, Tutee*, Taylor (1998) proposed three orientations that exemplified differing theoretical perspectives toward the ways that instructional technologies might best be used with students.

In the tutor mode, rooted in medieval Judaic and Christian traditions that teaching is telling (Cohen, 1990) and behaviorist conceptualizations of programmed instruction and operant conditioning (Skinner, 1988), the role of instructional technology was conceptualized as a teaching machine. From this perspective, computers allowed the use of dynamic graphics and integrated instructional supports that prompted learners to more actively engage and interact as they learned, and be guided through the carefully structured instructional

interaction presented through the machine. Performance data on learning (collected while students completed activities) was used to assess learning and provide data that could be used to determine an appropriately challenging sequence for presentation of content and activities. In this view knowledge is transferred from the teaching machine to the student and students learn skills through feedback-guided practice.

In tool mode, Taylor (1998) saw instructional technologies as devices that could be used to support teachers and students by transferring tasks of a tedious or mechanical kind to the computer (e.g., using a calculator to solve arithmetic problems, using a database to organize information, using word processors in writing workshops, etc.). In this view the technology supports the learner by accomplishing some of the more mundane tasks when he or she engages in educational activity.

In the tutee mode, students tutor (program) the computer. In so doing, proponents claim the child learns more deeply, and learns more about the process of learning, than he or she would through being tutored by software developed by Lepper (1997). Benefits include: (1) learners establish deep and connected understanding because the student has to understand the content such that he or she can create a representation of that content (e.g., teach it to the computer), and (2) teaching (programming) the computer to do something using the narrow capabilities of computer logic will help the learner develop computational thinking, while promoting a richer understanding of his or her own conceptual models and thought processes. While Taylor (1998) proposed computer programming as the media for the tutee mode, Jonassen (1999) broadened this conception to include a variety of technology-based modeling applications.

Leu, Zawlinski, Castek, Banerjee, Housand, Liu and O'Neil (2007) once conclude that: Most new literacies, including digital literacy, shares four hypotheses: (1), new educations combine new abilities, design, disposition and social process that are mandatory by new technologies for information and communication; (2) new educations are basic to full cooperation in a international

society; (3) new educations repeatedly change as their designated technologies change; and (4) new educations are multifaced and our comprehension of them help from numerous points of view.

Two decades ago, Gilster (1997) describes digital literacy as the “capability to comprehend and apply information in various formats from a wide spectrum of sources when it is presented through computers”. At this time, the Internet was in its infant stages. More than a decade later with Internet usage in full swing, Fieldhouse and Nicholas (2008) asserted that terms like literacy and fluency can be used to describe how users find and evaluate information within digital environments. Digital literacy involves any number of digital reading and writing techniques across multiple media forms, including: words, texts, visual displays, motion graphics, audio, video, and multimodal forms. In the same way that literate people can mediate print text through the processes of reading and writing, literate users of technology are able to consume and produce digital compositions. There are many cognitive processes at work, along a continuum from consumption to production when a reader is immersed with digital content. The digital context is challenging for all readers due to the fluid nature of the Web and the demand for critical judgments (Spires & Estes, 2002) as the reader makes decisions about how to locate information as well how to discern the reliability and credibility of that same information.

According to International Literacy Association (ILA) 2018 report, digital literacy tops the list as the most prescient topic to be addressed in literacy education. The report surveyed and interviewed researchers and literacy educators from around the world. The report also noted that there should be more attention given to strategic efforts for excellent literacy education. One of those efforts involves teacher preparation that equips student teachers with skills to foster students’ literacy development. Specifically one that is concerned with digital technology.

Indonesian students’ literacy skills are unfortunately not well developed. EF EPI (2019) reported that Indonesia ranked 61 out of a 100 on Proficiency

Trend with the highest score held by Yogyakarta and Jakarta with 54.46 and 52.58 respectively. Also, USAID (2008) reported that many Indonesian K-12 students displayed low critical thinking ability—they lacked the ability to reflect and evaluate information presented to them. This ability is paramount for students to be academically and professionally advanced (Spires & Bartlett, 2012). Spires and Bartlett contend that in an increasingly digital environment, students must acquire digital literacy skills that enable them to select and use digital tools that are suitable for their purposes. Echoing ILA, Spires and Bartlett view digital literacy as “a wide-ranging set of practices that enable students to create, share, and understand meaning and knowledge” in a digital environment (2012). In Indonesia, 132.7 million internet users use the internet daily, but many of them fail to be critical in scanning the contents spread around the web. In April 2017, researchers formed a new network called Indonesian Digital Literacy Advocates Network (Japelidi). According to Japelidi, Digital literacy mostly found and organized by university by reaching 56.14% with 29.64% lecture rating. Teens and students are most vulnerable to hoaxes and a largest group of potential digital literacy agents with participation rating of 29.55%. Sadly, only 3.68% found in school activities and only 1.51% found in curriculum.

After a recent research conducted by Statista Research Department Indonesia, around 15% of Indonesian youth of age 13-17 uses internet daily while the highest users of internet group of age is between 18-24 and It was found that smartphone users in Indonesia spent an average of 69 minutes every day on mobile apps, ranking the third highest average time on the internet in Asia Pacific.

Many students have access to a personal device of some sort. It could be in the form of a phone, tablet, or computer. So, whether or not the school gives out devices, students are still accessing information from around the world through myriad sources. The challenge is to help educate teachers and parents about digital literacy so they can help students navigate the digital world. Consider hosting afterschool seminars for parents and students to come together in order to learn about how to appropriately use their devices. Utilize professional development to

educate teachers about digital literacy and how to relay the information to their students.

Digital Literacy is the appreciation, belief and capability of individuals to appropriately use device tools and aptitude to describe, access, administer, accommodate, evaluate, analyze and harmonize digital asset, construct new knowledge, create media interpretations, and correspond with others, in the context of certain life situations, in order to empower practical social activity; and to follow upon this process.

Bawden (2008) notes that Digital literacy recommends and adds numerous things that it does not assert to own. It incorporates the delivery of information, without classifying creative writing and visualization. It comprises the assessment of information, without declaring systematic examining and meta-analysis as its own. It incorporates organization of information but lays no claim to the development and operation of terms, classifications and thesauri.

Ba, Tally and Tsikalas (2002) offer a broad definition of digital literacy. They describe digital literacy as a “set of habits through which youngsters use information technologies for learning, work, and fun”. This definition is general, but sheds light on a key paradox in contemporary education; that is, the skills demanded for an increasingly technological and changing work-place are not being learned in school, but rather outside the sphere of the school environment (Beavis, Apperley, Bradford, O'Mara, & Walsh, 2009). As the Internet has become this generation's defining technology for literacy and learning, classrooms have yet to take up Internet integration into the classroom or begin instruction in the new literacy skills the Internet requires (Leu, Zawilinski, Castek, Banerjee, Housand, Liu and O'Neil, 2007).

Literacy practices mediated by digital technology involve interaction with resources in many different modes of representation which require multiple literacy skills. Users are engaged in “interpreting varied context of meaning and have to depend on different competences this means meaningful information is

not presented in a single way, but instead presented in multimodal ways. The semiotic resources, also known as multimodal forms, represent meanings in a range of modes inherent in digital technologies, such as image, colour, speech and sound-effect, and movement (Jewitt and Kress, 2010). Shariman, Razak & Noor (2012).supported this theory because he said these semiotic resources or multimodal forms of language that often comprise visual display, sound and music, cinematic movement and abstract animation, usually intersect to create meanings. Digital technologies with multimodal resources offer youths new potentials and multiple paths into content. As Jewitt (2008) points out mode offers different potential for representation and communication of meanings. As such, digital literacy refers to meaning-making that occur when students interact with, read, analyze, understand, and respond to multimodal forms of digital content. Walsh through her extensive research in the field of literacy (2010) reaffirmed this view of literacy in the current digital era as a set of abilities requiring individuals to recognize when information is needed, and to locate, evaluate and use effectively the information when they are engaging with multimodal forms of texts.

Education is a process of inviting truth and possibility, of encouraging and giving time to discovery. To put it simply,. a social process is “a process of living and not a preparation for future living.”. In this view educators look to act with people rather on them. Their task is to educe (related to the Greek notion of educere), to bring out or develop potential. Such education is 1) Deliberate and hopeful. It is learning educators set out to make happen in the belief that people can ‘be more’; 2) informed, respectful and wise. A process of inviting truth and possibility.3) grounded in a desire that at all may flourish and share in life. It is a cooperative and inclusive activity that looks to help people to live their lives as well as they can.

Indonesia has a unified national education system that consists of three main stages: nine years of basic education (six years of elementary school and three years of lower secondary school, i.e., junior high), secondary education

(i.e., senior high), and tertiary education (university level). Tertiary education consists of three levels: a four year sarjana (equal to a bachelor's level), magister (master level), and doctor (doctorate level). In addition, children may attend preschool, which is, for the most part, run by private educational institutions.

When a foreign language to be chosen for the school curriculum nationwide (either Dutch or English) in 1950, policy makers in Indonesia were well aware that English could serve a very important role as a tool in the development of the country, both for international relations and scientific-technological advancement. English was chosen over Dutch despite the fact that the Dutch had colonized Indonesia for three and a half centuries. As is very well recorded in our history, the official status of English in the country has been "the first foreign language" and the political stance of Indonesia's government is quite firm: "English is not and will never be a social language nor the second official language in Indonesia" (Sadtono, 1997).

With English being given this status, the objective of English language teaching (ELT) in Indonesia is to equip students with a working knowledge of the language. While this instructional objective may appear self-explanatory, in the context of formal schooling, the notion of "working knowledge in English" has been approached in different ways throughout the history of ELT in Indonesia. For instance, English Syllabus while the final goal of teaching was said to be the development of communicative competence in English, the actual English teaching focused almost exclusively on the mastery of linguistic patterns without giving proper attention to their use in communicative situations.

The writer was interested to find out whether there is any correlation between Digital Literacy Competence and students' English Achievement in SMAN 19 Palembang because the average National Examination score is extremely low but the usage of digital tools is significantly high in this school.

The purpose of this paper is to illustrate the need for researchers and educators to agree upon a digital literacy theoretical framework and its accompanying competencies. This will permit educators to design curriculum that is effective at teaching digital literacy skills.

1.2 Problem of the Study

The problem of this study are formulated as:

Is there any significant correlation between Digital Literacy Competences and English Achievement of the students of SMAN 19?

1.3 Objective of the Study

Based on the problem of the study above, the objective of the study is:

To find out whether or not there is any significant correlation between Digital Literacy Competences and English Achievement of SMAN 19 Palembang

1.4 Significance of the Study

The significances of this study are as follows:

1. To the English teachers, the result of this study is hoped to give valid information to the teachers of SMAN 19 Palembang concerning with their students' digital literacy and English study.
2. To the students, it is hoped that the students' will achieve a higher score in English studies.
3. To the other researchers, this study can be one of the references for further studies

REFERERNCES

- Ahmed, S., & Rasheed, T. (2020). Relationship between personality traits and digital literacy skills: a study of university librarians. *Digital Library Perspectives*.
- Arikunto, S. (1998). *Metodologi Penelitian Suatu Pendekatan Praktek*. Jakarta: Rineka Cipta.
- Arikunto, S. (2000). *Manajemen Pendidikan*. Jakarta, Indonesia: Rineka Cipta.
- Arikunto, S. (2002). *Produser penelitian suatu pendekatan praktek*. Jakarta: PT. Rineka Cipta.
- Argentin, G., Gui, M., Pagani, L., & Stanca, L. (2014). The impact of digital literacy on educational outcomes: Evidence from performance tests. *University of Milan, Bicocca*, (August).
- Attuquayefio, S. N., & Addo, H. (2016). Gender and age comparison of information communication and technology usage among Ghanaian higher education students. *American Journal of Information Systems*, 4(1), 1-6.
- Ba, H., Tally, W., & Tsikalas, K. (2002). Investigating children's emerging digital literacies. *The Journal of Technology, Learning and Assessment*, 1(4).
- Bawden, D. (2008). Origins and concepts of digital literacy. *Digital literacies: Concepts, policies and practices*, 30(2008), 17-32.
- Beavis, C., Apperley, T., Bradford, C., O'mara, J., & Walsh, C. (2009). Literacy in the digital age: Learning from computer games. *English in Education*, 43(2), 162-175.
- Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers*. New York, NY: Newbury House.
- Creswell, J.W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ :Pearson Education.
- Creswell, J.W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education.
- EF EPI. (2019). *Indeks Kecakapan Bahasa Inggris EF*. Retrieved from : <https://www.ef.co.id/epi/>
- Eryansyah, E., Erlina, E., Fiftinova, F., & Nurweni, A. (2019). EFL Students' Needs of Digital Literacy to Meet the Demands of 21stCentury Skills. *IRJE (Indonesian Research Journal in Education)*, 442-460.
- Fieldhouse, M., & Nicholas, D. (2008). *Digital literacy as information savvy*. Peter Lang Publishing Group.

- Glister, P. (1997). *Digital literacy*. New York, NY: Wiley Computer Pub.
- Hamutoğlu, N. B., Savaşçı, M., & Sezen-Gültekin, G. (2019). Digital Literacy Skills and Attitudes towards E-learning. *Journal of Education and Future*, (16), 93-107.
- Ilomäki, L., Paavola, S., Lakkala, M., & Kantosalo, A. (2016). Digital competence—an emergent boundary concept for policy and educational research. *Education and Information Technologies*, 21(3), 655-679.
- International Literacy Association (ILA). (2018). *Literacy Coaching for Change: Choices Matters*. Newark, DE: Author.
- Jan, S. (2018). Investigating the Relationship between Students' Digital Literacy and Their Attitude towards Using ICT. *International Journal of Educational Technology*, 5(2), 26-34.
- Jewitt, C. (2008). *The visual in learning and creativity: A review of the literature*. London: Arts Council.
- Jewitt, C., & Kress, G. (2010). Multimodality, literacy and school English. *The Routledge international handbook of English, language and literacy teaching*, 342-353.
- Jonassen, D. H. (1999). Computers in the classroom: Mindtools for critical thinking.
- Lepper, M. R. (1997). Microcomputers in education: Motivational and social issues. *American psychologist*, 40(1), 1.
- Leu, D. J., Zawilinski, L., Castek, J., Banerjee, M., Housand, B., & Liu, Y. O'Neil. M.(2007). What is new about the new literacies of online reading comprehension. *Secondary school literacy: What research reveals for classroom practices*, 37-68.
- Lou, S. J., Shih, R. C., Liu, H. T., Guo, Y. C., & Tseng, K. H. (2010). The Influences of the Sixth Graders' Parents' Internet Literacy and Parenting Style on Internet Parenting. *Turkish Online Journal of Educational Technology-TOJET*, 9(4), 173-184.
- Martin, J. R. (2003). *Writing science: Literacy and discursive power*. Routledge.
- Martin, A., & Grudziecki, J. (2006). DigEuLit: Concepts and tools for digital literacy development. *Innovation in Teaching and Learning in Information and Computer Sciences*, 5(4), 249-267.
- Pertiwi, D. L., Sudarsono, S., & Arifin, Z. Internal Factors Of English Learning Achievement (Doctoral dissertation, Tanjungpura University).
- Reeves, T. C. (1998). *The Impact of media and technology in schools: a research report prepared for The Bertelsmann Foundation*. The Bertelsmann

- Foundation, 1-44. Retrieved from <http://it.coe.uga.edu/~treeves/edit6900/BertelsmannReeves98.pdf>
- Sadtono, E. (1997). The development of TEFL in Indonesia. The English Department of IKIP Malang, Malang.
- Sauro, S. (2017). Call for papers. *Language Learning & Technology*, 21(1), 186. <https://doi.org/10125/44603>
- Shariman, T. P. N. T., Razak, N. A., & Noor, N. F. M. (2012). Digital literacy competence for academic needs: An analysis of Malaysian students in three universities. *Procedia-Social and Behavioral Sciences*, 69(1), 1489-1496.
- Skinner, B. F. (1988). The shaping of a behaviorist: Part two of an autobiography.
- Son, J. B. (2015). Digital literacy of language learners in two different contexts. *JALT CALL Journal*, 13(2), 77-96.
- Spante, M (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1), 1519143
- Spires, H. A., & Estes, T. H. (2002). Reading in web-based learning environments. *Comprehension instruction: Research-based best practices*, 115-125.
- Spires, H. A., & Bartlett, M. E. (2012). Digital literacies and learning: Designing a path forward. Friday Institute White Paper Series, 5.
- Sugiono. (2012). *Statistika untuk penelitian*. Bandung, Indonesia : CV. Alfabeta
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.
- Taylor, R. (Ed.). (1998). The computer in the school: Tutor, tool, tutee (pp. 1-10). New York, NY: Teachers College Press.
- UNESCO (2018). *International policies for Third World education: UNESCO, literacy and development*. Routledge. Retrieved from <https://en.unesco.org/>
- USAID, F. (2008). *Indicators for assessing infant and young child feeding practices*. Geneva: World Health Organization.
- Von Stumm, S., Hell, B., & Chamorro-Premuzic, T. (2011). The hungry mind: Intellectual curiosity is the third pillar of academic performance. *Perspectives on Psychological Science*, 6(6), 574-588.
- Walsh, M. (2010). Multimodal literacy: What does it mean for classroom practice?. *Australian Journal of Language and Literacy, The*, 33(3), 211.

- Yang, M. S., & Kim, J. K. (2014). Correlation between digital literacy and self-regulated learning skills of learners in university e-learning environment. *Adv. Sci. Technol. Lett*, 71, 80-83.
- Yates, D. S., Starnes, D. S., & Moore, D. S. (2008). Research design: Qualitative, quantitative, and mixed method approaches. *The Practice of Statistics*. (3rd ed.). New York, NY: W. H. Freeman and Company