

## **EFL Teachers' Beliefs In Teaching Writing Through The TPACK Framework**

**Sri Mila Sari**

1810631060115@student.unsika.ac.id

**Yogi Setia Samsi**

yogi.setiasamsi@staff.unsika.ac.id

**Dayat Hidayat**

dayat.hidayat@fkip.unsika.ac.id

**University of Singaperbangsa Karawang**

### **ABSTRACT**

Covid-19 has caused changes in learning activities. Teaching and learning activities that were previously face-to-face have changed to distance learning that requires technology. Unfortunately, not all teachers have sufficient competence regarding technology integration in teaching. Therefore, a knowledge concept called TPACK emerged, which can help improve teacher competence in technology. The TPACK framework is believed to help teachers design teaching activities that can stimulate, motivate, and make students more active because they are facilitated by technology. However, several factors can hinder teachers from integrating technology into teaching, one of which is the teacher's beliefs. Therefore, the researchers focused on exploring teachers' beliefs in teaching writing through the TPACK framework. The research was conducted at one of the Klari Karawang Middle Schools involving two EFL teachers. Data were obtained through interviews, observation, and documentation. The results of this study found that six factors shape teachers' beliefs in teaching writing through the TPACK framework. In addition, the beliefs they profess are reflected in their teaching practices.

**Key words:** Teachers' Beliefs; Teaching Writing; The TPACK Framework

### **INTRODUCTION**

The spread of COVID-19 since 2019 has impacted the education sector to impose a new policy for schools. The new policy has affected teaching and learning activities. The learning activities previously carried out face-to-face has been turned into distance learning (Darmalaksana et al., 2020; Sutarto et al., 2020). Consequently, the sudden transition in teaching and learning activities causes a lack of readiness in several aspects, such as teacher competence, student-parent preparations, and internet access. Furthermore, the competence of teachers who are still not good at integrating technology causes this learning model to be less than optimal. Teachers should have sufficient digital competencies to master ICT

and integrate it into their teaching and learning process (Hatlevik et al., 2018). Therefore, one of the concepts that can help teachers understand and integrate technology into teaching activities is the TPACK framework.

Technological, pedagogical, and content knowledge (TPACK) is a theoretical framework developed by Mishra & Koehler (2006). According to them, TPACK is how teachers understand technology, content, and pedagogical knowledge integrated into their teaching. Furthermore, TPACK is a technology integration model that explores teachers' understanding of how a teacher can use technology as a pedagogical tool in teaching activities. In teaching foreign languages, the concept of TPACK is fundamental for teachers to understand because the integration of technology can determine the effectiveness of the language learning process. In other words, if a teacher has a high level of understanding and practice of TPACK, then he will be able to design teaching activities that can stimulate, motivate, and make students actively involved in the teaching and learning process (Rahimi & Pourshahbaz, 2019). Thus, it cannot be denied that teacher knowledge about technology, pedagogy, and content has an important role in EFL teaching because it can help improve the quality of teaching activities.

Unfortunately, several factors can hinder technology integration in the teaching process, such as attitude, beliefs, and teaching literacy in ICT. In line with that, Ertmer (2005) said that teachers' beliefs are one of the major obstacles to integrating technology in the classroom. Furthermore, teachers' beliefs can influence how they adopt a pedagogical approach, strategy, and method to make teaching content by using various technology devices, so it was easier to understand by students (Donaghue, 2003; Rahimi & Pourshahbaz, 2019)

There are several research studies on teachers' beliefs regarding the TPACK framework in teaching English. Unfortunately, most of the previous studies were focused on exploring teachers' beliefs about the TPACK framework in teaching English which was still not specific in one aspect of skills such as writing, reading, etc. Thus, to fill this gap, the researcher in this study intended to explore teachers' beliefs about the TPACK framework in writing. However, in the research of teachers' beliefs about the TPACK framework, instead of considering the TPACK structure as a knowledge area, it is better to align the TPACK structure with the pusher intuition in which teachers organize their beliefs about the TPACK framework (Aniq et al., 2022). Thus, the researcher in this research doesn't look at the TPACK structure on teachers' knowledge aspect but focuses more on the teachers' beliefs aspect. Therefore, this research was conducted to explore teachers' beliefs in teaching writing through the TPACK framework.

## **LITERATURE REVIEW**

### **Previous Related Study**

So far, there have been several studies on teachers' beliefs about TPACK in teaching English. Research conducted by So & Kim (2009) aims to explore the opinions of prospective teachers about TPACK and the difficulties they face in applying TPACK to problem-based technology-based learning designs. This study found that teacher candidates had good knowledge and understanding of PBL pedagogy and technology integration. Unfortunately, they still experience difficulties applying their beliefs and knowledge to lesson plans. Meanwhile, Ding et al. (2019) explored teachers' pedagogical beliefs, particularly regarding their practice of integrating content and technology. Furthermore, this study found that teachers' beliefs about certain pedagogical content influenced teachers' use of technological tools in supporting English teaching activities. In addition, it was also found that there is harmony between the pedagogical beliefs of EFL teachers' content and their practice of integrating technology into teaching activities.

On the other hand, Taopan et al. (2019) explore EFL teachers' beliefs in the tpack framework for teaching English and how these beliefs can be shaped throughout their careers. This study found that EFL teachers hold some beliefs in the TPACK framework for teaching English, such as teachers believing that the integration of technology should be able to create and facilitate English learning activities that can facilitate students. In addition, teachers' beliefs are formed through experience, training, and other factors. Furthermore, Aniq et al (2022) explored teachers' beliefs in teaching writing with the TPACK framework and the implementation of teachers' beliefs in their writing teaching practices. In this study it was found that teachers have some of the same and different beliefs, especially regarding beliefs in learning objectives, assessment, and the role of the teacher. In addition, teachers realize that TPACK can help them design learning objectives that combine technology, pedagogy, and content to create optimal learning objectives.

### **The Theory of Teachers' Beliefs.**

The term "teacher belief" still has a vague definition, or no single definition can fully define it. However, teacher beliefs have been studied in various terms, like teacher cognition (S. Borg, 2003). The term teacher belief is usually used to refer to a teacher's pedagogic beliefs or beliefs relevant to individual teaching (M. Borg, 2001). Every teacher has different beliefs about the teaching and learning process. This is in line with Richards (1996) (Farrell & Ives, 2014) that teacher beliefs usually reflect personal teaching philosophies. In addition, teachers' beliefs also reflect their values and ideologies about teaching and learning. Furthermore, the teacher's belief in the teaching and learning process is essential because it can determine the actions to be taken in the classroom. Every step they take is guided by the beliefs they have. This belief guides every teacher's decision-making, both instructional, curricular, and evaluative decisions (Good & Brophy in Ersel

Kaymakamoglu, 2017)). Thus, influencing their choices, decisions, and actions in the teaching and learning process.

Teacher beliefs can be classified into several aspects. According to Richards & Lockhart (1996), they classified types of teacher beliefs as (1) Teachers' beliefs about English sometimes represent stereotyped impressions, such as people's attitudes and views on the use or function of English. However, these beliefs still reveal realities that can influence teaching practice; (2) Beliefs about learning to refer to teachers' beliefs about their professional development. Their professional development is based on their experiences, such as experiences in training, teaching experiences, and experiences as learners. Thus, the experience they gain will assist them in choosing suitable materials, techniques, activities, and media to use in their teaching practice; (3) Teachers' beliefs about teaching reflect all the actions they take in the classroom. In other words, teachers' teaching practices are often reflected in their beliefs; (4) Beliefs about programs and curricula used by schools are fundamental. Each language teaching program reflects the institution's culture, such as how they think and behave in the institution, how they usually make decisions, and the collective beliefs of each teacher. In-school programs, these collective beliefs of teachers influence how they perceive things such as lesson planning, teaching objectives, and assessment formats which can lead to different teaching practices; (5) Beliefs about Language Teaching as a Profession.

### **Teaching Writing Skills**

Writing is one of the skills that students need to master in language learning. Furthermore, writing is a form of communication that involves compiling sentences to retell pieces of information in the form of narratives, descriptions, etc. (Budiarti et al., 2013). In addition, writing is a discovery process that involves searching for ideas, how to arrange them and what to write in writing (Oshima and Hogue, 2007; Taufikurohman, 2018). Writing is difficult to teach or learn because it involves psychological processes such as careful thinking, discipline, and concentration (Grami, 2010). As a result, students feel reluctant to write and consider it one of the school's obligations. Therefore, so that students are interested in learning to write, teachers need to involve them in teaching and learning activities.

According to Harmer (2004), there are five stages teachers can use in teaching writing: demonstrating, motivating and provoking, supporting, responding, and evaluating. The following is a more detailed explanation of the five stages:

1. **Demonstrating:** in this step, the teacher gives students an example of a text, including the text's purpose, social function, grammatical characteristics, and general structure. In addition, teachers need to make these features attractive so they can become students' attention while learning to write.

2. **Motivating or provoking:** in this second stage, before the teacher enters the material in writing, the teacher needs to prepare teaching materials/media that can stimulate students' brains so that they can generate ideas. The teaching materials used can be in the form of videos, images, or other media.
3. **Supporting:** at this stage, the teacher needs to support students during writing activities, from ideas to the writing process. Therefore, it is valuable time to provide feedback on student work at this stage. In addition, they must assist students in solving student problems in writing.
4. **Responding:** at this stage, usually, the teacher will respond to the content and construction of students' writing by frequently providing suggestions for improvement. Furthermore, in this phase, the teacher will not give value to student work as a product, but the teacher will provide comments, corrections, and suggestions so that student work can be even better.
5. **Evaluating:** at this last stage, the teacher assesses the student's work as the final product so that the teacher can get value from the student's writing.

### **The TPACK Framework**

Technological Pedagogical Content Knowledge (TPACK) is a theoretical framework developed by Mishra & Koehler (2006), which aims to understand the teacher knowledge needed for effective technology integration. It further explains how teachers' understanding of technology, content, and pedagogy interact to produce effective teaching using technology (Koehler & Mishra, 2008). In other words, technology, pedagogical and content knowledge (TPACK) refers to the knowledge teachers need to integrate technology into their teaching on each material to create the best learning atmosphere for students.

Furthermore, TPACK is the knowledge that refers to the complex relationship between technological knowledge, pedagogical knowledge, and teacher subject matter knowledge (Mishra & Koehler, 2006). There are six components of knowledge (technology, pedagogy, and content) in the TPACK framework, which then interacts with each other. First, Technology Knowledge (TK) refers to the capacity of teachers to use traditional (standard) and modern (digital) technology that can be integrated into teaching activities (Koehler et al., 2013). Second, Content Knowledge (CK) is the teacher's knowledge of the subject matter to be studied or taught (Mishra & Koehler, 2006). Third, Pedagogical Knowledge (PK) is the teacher's knowledge of procedures, processes, practices, strategies, and teaching methods (Koehler & Mishra, 2008). Fourth, Pedagogical Content Knowledge (PCK) explains teacher knowledge in learning and how these subjects are presented pedagogically (Surayya & Asrobi, 2020). Fifth, technological Pedagogical Knowledge (TPK) is the teachers' ability to choose and utilize the right technology to support the application of various learning tools (Sintawati & Indriani, 2019). Sixth, technological content knowledge (TCK) refers to the teacher's understanding of how the subject matter can be changed using certain technologies (Mishra & Koehler, 2005).

## **METHOD**

### **Design and Samples**

This research uses a descriptive case study design presented with a qualitative approach. Furthermore, a descriptive case study was selected in this study to explore and provide an in-depth picture of teachers' beliefs in teaching English through the TPACK framework. Then, This research was conducted at a junior high school in Karawang, involving two teachers as participants. Participants in this study were selected by considering several criteria, such as teachers who know the TPACK framework and teachers who have integrated technology in teaching.

### **Instrument and Procedure**

The instrument of this study used semi-structured interviews, checklist observations, and documentation. Semi-structured interviews were conducted two times, including pre-observation and post-observation interviews. This step was carried out to obtain in-depth information about the beliefs held by the teacher during English teaching activities. Meanwhile, the observations checklist was used to describe participants' behaviors, habits, and actions during teaching activities to be adjusted to the beliefs expressed in previous interviews. The observation activity lasted for four meetings. At the same time, researchers used documentation to complete research data that had previously been obtained from interviews and observations.

### **Data Analysis**

The data that has been collected is then analyzed using analytical techniques from (Miles & Huberman, 1984), which includes four stages. The first step was data collection. Researchers collect data obtained from interviews, observations, and documentation. The second step was analyzing qualitative data involves data reduction. Therefore, the data collected by researchers in the field from interviews, observations, and documentation were reduced by summarizing, identifying, and focusing on data relevant to the research objectives. The third step was data display. At this stage, the researchers used data display to present essential data related to the research. The data that has been provided, such as transcript interviews, field notes, and documentation notes, have been coded to help researchers analyze data easily and quickly. Each code that has been built is analyzed through a textual view. The last step in qualitative data analysis was verification/conclusion. The conclusion is the answer to the problem formulation and questions the researcher has asked. Based on the data that has been reduced and presented, the researcher made conclusions that were supported by solid evidence at the data collection stage.

## RESULT AND DISCUSSION

The findings of this research are divided into two sub-themes, namely teachers' beliefs in teaching writing through the TPACK framework and how teachers' beliefs are reflected in teaching practices in the classroom.

### 1. Teachers' beliefs in teaching writing through the TPACK framework a. Learning objectives

In setting learning objectives, teachers sometimes have the same beliefs because they are influenced by the curriculum or program that applies in the school where they teach. In their theory, Richard and Lockhart (1996) said that every language teaching program reflects the institutional culture, one of which is how they make decisions and the collective beliefs of each teacher, such as lesson plans, learning objectives, and assessment formats. In line with that, in the writing teaching program, both teachers believe that the purpose of learning to write was for students to know and understand the social function of the text, structure, and language of the text being taught. In addition, they also believe that the purpose of learning to write is for students to be able to write their texts.

*The purpose of learning this material was for students to know what procedure text, the stages, the arrangements in the procedure text, and what should be in the procedure text. The point was that besides the children understanding and knowing about procedure texts. They could also make procedure texts based on their own experiences. (R1)*

*The aim was that students knew not only the types of texts but also the purpose of writing procedure texts and the steps involved in procedure texts. (R2)*

Furthermore, to strengthen beliefs about the purpose of this learning, Jannah (2016) revealed that the purpose of learning English was to develop students' listening, writing, speaking, and listening skills so that they could use language to learn, and communicate ideas, views, and feelings. . Thus, teachers have the same beliefs regarding learning objectives. They believe that the purpose of learning to write is for students to be able to write texts and understand and know the function, structure, and language of texts.

### b. Instructional Materials

Teaching materials are resources that can support teaching activities in class. Teaching materials must provide knowledge that fits the needs of students. Therefore, teachers need to develop teaching materials to expedite the teaching and learning process in the classroom. In practice, the two teachers did not only use the book "Think Globally Act Locally" as their primary teaching resource. But they also develop teaching materials by seeking from other sources such as other supporting books, learning videos (youtube), and learning websites.

*Usually, I looked for other sources on the internet, for example, through learning sites. I also sometimes looked for other teachers' learning videos on YouTube, and then I would adapt them to my understanding and teaching methods. (R1)*

*Yes, I used digital teaching materials. For example, I searched the materials on the internet or video-sharing sites. While for assignments, I took from the textbook. (R2)*

In developing the material, the two teachers believed that by utilizing teaching materials from the internet (videos and learning sites), they could enrich the material to produce appropriate teaching content. Furthermore, Marie Cox & Marie (2008) added that the teacher's knowledge of TCK, namely the integration of technology in teaching, can change the representation of material and the manufacture of teaching materials. In other words, using technology such as learning videos or websites can assist teachers in creating and developing teaching materials. In addition, the practices carried out by teachers in selecting and developing teaching materials already reflect the beliefs.

### **c. Learning Media**

Learning media is a tool used by teachers to support the teaching and learning process in class. Based on the observations, the two teachers used conventional and digital learning media in their teaching practices. In this case, they used laptops and LCD projectors in teaching. Then, they presented the material in PowerPoint format. They believe that effective and interesting teaching activities can be created through this medium. In addition, they also used the pictures in PowerPoint as an illustration of the activities of the material being taught. Therefore they believe that through this media, students would be more interested in participating in learning activities. Thus, apart from listening to verbal explanations from the teacher, students can also see examples of activities through pictures and read text from material displayed through PowerPoint.

*I used a PowerPoint and a projector because they made conveying the material easier. It was beneficial because I didn't need to write, and it also could display pictures that could attract children's (students) attention. After all, sometimes, with pictures, they are more interested and excited. (R1)*

*Those media were used because it was pretty helpful in learning. After all, children (students) could see the text directly, and examples of material and questions were given. So, multimedia like power points was quite effective in supporting learning activities. (R2)*

This belief is also in line with previous research by Aniq et al. (2022), which stated that multimedia in class could attract student awareness and offer students opportunities to understand better the material presented. In other words, based on



this belief, it is known that teachers can choose and use digital learning media. Therefore, teachers' belief in learning media relates to technological pedagogic knowledge, where teachers can select and utilize technology to support learning (Sintawati & Indiriani, 2019).

#### **d. Teaching Activity**

According to Richards & Lockhart (1996), lessons must be arranged sequentially to achieve teaching objectives. They added it aims to minimize the loss of momentum when there is a change in activity. Teachers are influenced by their beliefs about student learning in developing teaching procedures. R1 believes that learning activities must make students independent and active. Therefore, R1 revealed that he used discussions, questions, and answers as teaching activities. This is in line with his teaching practice; she places more emphasis on discussion activities by giving group assignments to students.

*When I teach, I like to do discussion and question-and-answer activities during the lesson. But I still explained it to the students. (R1)*

*The aim was to make students more independent and active, but these activities couldn't be done at all grade levels, at least in grade 9. (R2)*

Meanwhile, R2 thought lectures and discussions were more suitable for teaching writing activities. According to her, lectures were used to transfer material to students. At the same time, the discussion was carried out through question-and-answer activities regarding parts of the material that students still do not understand.

*I used the lecture technique because we had to provide information or knowledge about the procedure text to the students first. The method used was the lecture, but in the middle of the learning process, there was an interaction between students and teachers. When students wanted to ask questions about the material to be given, there was interaction and discussion between teachers and students. (R2)*

To strengthen this belief, Koehler and Mishra (2014) revealed that in teaching subject matter, teachers need an understanding of the content and develop appropriate instructional strategies and skills for students. In addition, teachers' knowledge of content and pedagogy conforms with teachers' beliefs about classroom procedures and teaching practices. This is in line with the theory from Buehl and Beck (2015), which says that teachers must know to apply their beliefs in teaching practice.

#### **e. Assessment**

Assessment is a way to collect information about students' abilities and knowledge. In addition, assessment is also used to see the extent to which learning

objectives have been achieved. In conducting the assessment, each teacher has different beliefs depending on their experience. In conducting the assessment, there are indicators that the teacher considers. Both teachers agreed that they considered indicators such as grammar, vocabulary, content, and structure in assessing students' writing. This is in line with previous research by (Rovikasari et al., 2020), which stated that teachers use five categories in the writing assessment rubric, including content, organization, vocabulary, use of language/grammar, and mechanics.

*When assessing students' writing results, I usually paid attention to vocabulary and grammar. I also see whether the content they write was structured or not. (R1)*

*The component that I paid attention to was the vocabulary... then also the sentence structure.... And lastly, the content was mainly made initially by students. (R2)*

## **2. How teachers' beliefs are reflected in teaching practices in the classroom.**

All writing teaching activities carried out by the teacher are based on the above beliefs. In other words, there is conformity between the beliefs held by the teachers and the practice of teaching writing that they do in class. This is reflected in every action the teacher takes during the teaching and learning process, following the beliefs he adheres to. In practice, the teaching activities carried out by the teacher reflect their learning objectives. The teacher asks about the material that has been taught to students again. In addition, the teacher also gives practice to students writing procedural texts.

Regarding teaching materials and learning media, the teacher uses the book "Think Globally Act Locally" as the main teaching material. In addition, teachers also develop their teaching materials by utilizing other sources such as the internet (learning videos and learning websites) and other textbooks. This is reflected in the material they provide to students during the learning process, which is different from the material in the book. In addition, the teacher conveys the material using PowerPoint and an LCD projector. The teacher also adds pictures in PowerPoint to illustrate examples of the procedure text being taught.

In addition, teachers have presented class activities such as discussions, lectures, and questions and answers in their learning process. Finally, in practice, the teacher assesses student texts by paying attention to content, structure, grammar, and vocabulary. Thus, every teacher's action, from the goal to the assessment, is in accordance with their beliefs. This is in line with Kuzborska's (2011) statement that teachers' beliefs can affect their goals, procedures, materials, interaction patterns, and roles during teaching. Then, Buelh & Beck (2015) added that when teacher beliefs are correlated, aligned, or reflected in practice, it can be concluded that teacher beliefs influence teaching practice.

## CONCLUSION

This research was conducted to explore EFL teachers' beliefs in teaching writing through the TPACK framework. A descriptive case study design was used in this research method. Researchers used three instruments to obtain data: interviews, observation, and documentation. Based on observations and interviews with the two teachers, the researchers concluded that each teacher had different beliefs about the concept of teaching. In the interview results, the researcher found five teacher beliefs in teaching writing through the TPACK framework: learning objectives, instructional materials, digital learning media, teaching activity, and assessment. Fortunately, all of their beliefs were implemented in teaching practice. Based on the researchers' observations, the two EFL teachers were consistent with their teaching practices.

## REFERENCES

- Aniq, L. N., Drajadi, N. A., & Fauziati, E. (2022). *Covid- 19 outbreak response : Tracing EFL teachers ' beliefs & practices of TPACK in teaching writing*. 12(1), 137–148. <https://doi.org/https://doi.org/10.17509/ijal.v12i1.46535>
- Borg, M. (2001). key concepts in elt Teachers' beliefs. *ELT Journal*, 55(2), 353–381. <https://doi.org/10.1515/9783110197372>
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(2), 81–109. <https://doi.org/10.1017/S0261444803001903>
- Buelh, M. M., & Beck, J. S. (2015). The Relationship Between Teachers' Beliefs and Teachers' Practices. In H. Fives & M. Gregoire (Eds.), *International Handbook of Research on Teachers' Beliefs* (1st ed., pp. 66–84). Routledge.
- Darmalaksana, W., Hambali, R. Y. A., Masrur, A., & Muhlas. (2020). Analisis Pembelajaran Online Masa WFH Pandemic Covid-19 sebagai Tantangan Pemimpin Digital Abad 21. *Karya Tulis Ilmiah (KTI) Masa Work From Home (WFH) Covid-19 UIN Sunan Gunung Djati Bandung Tahun 2020*, 1(1), 1–12.
- Ding, A. E., Ottenbreit-leftwich, A., Lu, Y., Glazewski, K., Ding, A. E., Ottenbreit-leftwich, A., Lu, Y., Glazewski, K., Ottenbreit-leftwich, A., & Lu, Y. (2019). EFL Teachers' Pedagogical Beliefs and Practices With Regard to Using Technology. In *Journal of Digital Learning in Teacher Education* (Vol. 0, Issue 0). Routledge. <https://doi.org/10.1080/21532974.2018.1537816>
- Donaghue, H. (2003). An instrument to elicit teachers' beliefs and assumptions. *ELT Journal*, 57(4), 344–351. <https://doi.org/10.1093/elt/57.4.344>
- Ersel Kaymakamoglu, S. (2017). Teachers' Beliefs, Perceived Practice and Actual Classroom Practice in Relation to Traditional (Teacher-Centered) and Constructivist (Learner-Centered) Teaching (Note 1). *Journal of Education and Learning*, 7(1), 29. <https://doi.org/10.5539/jel.v7n1p29>
- Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational Technology Research and*

- Development*, 53(4), 25–39. <https://doi.org/10.1007/BF02504683>
- Farrell, T. S. C., & Ives, J. (2014). Exploring teacher beliefs and classroom practices through reflective practice: A case study. *Language Teaching Research*, 19(5), 594–610. <https://doi.org/10.1177/1362168814541722>
- Hatlevik, O. E., Throndsen, I., Loi, M., & Gudmundsdottir, G. B. (2018). Students' ICT self-efficacy and computer and information literacy: Determinants and relationships. *Computers and Education*, 118(November 2017), 107–119. <https://doi.org/10.1016/j.compedu.2017.11.011>
- Jannah, S. M. (2016). *the Implementation of Teaching English To the Tenth Grade Students At Smk Negeri 8 Surakarta in 2015 / 2016*. MUHAMMADIYAH UNIVERSITY OF SURAKARTA.
- Koehler, M. J., & Mishra, P. (2008). Introducing TPACK. In T. A. C. on I. and Technology (Ed.), *Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators* (1st ed.). Routledge.
- Koehler, M. J., Mishra, P., & Cain, W. (2013). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education*, 193(3), 13–19. <https://doi.org/10.1177/002205741319300303>
- Kuzborska, I. (2011). Links between teachers' beliefs and practices and research on reading. *Reading in a Foreign Language*, 23(1), 102–128.
- Marie Cox, S., & Marie, S. (2008). *A Conceptual Analysis of Technological Pedagogical Content Knowledge*. *BYU ScholarsArchive Citation*. <https://scholarsarchive.byu.edu/etd>
- Miles, M. B., & Huberman, A. M. (1984). Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft. *Educational Researcher*, 13(5), 20–30. <https://doi.org/10.3102/0013189X013005020>
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Rahimi, M., & Pourshahbaz, S. (2019). *English as a Foreign Language Teachers' TPACK: Emerging Research and* (L. A. Tomei & R. Morris (eds.); 1st ed.). IGI Global.
- Richards, J. C., & Lockhart, C. (1996). Reflective Teaching in Second Language Classrooms. In J. C. Richards (Ed.), *The Modern Language Journal* (1st ed., Vol. 79, Issue 1). <https://doi.org/10.2307/329404>
- ROVİKASARĪ, M., . S., & SUPRĪYADĪ, S. (2020). Teachers' Attitudes Toward Discovery Learning: A Case Study in Writing Class. *International Journal of Educational Research Review*, 135–140. <https://doi.org/10.24331/ijere.686679>
- Sintawati, M., & Indriani, F. (2019). Pentingnya Technological Pedagogical Content Knowledge (Tpack) Guru di Era Revolusi Industri 4.0. *Prosiding Seminar Nasional Pagelaran Pendidikan Dasar Nasional (Ppdn) 2019*, 1(1), 417–422. <http://seminar.uad.ac.id/index.php/ppdn/article/view/1355>
- So, H., & Kim, B. (2009). *Learning about problem based learning: Student teachers integrating technology , pedagogy and content knowledge*. 25(1), 101–116.

- Surayya, S. A., & Asrobi, M. (2020). Tracing Technological Pedagogical Content Knowledge (TPACK) on Practical EFL Teachers in Writing Context. *VELES Voices of English Language Education Society*, 4(2), 177–190. <https://doi.org/10.29408/veles.v4i2.2417>
- Sutarto, S., Sari, D. P., & Fathurrochman, I. (2020). Teacher strategies in online learning to increase students' interest in learning during COVID-19 pandemic. *Jurnal Konseling Dan Pendidikan*, 8(3), 129. <https://doi.org/10.29210/147800>
- Taopan, L. L., Drajadi, N. A., & Sumardi, S. (2019). Indonesian Journal of Informatics Education Discovering the teacher ' s beliefs in TPACK framework for teaching English in high school. *Indonesian Journal of Informatics Education*, 3(1).
- Taufikurohman, I. S. (2018). THE EFFECTIVENESS OF USING PADLET IN TEACHING WRITING DESCRIPTIVE TEXT (A Mixed Methods at 10th Grade of One Senior High School in Ciamis). *Journal of Applied Linguistics and Literacy*, 2(2), 71–88.