www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

The Stakeholders' Perception with Regard to the Implementation of XRecorder Application in Teaching English during *Covid-19* Pandemic in One of Islamic School in Boyolali

Duwi Handayani[1], Hepy Adityarini[2], Yeny Prastiwi[3]
[1,2,3]*Universitas Muhammadiyah Surakarta, Indonesia*
s400190009@student.ums.ac.id, ha281@ums.ac.id, yp252@ums.ac.id

Abstract

The outbreak of Covid-19 around the globe has affected all sectors, education is no exception. Those who works in education sector have to find a solution to contnuously providing education services while securing the health of the people involved. Thus optimalizing the use of technology for delivering materials for students who are studying from home is one of the solutions. In a similar vein, the implementation of technology is also highlighted in TPACK theory and Curriculum 2013. This study is aimed to describe the stakeholders' perception with regard to the implementation of Xrecorder in teaching English in one of Islamic school in Boyolali. It adopted descriptive qualitative approach in which the teacher and the students were asked to provide their points of views on the implementation of application of Xrecorder in English lesson. The results showed that the stakeholder agree that the Xrecorder application bring benefits for students particularly for its user friendliness and low internet quota.

Keywords
TPACK; XRecorder application; teaching english; stakeholder; covid 19 pandemic

I. Introduction

Learning activity during Covid-19 pandemic have to still carry out. Here the function of science in technology to solve the problem. For elementary, secondary, or university, they can use some of application to study during social distancing program from government. For example, zoom application for knowing our students present their assignment, Whatsapp application, Google form, schoology, and other. As a teacher, if we want to apply some technique and technology in our teaching activity, we have to understand about the condition of our students. Some of major problem was about the connection, and economical issue of our students' family that we have to know, so we can use some applications for teaching English during this pandemic at home.

Shulman (1986) proposed that effective teaching requires a special sort of knowledge, pedagogical content knowledge (or PCK), that represents "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the various interests and skills of learners, and presented for instruction". The central idea of PCK is that learning to teach a particular subject matter requires not only understanding the content itself but also developing appropriate instructional strategies and skills that are appropriate for learners. Mishra and Koehler's (2006) said that the formulation of technological, pedagogical, and content knowledge (TPACK) framework extended Shulman's (1986) characterization of teacher knowledge to explicitly consider the role of knowledge about technology can play in effective teaching. From definition above, we can conclude that this theory was suitable for

teaching English or any subject during Covid-19 pandemic, to create some interesting learning.

In SMP Islam Ngemplak, there are some problem faced by teacher in teaching English during this pandemic such us economical issue. For example, students did not have android to support learning. As a teacher, we have to apply some technology that lost cost, so they can download the material of lesson and that need less connection. Such us XRecorder. In this application teacher can explain clearly about the material, and there is a pen tool, so teacher can be giving the material of English subject with more explanation.

The outbreak of this virus has an impact of a nation and Globally (Ningrum *et al*, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020). In the previous study from Salmah (2016) about technology in English, he used computer and Microsoft in teaching learning activity Arief Eko Priyo Atmojo (2020), about EFL online teaching activities and challenges during COVID-19 Pandemic in Indonesia. His result about teaching EFL during covid-19 used web learning. Therefore, the web learning doesn't run well since it lacks of preparation and planning. Implications for better online learning are discussed. Future prospective researches are directed and encouraged. Settha Kuama (2016) Is Online Learning Suitable for All English Language Students. The results revealed that OLLS (online language learning strategies) were employed by SLs more significantly when compared to what Uls (successful online language students) did. From some of previous study and the problem faced by teacher and students above, the researcher just focus on application that support of students 'capability from economical issue that need less cost during English learning in this pandemic.

The reason of the researcher take this object for the research, because of SMP Islam is the private school in Ngemplak having the competence teachers to create some interesting learning by using some of applications. In this research the researcher focus on the application of Xrecorder in teaching English during Covid-19 pandemic in SMP Islam Ngemplak Academic year 2019/2020 to support the digital era of technology.

II. Review of Literature

2.1 Definition of TPACK

Shulman (1986) proposed that effective teaching requires a special sort of knowledge, pedagogical content knowledge (or PCK), that represents "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the various interests and skills of learners, and presented for instruction". The central idea of PCK is that learning to show a specific material requires not only understanding the content itself but also developing appropriate instructional strategies and skills that are appropriate for learners.

Mishra and Koehler's (2006) explained that the formulation of technological, pedagogical, and content knowledge (TPACK) framework extended Shulman's (1986) characterization of teacher knowledge to explicitly consider the role of that knowledge about technology can play in teaching effectively. Specifically, three major knowledge components form of the TPACK framework as follows:

a. Content knowledge (CK) refers to any subject-matter knowledge that a teacher is responsible for teaching.
b. Pedagogical knowledge (PK) refers to teacher knowledge about a variety of instructional practices, strategies, and methods to promote students' learning.

c. Technology knowledge (TK) refers to teacher knowledge about traditional and new technologies that can be integrated into curriculum.

Four components within the TPACK framework, address how these three bodies of data interact, constrain, and afford consistent with Shulman's theory follows:

1. Technological Content Knowledge (TCK) refers to knowledge of the reciprocal relationship between technology and content. Disciplinary knowledge is usually defined and constrained by technologies and their representational and functional capabilities.
2. Pedagogical Content Knowledge (PCK) is to Shulman's (1986) notion of "an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the various interests and skills of learners, and presented for instruction" (p. 8).
3. Technological Pedagogical Knowledge (TCK) refers to an understanding of technology can constrain and afford speci fi c pedagogical practices.
4. Technological Pedagogical Content Knowledge (TPACK) refers to knowledge about the complex relations among technology, pedagogy, and content that enable teachers to develop appropriate and context-speci fi c teaching strategies.

2.2 ICT-Related PCK

ICT - Related PCK is an instructional systems design model based on Shulman's (1986), Cochran, Deruiter, and King's (1993) conceptualization of PCK defined as an integrated understanding of four components include pedagogy, subject matter content, student characteristics, and the environmental context for learning. Angeli and Valanides (2005), explained that ICT-Related PCK comprises the body of knowledge educators must possess to teach with ICT, and consists of a combination of fi ve components of teachers' knowledge: pedagogical, subject area, students, environmental context, and ICT. ICT-Related PCK is de fi ned as knowing how to: (a) Identify topics to be taught with ICT; (b) Identify representations for transforming content;(c) Identify teaching strategies were difficult with traditional technology; (d) Select ICT tools to support content and teaching strategies; and (e) Infuse ICT activities in classrooms. ICT-Related PCK differs from TPACK therein it conceptualizes the mixing of technology into teaching as happening within the realm of PCK, and requiring additional sorts of knowledge within PC.

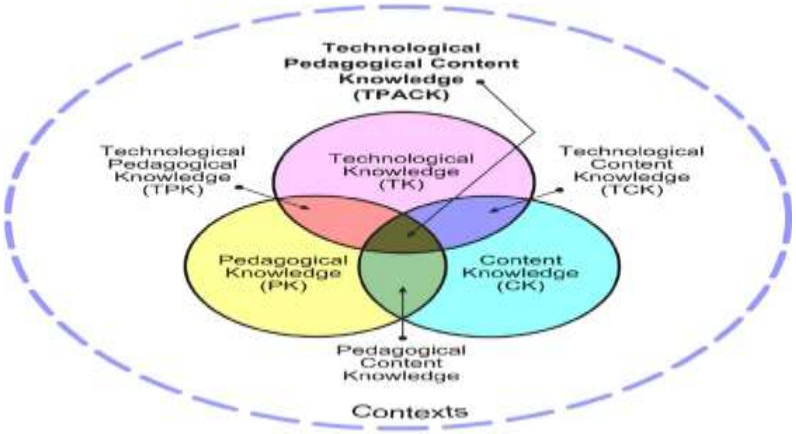

Figure 1. *Koehler's TPACK framework*

Figure 1. Koehler's TPACK framework © 2012 by http://tpack.org considers technology knowledge as its own body of knowledge, it should interact with other bodies of knowledge (CK, PK, and PCK) to form new types of knowledge (TCK, TPK, and TPCK).

2.3 TPACK for Educational Technology

Knowledge of Educational Technology by Margerum-Lays & Marx (2003) views teachers' understanding of educational technology through the lens of Shulman's (1986) conceptualization of teacher knowledge—content knowledge, pedagogical knowledge, and pedagogical content knowledge. Knowledge of Educational Technology is different from the TPACK framework, therein the TPACK framework emphasizes the interactions between content, pedagogy, and technology—treating technology knowledge as separate but interacting with all other sorts of teacher knowledge. In contrast, Knowledge of Educational Technology treats the integrated understanding of teaching with technology as understandable, for the foremost part, using the Shulman's existing framework of teacher knowledge. Speci fi cally, teachers' knowledge of educational technology can be understood as three components: Content Knowledge of Educational Technology, Pedagogical Knowledge of Educational Technology, and Pedagogical Content Knowledge of Educational Technology.

2.4 TPACK as Technological Content Knowledge in Teaching

Technological Content Knowledge is a theoretical framework defined by an emphasis on the "total intersection" between technology and content (Slough & Connell, 2006). They have been used the analogy of lenses, one each for technology and content through which teaching and learning are often viewed, intrinsically the 2 components were technology and content become one. Additionally, consistent with Slough and Connell the lenses serve to "magnify" teaching and learning providing a more focused approach and collaborative professional development process. Slough and Connell offer the instance of computer-generated visualizations, because the total overlap of technology and content, offering a replacement way building scienti fi c understanding. The Technological Content Knowledge framework differs from the TPACK framework conceptualizes technology as a realm of knowledge separate from content or pedagogy and focuses on the areas of overlap between the three realms of necessary knowledge.

2.5 TPACK as Electronic Pedagogical Content Knowledge

Electronic Pedagogical Content Knowledge or ePCK was consists of data that teachers must possess so as to successfully integrate technology into their classrooms (Franklin, 2004; Irving, 2006). ePCK is not a framework necessarily but a speci fi c type of teacher knowledge that exists alongside knowledge of content, pedagogy, and curriculum. This type of data is distinctly different from basic technical knowledge and linked to teacher ef fi cacy, a necessary component of technology integration (Becker, 2000; Dawson, 1998) . Teachers who possess ePCK are able to develop and implement a curriculum that includes methods and strategies for integrating technology in content areas in an effort to maximize student learning. Electronic Pedagogical Content Knowledge differs from the TPACK framework as ePCK emphasizes pedagogical practices specific to educational technology rather than conceptualizing technology as a distinct realm of knowledge.

2.6 TPACK as Technological Pedagogical Content Knowledge-Web

Technological Pedagogical Content Knowledge - Web (TPCK-W) consists of data of TPACK components content and pedagogy, and in situ of general technology, the planet Wide Web (Lee & Tsai, 2010). TPCK-W is identified as an extension of both Shulman's (1986) original framework and Mishra and Koehler's (2006) TPACK framework. This framework was speci fi cally developed in response to the generality of technology within

the TPACK framework and attempts to elaborate and clarify the more advanced knowledge necessary to teaching speci fi cally on the online. The new Web component includes knowledge regarding general uses of the online, speci fi c Web tools, and advanced use of the online. An example of TPCK-W is having the ability to pick proper (to desired content and pedagogy) existing Web-based courses to help teaching. To summarize, although these alternative approaches employ different labels, they're in broad agreement that the arrival of latest technologies requires teachers to develop new sorts of knowledge that connect the affordances (and constraints) of those new technologies to the transformation of content and pedagogy. Early research on TPACK focused on establishing and developing the underlying conceptual framework (Koehler & Mishra, 2005a, 2005b; Mishra & Koehler, 2006). Because the TPACK framework has been increasingly adopted, research has turned to measuring TPACK also on test the effectiveness of varied TPACK-based interventions (Graham, Tripp, & Wentworth, 2009; Guzey & Roehrig, 2009). Theory above explained that using TPACK in online learning during covid-19 pandemic was necessary for teacher and students. They can use Web-based in teaching learning until the condition of this pandemic be better than before.

2.7 TPACK and Teacher

Exploring teacher education institutes (TEIs) in promote the development of TPACK, Tondeur et.all (2013) conducted a multiple case study. They found that TEIs were suitable in integrating TPACK inside curriculum. Relating TPACK to subject domains, although favoured by all, resulted in a decreased attention to ICT in the teacher education curriculum. Tondeur et al. (2013) concluded that: 'ICT should be infused into the entire curriculum so that pre-service teachers have the opportunity to (a) understand the educational reasons for using ICT and (b) ICT can support teaching and learning across different subject domains' (p. 242). This theoretical framework was suitable used by teacher in teaching during covid-19 pandemic.

2.8 XRecorder Application

Xrecorder is one of application that can be used in teaching learning activity by recording video from the screen shot of the data in mobile phone or computer.

According to Play Store information the features of this application consist of:

a. Is no time restriction
b. High definition Resolution
c. Floating
d. Recording video, TV shows, videos in YouTube, gameplay, etc.
e. A quick screenshot of the image
f. The presence of a countdown timer
g. Saving in the device memory or SD card
h. Screen Rotation all in one movement
i. A publication record in the social network.

How to operate XRecoder in mobile Phone?

1. Prepare the file that you want to record. It can be power point or book, etc.
2. Open Xrecorder application on your mobile phone or laptop.
3. Setting the quality of picture, sound, and choose the location that we want to save our document.
4. Click record while open the file
5. End the record then save.

We can send directly the file of our recording material of English lesson and share it to our students by Whatsapp group or upload first in YouTube then share the link to them.

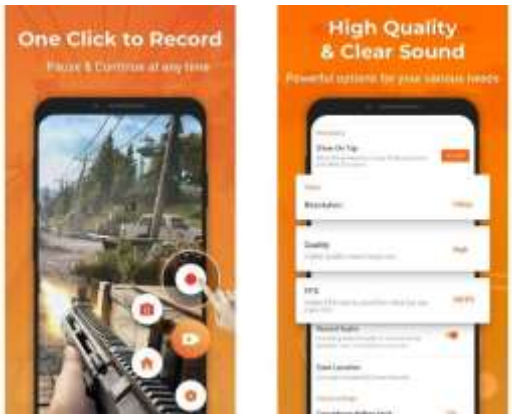

Figure 2. *The illustration of start to record the file by using XRecorder*

Figure 3. *The layout of video record by XRecorder app*

In this research, the writer use this qualification of XRecorder:

Table 1. XRecorder Qualification

APK	**Screen Recorder Video Recorder – XRecorder**
Version	**1.3.2.2**
Size	**22 MB**
Category	**Video Players & Editors**
Rating	**4.0+**
Features	**Fully Unlocked, Unlimited All**

The correlation between theoretical framework above with this research, conclude XRecorder App as a subject of technology in this research, pedagogical focus perspective of students and parent during classroom learning activity by using this application in Covid-19 pandemic. English subject as a Content knowledge of this research that the writer will dig information about implementation of XRecorder in English learning activity during Covid-19 pandemic.

2.9 The Role of Stakeholder in Education

There are many theories about stakeholder, but the suitable of theory comes from Jensen and friend. Stakeholder theory is an excuse for managerial opportunism (Jensen, 2000; Marcoux, 2000; Sternberg, 2000). The core claim is that by providing more groups who management can argue their actions benefit, stakeholder theory makes it far easier to engage in self-dealing and defend it than if shareholder theory were the sole purpose. In contrast, they argue that managers who have a duty only to shareholders are better able to judge their performance and clearly see whether they have done well (or not). Phillips, Freeman, & Wicks (2003) offer two replies: first, that much of the current managerial opportunism has been done under the banner of shareholder maximization (e.g. Enron, Worldcom) and they specifically critique the actions of Al Dunlap who grossly mismanaged a number of companies to create his own financial benefit; second, that this is an issue for any theory of organization and does not put stakeholder theory in a worse light because of it. Indeed, the authors argue there are good reasons to see stakeholder theory as creating more accountability from managers as they have more obligations and duties of care to more constituencies, and therefore less likely to engage in self-dealing.

The regulation of stakeholder based on *Kemendikbud* number 6 2019 about the organization in junior high school and employee in include:

a. Principal (The leader of School)
b. Vice principals (head of Curriculum, head of Facilitation, and head of students centre, head of public relation, and head of administration)
   The head of Curriculum was carry out the assignments of academic field such us syllabus, Academic schedule, etc. then about all about students, such us flag ceremony, event, competition, students' rotation, the organization of students, etc. Head of facilitation be responsible to prepare facilitate of learning activity include, table, chair, white board, board mark, building, etc. Public relations was communicate with other institution, inform the event, etc. the last one was head of administration all about the administration in school, such us make a letter, list of students, etc.
c. Teacher
   Be responsible in teaching learning activity.
d. Librarian

III. Research Methods

The researcher use a descriptive qualitative. Qualitative research is a set of research techniques in which data are obtained from relatively group respondents. The most important in qualitative research techniques are the narrative and the visual research, which is still often neglected.

Sugiyono (2014:1) states that qualitative method is a research method which is used to observe natural object situation. In this method, the researcher as the main point of the research, the technique of collecting data is done by triangulation technique, the analysis of the data inductive, and the result of the research are emphasized to the meaning and

generalization. In this research, the researcher collects the data by observation and interviews the English teachers and students in SMP Islam Ngemplak Boyolali to know the objective of this research about the use of XRecorder app in teaching English during this covid-19 pandemic**.**

IV. Results and Discussion

4.1 Head of Curriculum's Perspective

The coordinator of the lesson in school called the head of curriculum. One of Their duty was about the adjustment of curriculum in every situation, include in pandemic covid-19 now. The role from head of curriculum was about prepare the schedule, regulation in teaching learning, etc. make it the centre of learning activity and management in school.

Because of the description above, the perspective from head curriculum needed by researcher to collect the data about the stakeholder's perspective of XRecorder in teaching English.

The result of interview with the head of curriculum was concluded in this chapter. According to him, the process of learning is online and offline.

> *He said "the process of learning activity during pandemic covid-19 was online and offline. The students will take the task for every subject then finish it at home, then submit again later.*"

For many factors happened during this pandemic such us signal, he explained that they took WA (Whatsapp application) for discuss and share the material.

> The head of curriculum told the researcher "*we ever used another application for video call, such us zoom, google classroom, etc. but the problem was signal and quota for our students. According of that reason, we just used WA for teaching learning activity.*

It will be becoming difficult when teacher cannot explained material well because of signal and quota that students' have. As a teacher, we have to create some interesting material to give understanding for the students.

One of the solution for solving the quota and signal that ever appeared in every teaching learning was making such a great video material with an application such us XRecorder.

> "*The English teacher made such a kind of video by using XRecorder. It was great to make some video on tutorial for our students because of our school cannot force teacher and students to take speciality of technology based on our environment's difficulties about signal and quota. There are many parents ask us used WA only." He said. Many students comment was great and excited during lesson. The video and audio was clear, and it is thrifty. It was practical."*

There are any demands from supervisor to the teacher about teaching online during Covid-19 pandemic like "*teacher should make an interesting learning*". Based on his explanation, making video by using XRecorder was needed to support any demands from supervisor.

> "*Students was interest now than before used video by XRecorder. Students try to answer the question from teacher by using English. I try to download the video and it was lowest capacities than the product from other application"*, he said.

The curriculum support this media in teaching learning because of the thrifty, interesting, and creative, innovative, and it can be shared for another English teacher for better progress in teaching during covid-19 pandemic.

He said "*I will support my English teacher to keep this media, because of it was fascinating and beneficial*.

Based on the interviews above, we can conclude that there are many benefit from XRecorder application based on the head of curriculum in SMP Islam Ngemplak such us interesting learning, clear video, and appropriate with the students' environment and economical issue like low quota and capacities of download. This is suitable to apply in this school based on the source person above. By using technology in pandemic covid-19 like this, teacher demand to understand the condition of students, parents, and their environment, so the teaching learning process still happened and interesting for students without spending a lot of money.

4.2 Principal's Perspective

The highest priority in the school was called principal. They have a big role in school start from simple to the big decisions including teaching learning. In the process of learning must be approval by the principal including the media, the procedure, the material, etc. such us when English teacher want to use XRecorder for creating the viedo learning in teaching activity during Covid-19 pandemic. Because of the description, the perspective from principal needed by researcher to collect the data about the stakeholder's perspective of XRecorder in teaching English.

The result of interview with the principal was concluded in this chapter. According to him, the process of learning is online and offline and just use whatsapp application to communicate with students because of some factors. .

> *He said "the process of learning activity during pandemic covid-19 was online and offline, until we get permit to study at school. We just used Whatssapp because of if we use another application such us zoom, Google classroom, we got complaints from parents, because of the signal in their environment.* "

As a principal, she has to think how was creating the interesting learning during pandemic Covid-19. Supervisor said that teachers have to be creative and innovative and it felt challenge from her.

> "*Mrs. Supervisor told us that we have to still creative and innovative during Covid-19 pandemic then one of my teacher use XRecorder for creating media. I don't understand how to operate it before, then she teach me how to do it. This is great because of practical, you can teach just by phone and that result of a video was clear. It is accordance with the supervisor want*"

The principal asked the students, when they came to take the task for offline class at home about how is the English learning and the students said it was very thrifty quota and interesting.

> "*My students asked me that it was very thrifty, and interesting. They were very excited when it was about English. I try to download the video from XRecorder from English teacher, and it was really low capacities and quota then interesting. This needed by our students based on their environment and economical issue. It was suitable for our parents of students. "*

The principal supported this media in teaching learning because of the thrifty, interesting, and creative, innovative, and it can be shared for another English teacher for better progress in teaching during covid-19 pandemic.

> She said *"I will support my English teacher to use it, of course, because of it was fascinating and beneficial, and suitable with our environment. I hope for the future, our teacher increase their knowledge about technology, so they already to solve any problem that will happen."*

Based on the interviews above, we can conclude that there are many benefit from XRecorder application based on the principal's interview such us low quota, capacities, interesting learning, clear video, and appropriate with the students' environment and economical issue like low quota and capacities of download as a the head curriculum said before. . By using technology in pandemic covid-19, teacher demand to understand the condition of students, parents, and their environment first before take the media, learning management system, and method of teaching to create a significant learning.

V. Conclusion

The effect of Covid-19 in education sector was very visible. The time of learning, method, curriculum, and media to adjust learning activity with students' condition, students' family, etc. changed surely. As a teacher, we have to use some application to support our learning activity and make students interest with learning process during covid-19 pandemic.

XRecorder application is one of the tool making easy in learning, interest and low quota based on students and teacher perception above. It was practical also, because we can make video learning from mobile phone with less space of RAM. For the next researcher, we have to make research with detail aspect from it.

References

Arikunto, Suharsimi. 1997. *Prosedur Penelitian Suatu Pendekatan Praktek.* Jakarta: PT Rineka Cipta.

Atmojo, A. E. P., & Nugroho, A. (2020). EFL Classes Must Go Online! Teaching Activities and Challenges during COVID-19 Pandemic in Indonesia. *Register Journal*, *13*(1), 49–76. https://doi.org/10.18326/rgt.v13i1.49-76

Brown, H Douglas. 2003. *Language Assessment: Principles and Classroom Practice.* London: Longman.

Cakrawati, L. M. (2017). Students' Perceptions on the Use of Online Learning Platforms in Efl Classroom. *English Language Teaching and Technology Journal (ELT-Tech Journal*, *1*(1), 22–30. https://doi.org/DOI: https://doi.org/10.17509/elt%20tech.v1i1.9428

Chhabra, P. (2012). Use of E-Learning tools in teaching English. *International Journal of Computing & Business Research*, *3*, 2229–6166.

Dharmawati, D. (2021). An Analysis of Students' Learning Independence in Learning English for Computer Using Google Classroom. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *4*(2), 1635–1642. https://doi.org/10.33258/birci.v4i2.1825

Fransson, G., & Holmberg, J. (2012). Understanding the Theoretical Framework of Technological Pedagogical Content Knowledge: A collaborative self-study to understand teaching practice and aspects of knowledge. *Studying Teacher Education*, *8*(2), 193–204. https://doi.org/10.1080/17425964.2012.692994

Hudaya, D. W. (2017). *EFL Learning Strategy Use by Junior High School Students*. *1*(1), 40–49.

Information, P. (n.d.). *Certificate in Teaching English as a Second Language Certificate in Teaching English as a Second Language*. 297–301.

Kuama, S., & Intharaksa, U. (2016). Is Online Learning Suitable for All English Language Students? *PASAA: Journal of Language Teaching and Learning in Thailand*,

52(December), 53–82. Retrieved from http://libproxy.usc.edu/login?url=https://search.proquest.com/docview/1895977430?accountid=14749

Mazurczyk, W., Karaś, M., Szczypiorski, K., & Janicki, A. (2016). YouSkyde: information hiding for Skype video traffic. *Multimedia Tools and Applications*, *75*(21), 13521–13540. https://doi.org/10.1007/s11042-015-2740-0

Mishra, P., & Kereluik, K. (2011). What 21st century learning? A review and a synthesis. In M. Koehler & P. Mishra (Eds.), Proceedings of Society for Information Technology and Teacher Education International Conference 2011 (pp. 3301–3312). Chesapeake, VA: AACE.

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record , 108 (6), 1017–1054.

Mishra, P., Koehler, M. J., & Henriksen, D. (2011). The seven transdisciplinary habits of mind: Extending the TPACK framework towards 21st century learning. Educational Technology, 11 (2), 22–28.

Mishra, P., Koehler, M. J., & Kereluik, K. (2009). The song remains the same: Looking back to the future of educational technology. TechTrends, 53 (5), 48–53.

Ningrum, P. A., et al. (2020). The Potential of Poverty in the City of Palangka Raya: Study SMIs Affected Pandemic Covid 19. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No 3, Page: 1626-1634

Saleh, A., Mujahiddin. (2020). Challenges and Opportunities for Community Empowerment Practices in Indonesia during the Covid-19 Pandemic through Strengthening the Role of Higher Education. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. Volume 3, No 2, Page: 1105-1113.

Shulman, L. E. (1986). Those who understand: Knowledge growth in teaching. Educational Research , 15 (2), 4–14.

Sihombing, E. H., Nasib. (2020). The Decision of Choosing Course in the Era of Covid 19 through the Telemarketing Program, Personal Selling and College Image. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No. 4, Page: 2843-2850.

Spector, J. M., Merrill, M. D., Elen, J., & Bishop, M. J. (2014). Handbook of research on educational communications and technology: Fourth edition. *Handbook of Research on Educational Communications and Technology: Fourth Edition*, 1–1005. https://doi.org/10.1007/978-1-4614-3185-5

Widodo, B., Muchtar, S. Al, & Ar, E. D. (2020). *Strengthening Digital Citizenship through Citizenship Education Based on Science , Technology and Society in Era 4 . 0*. (2008), 3859–3868.