SNAP TO READ

THE TPACK FRAMEWORK IN TEACHING LOGICAL DIVISION PARAGRAPH BY THE PRACTICUM LECTURER

SHOFI AYU SINTA , LESTARI SETYOWATI
Universitas Negeri Malang
1shofi.ayu.1902216@students.um.ac.id , 2 lestarisetyowatifs@um.ac.id

First received: January 17, 2024 Final proof received: June 28, 2024

Abstract:
The research aims to investigate the reasons a practicum lecturer taught logical division paragraph with the TPACK framework, the students' response toward technologies in learning logical division paragraphs in the teaching practicum and investigate the students' results of teaching logical division paragraphs with the TPACK framework. The study used a mixed method approach. The study results the reasons a practicum lecturer applying TPACK are students' enthusiasm and students' experiences in using TPACK. A practicum lecturer applied TPACK components in teaching writing such as using as Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter as the Technology Knowledge, using process-based approach as Pedagogy Knowledge. and mastering the materials from Youtube and module. The use of technologies has positive responses from students. They argue that they like and interesting using technology while learning writing. Teaching logical division paragraph with the TPACK framework is shown from the score as the result of the material. There are 35 students who have been taught with The TPACK Framework by a practicum lecturer with scoring rubric.

Keywords: *TPACK, logical division paragraph, the practicum lecturer*

INTRODUCTION

Writing is a difficult skill as it requires things such as developing writing statements, adding supporting details, explaining topic sentences, reviewing, and revising after reviewing (Javid et al., 2013). According to Gebhard (Apsari, 2017), there are several components that must be considered such as word choices, the correct grammar, syntax, mechanics, and the ideas into coherent and cohesive paragraphs. Besides, Hartfiel, et al.(Apsari, 2017) stated that students have to master components such as punctuation and capitalization.Thus, writing has an essential role and considered as the most complicated skill in learning English.

In writing, the students have to master the basic writing especially writing essay. Logical division of ideas are the basic figures for essays (Oshima & Hogue, 2006). The subtopics are divided from topic and then discussed it every subtopic independent paragraph. They also divide into 8 proper figures of logical division, namely : reasons, causes, kinds, types, qualities, disadvantages, advantages, and methods. There are 3 keys of organizing a logical division essay (Oshima & Hogue, 2006). First, the students have to divide topic into subtopic and discuss every subtopic independently. Second, create a thesis statement that points out the logical division. Third, utilize transitions between paragraph. As a result, logical division of ideas should be taught painstakingly and use the well methods and media.

Learning writing requires learning method that makes students easier since Technology and information have the main role in the whole life and people's lives depend on technology especially in education. The 21st century is marked by increasingly sophisticated information, communication, and technology (ICT) (Yuni et al., 2016). According to Suryadi (2015) the role information technology on human activity nowadays is very influential. Nowadays the era names industry revolution 4.0 which is signed by the technology directing the whole life aspects to digital technology. There is an increase in the creation of technology at this time, all parties in the world of

education must be able to balance and keep abreast of technological advances as well (Maritsa et al., 2021). The benefits of information, communication, and technology for teachers and students are explained by Hofer (2015). He stated that it is able to increase the concentration, attention, motivation, and independence of students. Besides, teachers are able to reduce the time of explaining material, creating fun learning, and improving the knowledge about computers.

Technological, Pedagogical, and Content Knowledge (TPACK) means knowledge of the importance of integration between technology and pedagogy in content development in education. Hofer (2015) stated that the TPACK framework provides a framework for thinking about educational technology and the problems associated with its efficient integration into classroom instruction. It is also defined as the ability which is required by the teachers for using technology. The ability of using technology is going to be applied in teaching activities. TPACK has the main components of teachers' knowledge. According to Mishra & Koehler (2008) there are 3 main components of teachers' knowledge for TPACK. They are technology, pedagogy, and content knowledge. Teachers must understand the importance of technology in teaching activity. Pedagogy refers to the way teachers use technique to teach content. Knowledge refers to the understanding of making concepts difficult or easy to learn in using technology to help solving problems that students face, knowledge about prior knowledge and theories of epistemology, knowledge about how to build on existing knowledge for developing new epistemologies and strengthening old ones.

Previous studies present related research that discussed about teaching paragraph writing with the TPACK framework. The first study was conducted by Cheung & Jang (2020). They conducted the research into teachers' implementation of instructional objectives, instructional strategies, and technologies to teach writing as well as their assessment of learning using the TPACK-Writing perspective. The respondents were Five fourth-grade teachers (Teachers B, C, D, E, and F) at a local neighborhood primary school

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

in Singapore. The school developed 12 writing units following the STELLAR (Strategies for English Language Learning and Reading) program. The result of the study is that it contributes to teaching writing knowledge. First, they used the framework as Magnusson,et.al (1999) to measure the differences in the purposes of teaching implementation, instructional strategies, the use of instructional technologies, and the assessment used by five writing teachers. It shows that there are dynamical relationships between Content Knowledge, Technology Knowledge, and Pedagogy Content Knowledge. The learning is supposed to be student centered which shows teachers have to know about the students need and instructional context that build up efficient pedagogy. In the previous study, the researchers investigated the implementation of instructional objectives, instructional strategies, and technologies to teach writing as well as their assessment of learning using the TPACK-Writing perspective. Moreover, there is no specification which kind of writing is conducted. It means that they conducted research for all kinds of writing.

The second study was conducted by Sundari et al., (2021). They conducted the research on EFL writing teachers' confidence, including their perceptions, in response to emergency remote teaching during Covid-19 pandemic as an initial survey. The respondents were twenty-two teachers who teach academic writing courses from nine universities in Indonesia. The result of the study shows that the teachers are relatively confident. The study indicates they understand their ability in managing online EFL academic writing courses at university level. On the other hand, the level is decreasing while integrating into the courses. TCK and TPK got the lowest score from all fields. The differences between the previous study and the present study are the aspect of being researched and the method. In the previous study, the researchers wanted to know the teachers' confidence in online teaching in order to Covid 19 by using TPACK. In this study, the researcher investigated teaching logical division paragraph with the TPACK framework.

The last previous study was conducted by Aniq et al., (2021). They conducted the research on the reflection that is appropriate technology

integration and proper teaching strategy that support teaching writing during the Covid- 19 pandemic era. The respondents were three EFL teachers. They are selected by purposive sampling. The result of the study is that it provides new perspectives of teaching writing with right pedagogy through many kinds of technologies during pandemic. The first is the use of smartphones and computers as the teaching writing that is affected by teachers' alternatives for some applications. Second, applying pedagogy student-oriented with smartphones. The last is showing simultaneous consideration to point up curriculum transmission.

The previous studies mostly investigate the perspectives of TPACK in teaching writing. Cheung and Jang (2020) investigated TPACK for implementation of instructional objectives, instructional strategies, and technologies to teach writing as well as their assessment of learning using the TPACK-Writing perspective. Sundari et al., (2021) investigated EFL writing teachers' confidence, including their perceptions, in response to emergency remote teaching during Covid-19 pandemic as an initial survey, and investigated the reflection that is appropriate technology integration and proper teaching strategy that support teaching writing during the Covid- 19 pandemic era.

The differences between the previous studies and the present study are the topic and the subjects of the study. The previous studies have never conducted into the specific writing topic with the TPACK framework. The previous study conducts into the specific writing topic entitled "The Logical Division of Ideas" applies Technology, Pedagogy, and Content Knowledge that used by the present researcher. Furthermore, the subjects of the study are a post graduate student as the practicum lecturer and 35 students in Intensive Course Offering C Universitas Negeri Malang 2022.

Theoretically, this research supports teaching logical division paragraph with the TPACK framework. Practically, this research is able to contribute to the other teachers who are going to utilize the technologies as TPACK in their teaching writing. This research also can contribute to the teachers as

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

a reference. TPACK is able to help the teachers find another application as a teaching tool which is really helpful for them. It is expected to increase the tools of teaching paragraph writing that is effective and creative on the result. Based on the result of this research, the teacher can apply TPACK as a teaching tool. The last is this research is able to help further researchers who are interested in conducting research about TPACK in teaching writing.

METHOD

Teaching writing logical division paragraphs was done by postgraduate student. It has been held for a semester in English Language Education Intensive Course Class 2022. The students were in the first semester. A practical lecturer applied several technologies as the applications of TPACK in teaching logical division paragraphs such as Google Classroom, Padlet, StoryBird, Canva, and Kahoot.

The research method that was used in this study was a mixed approach. Mixed method is a type of research from two different research methods combined includes both quantitative and qualitative research (Indrawan & Jalilah, 2021). The mixed method approach used was side-by-side approach that the researcher started discussing qualitative findings and compare to quantitative findings.

The subjects of the research were 1 postgraduate student as the practicum and 35 students in Intensive Course Offering C Universitas Negeri Malang 2022. There are 8 male students and 27 female students Intensive Course Offering C Universitas Negeri Malang 2022. The researcher investigated teaching logical division paragraph with the TPACK framework was interesting. The present study investigated teaching logical division paragraph with the TPACK framework by a postgraduate student as the practicum lecturer was different from other studies since the subjects are a postgraduate student as the practicum lecturer and the Intensive Course students who learnt logical division paragraph. Besides, the focus of this research was specifically into logical division paragraph in writing since

logical division has 4 subtopics and requires teaching and learning in a few meeting.

Instruments

The researcher utilized four instruments. The first instrument was observation. Participatory observation was done by researcher who has an active role and are involved in any process of activity that is being carried out by that person observed as a source of research data (Alaslan, 2021). Participatory observation was chosen in which the researcher took an action into activities of participants. The researcher was in the class where the observation was conducted. The researcher was conducting the observation into an observation sheet and a documentation. The TPACK framework was observed by the researcher observed as a participant observer in teaching logical division paragraph that were used by practicum lecturer and the way how technologies were used and applied in writing class. The technologies were utilized in writing class observed through documentations.

The researcher used structured interview This was held by both a researcher and the practicum lecturer. The practicum lecturer was interviewed on the 14 questions that researcher listed. The interview was held through Google Meet and WhatsApp's voice note. It is the one of the interview methods that collects the respondents then let them talk between interviewer and respondents, respond to opinions and express opinions. There were 2 interviews which were conducted for the practicum lecturer and the students. For the practicum lecturer, the interview is for answering why the practicum lecturer taught the logical division paragra, how practicum teach the logical division paragraph with the TPACK framework, how the students' response taught the logical division paragraph with the technologies, and the result of teaching the logical division paragraph with the TPACK framework

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

Table 1 Blueprints of Interview for Practicum Lecturer

No.	Teacher	
	Aspects	Indicators
1.	Reason	● Kind of technologies ● Benefits of TPACK
2.	Implementation	● How to use Content Knowledge ● How to use Pedagogy Knowledge ●How to use Technology Knowledge ● How to use Pedagogy Content Knowledge ●How to use Technology Content Knowledge ●How to use Technology Pedagogy Knowledge ●How to use Technological Pedagogical Content and Knowledge.
3.	Result	The effectiveness of TPACK
4.	Interest	● Expression of interest ● The most liked technology
5.	Problems	The most TPACK's problems occurred
6.	Students' result	The result of students' learning

The questions for students are categorized into 5 questions. They are students' responses, students' feelings, like or dislike, and kinds of technologies. There were only 10 students that were being interviewed by the researcher since the other students were not willing to be interviewed. Both the researcher and 10 students were interviewing through Whatsapp's voice notes. Those aspects are going to be the answer for number 3 which is how students' responses toward teaching logical division paragraph with the TPACK framework.

Table 2 Blueprints of Interview for Students

No.	Students	
	Aspects	Indicators
1.	Students' feelings	● The interest of using TPACK ● The worth of using TPACK
2.	Like or dislike	● The reasons students like or dislike ● Students' preferences of using TPACK or paper
3.	The problems	● The problem while using it.

Questionnaire is data collection techniques in a way to send a list of questions to respondents to be filled. The questionnaire is for 35 students who are Intensive Course Offering C students. It is about the research that answers the research question number 3 about how students respond about teaching logical division paragraph with the TPACK framework paragraph by post graduate student as the practicum lecturer. The several questions were provided to be answered by the students. Besides, it used Interview to know more about students' responses since they answer specific reasons about the questions.

The questionnaire for students is valid and categorized into 3 aspects. The type of questionnaire is close-ended question. They are like or dislike, the worth of TPACK, and preference. The scales of the scores are 1,2,3,4. 1 strongly agree, 2 agree, 3 disagree, and 4 strongly disagree. The questionnaire is for answering question number 3 which is the students' responses of teaching logical division paragraph with the TPACK framework through the questionnaire.

Table 3 Blueprints of Questionnaire for Students

No.	Aspects	Indicators
1.	Feeling	● Interest ● Worth ● Like/dislike
2.	The preference	● Using technologies or other media
3.	Problem	● Problem in using technologies.

Observation was held at the first step on collecting data. Cartwright and Cartwright define observation as a process to see, observe and observe and record behavior systematically for a particular purpose (Herdiansyah, 2010). From the observation, the researcher found the number of students, the technologies used, and how the technologies work.

After the researcher did the observation. The researcher interviewed practicum lecturer and IC students. The interview was conducted Wednesday, 2nd March 2023. This was held by both a researcher and practicum lecturer.

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

the practicum lecturer was interviewed on the questions that researcher listed. The interview was held through Google Meet and WhatsApp's voice note. Furthermore, the interview for students began on 27th March 2023.

The researcher gained the students' responses to the use of TPACK in learning logical division paragraph by providing a questionnaire. (Dewanto & Nurhayati, 2015) defined that questionnaire is the collection of data and the information which are operated into the questions. The researcher needed to know the students' responses while being taught by the practicum lecturer using TPACK.

The lesson plans were made for 4 meetings. The first meeting was on meeting 16 week 8 and teaching about Logical Division of Idea: Organization. The second meeting was on meeting 17 week 9 and teaching about Logical Division of Idea: Run on and Comma Splice and Punctuation. The third meeting was on 18 week 9 and teaching about Logical Division of Idea: nouns and pronouns (Entertainment). The last meeting was on meeting 19 week 10 and teaching about Logical Division of Idea: Transitional Words (Product and Peer Review).

DATA ANALYSIS

The research used mixed method data analysis whose three phases (Creswell, 2014). First phase, the qualitative data was analyzed by coding the data. The researcher was coding the data into interview. Second phase, the quantitative data was presented in statistical results. The result of questionnaire was shown on charts and percentages. The last phase, the mixed qualitative and quantitative data by implementing side-by-side approach. The researcher started discussed qualitative findings and compare to quantitative findings.

The interview was organized by data codification. Data codification is the part that data is coded. The researcher was providing names in every data or naming of the data. Arifin (1992) by adopting the technique of Danandjaja (1994) analyzed by Murdiyanto (2020). This technique does not

include elements researcher (as interviewer). However, it is directly from the results of the interview stated in the sentence formulation. The researcher's question is considered as the researcher's autobiography field. Questions are able to be the codes.

Table 4 Data Codification of Interview for Lecturer

Lecturer (Ll)			
Code	Aspects	Code	Indicators
Q1	Reason	Q1.1 Q1.2 Q1.3	● Kind of technologies ● Benefits of TPACK ● Problem in teaching with the TPACK framework
Q2	Implementation	Q2.1 Q2.2 Q2.3 Q2.4 Q2.5 Q2.6 Q2.7	● How to teach with Content Knowledge ● How to teach with Pedagogy Knowledge ● How to teach with Technology Knowledge ● How to teach with Pedagogy Content Knowledge ● How to teach with Technology Content Knowledge ● How to teach with Technology Pedagogy Knowledge ● How to teach with Technological Pedagogical Content and Knowledge.
Q3	Result	Q3.1 Q3.2	● The result of teaching ● Opinion about TPACK

Table 5 Data Codification of Interview for Students

Students (St)			
Code	Aspects	Code	Indicators
Q4	Students' feeling	Q4.1 Q4.2 Q4.3	● Students' interest in using technologies ● The worth of using technologies in learning ● Like or dislike using technologies
Q5	Preference	Q5.1	● Students' preferences of using technologies or other media.
Q6	The problems	Q6.1	● The problem while using technologies.

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

FINDINGS AND DISCUSSION

The reasons The Practicum Lecturer Taught Logical Division Paragraph with The TPACK Framework

TPACK was implemented in teaching logical division paragraph by the practicum lecturer. There are several reasons why the practicum lecturer used TPACK.

Students' enthusiasm

Teaching logical division paragraph with the TPACK framework has positive responses from students. The material required a lot of time to be learnt. They looked spirited in learning logical division paragraph by using TPACK because technologies have been used in their whole life. Thus, teaching logical division paragraph with the TPACK framework fits on their learning activities.

> *"Based on my experience while teaching, the students are more enthusiastic about learning with technology. It is because teaching logical division materials need quite a lot of time." (Q1/LL)*

The reasons for using TPACK while teaching writing are supported by Aniq, et,al (2021) mentioned that using technologies are profitable for both students and teachers. They said the students were enthusiastic about learning, identifying, and writing the text while using technology.

Students' experiences

Practicum lecturer expected that the students have experiences of using TPACK in learning logical division paragraph. It can be new thing for students in learning activities because of applicating TPACK. Moreover, the material about logical division paragraph needs a lot of time that the practicum lecturer decided to create the interesting learning activities.

> *"I need the students to have a lot of learning experiences and not make students bored while learning." (Q1/LL)*

Technologies used by the practicum lecturer are Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. The practicum lecturer said that those helped her well in assessing students scores while learning

logical division. The scores are automatically shown after using those kinds of technologies. Elmahdi et al., (2018) concluded that Plickers as a technology based tool enhanced formative assessment and improved students' learning. Besides, the practicum lecturer was able to maintain students' track records of what they have done while learning logical division, Google Classroom, for instance. However, there are problems while teaching logical division paragraph through TPACK. Technical problems have occurred while teaching logical division through TPACK. For instance, the projector did not work properly and the laptop had problems. The problems with the laptop were difficulty connecting to the projector and the laptop battery running out.

The Implementation of Teaching Logical Division Paragraph with TPACK Framework

The meetings were held on 4 meetings which were meeting 16 week 8, meeting 17 week 9, meeting 18 week 10, and meeting 19 week 11 by the practicum lecturer. In the meetings, the practicum lecturer was teaching about logical division of ideas (organization) in meeting 16, Logical Division of Idea: Run on and Comma Splice and Punctuation in meeting 17, Logical Division of Idea: nouns and pronouns (Entertainment) in meeting 18, and Logical Division of Idea: Transitional Words (Product and Peer Review) in meeting 19. The implementations of TPACK in this meeting were seen from the lesson plans and how the practicum lecturer applied some components of TPACK while teaching.

Table 6 The TPACK Framework in Lesson Plane

Meetings	Subtopics	Technology	Pedagogy	Content
1	Organization	Sipejar, Google Classroom, Whatsapp, YouTube, Padlet	Process-based approach	Oshima, A. & Hogue and Learn English with EnglishClass101. com Channel

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

2	Run on and Comma Splice and Punctuation	Sipejar, Google Classroom, Whatsapp, Padlet, Kahoot.	Process-based approach	Oshima, A. & Hogue and Kaufman, L & Stern, The Blue Book of Grammar and Punctuation eleventh edition
3	Nouns and Pronouns	Sipejar, Google Classroom, Whatsapp, Padlet, Mentimeter.	Process-based approach	Oshima, A. & Hogue and website https:// www.mic.com/ articles/8201/3-reasons-why-we-love-the-avengers
4	Transitional Words	Sipejar, Google Classroom, Whatsapp, Wheels, Padlet, and Canva.	Process-based approach	Oshima, A. & Hogue and shering 4 teachers youtube channel

The practicum lecturer used 2 or more technologies and platforms in the lesson plan. For instance, the practicum lecturer used Mentimeter and Canva in pre-teaching. Canva was chosen over PowerPoint since Canva has a great visual depending on this era. The students nowadays prefer something that is aesthetic. Canva was used while the practicum lecturer created the questions to brainstorm the core material of the logical division paragraph. Rezkyana & Agustini (2022) supports that the use of Canva is helpful since it is able to improve students' critical thinking and creativity in writing. Moreover, Canva has an editable template that can help students develop ideas, context, and structure of writing. The learning is individual, in which students have to work individually. The practicum lecturer utilized Google Classroom to attach all the material and handbook in while teaching. A post teaching used quizzes. There are kinds of quizzes that the practicum lecturer

used such as Quizzez and Kahoot. Other projects were creating paragraph and reviews. A review activity used Google Document as students are able to use suggestions to give feedback to each other.

Content Knowledge (CK)

Content Knowledge (CK) was while teaching by the practicum lecturer on meeting 16 week 8, meeting 17 week 9, meeting 18 week 10, and meeting 19 week 11. Before teaching the logical division paragraph, the practicum lecturer prepared the material by reading the module and browsing from Youtube as the learning sources to get the points of the logical division paragraph material.Besides, Content Knowledge (CK) helps the practicum lecturer to answer the possible questions that were going to be asked by the students. As a result, the material about logical division paragraph was well-prepared since the practicum lecturer mastered the material as a content knowledge.

Pedagogy Knowledge (PK)

Pedagogy Knowledge (PK) was able to be seen while a pre-teaching moved to while teaching by a practicum lecturer and designed the lesson plan. The meetings were held on meeting 16 week 8, meeting 17 week 9, meeting 18 week 10, and meeting 19 week 11 using Process-based approach and using Group Discussion and Presentation techniques. Tribble Kartawijaya (2018) explained that process Approach is an approach that emphasizes the cycle of writing activities guiding learners from generating ideas and collecting data to complete the text. The reason a practicum lecturer applied that learning method was because a practicum lecturer used students center learning which means learning process that is centered on students. Learning activities nowadays are not recommended for teacher centered learning. As a result, students are more active in the learning process.

Technology Knowledge (TK)

The practicum lecturer utilized Technology Knowledge (TK) with understanding the features of technologies and platform before using these

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

in learning practicum. A practicum lecturer has to understand the kinds of technologies, the features, and the characters of technologies that have been used while learning logical division paragraph. The first meeting was using Sipejar, Google Classroom, Whatsapp, YouTube, and Padlet while teaching Logical Division of Idea: Organization. The second meeting was using Sipejar, Google Classroom, Whatsapp, Padlet, Kahoot while teaching Logical Division of Idea: Run on and Comma Splice and Punctuation. The third meeting was using Sipejar, Google Classroom, Whatsapp, Padlet, mentimeter while teaching Logical Division of Idea: nouns and pronouns (Entertainment). The fourth meeting was using Sipejar, Google Classroom, Whatsapp, wheels, padlet, and Canva while teaching Logical Division of Idea: Transitional Words (Product and Peer Review). Technology Knowledge (TK) is also for fixing the problem and helping students while using technologies and platforms. Thus, a practicum lecturer can fix the students' problems while using technologies in learning logical division paragraph.

Pedagogy Content Knowledge (PCK)

Pedagogy Content Knowledge (PCK) is about integrating pedagogy and content components. On 4 meetings which were held on meeting 16 week 8, meeting 17 week 9, meeting 18 week 10, the practicum lecturer used group discussion and peer assessment. Before teaching, a practicum lecturer created the lesson plan in every meeting. It contains a topic, specific instructional objective,learning objectives, approach and technique, learning activities, media and sources, and assessment. Besides, a practicum lecturer assessed the students' scores by using scoring rubic on 1st and 4th meeting. The aspects that have been assessed were the understanding of logical division paragraph, the quizzes, and the participation in learning activities. Other activities that have been assessed through the rubric were peer review and final product. However, there was no curriculum applied while teaching a logical division paragraph since a practicum lecturer was in a practicum activities. The understanding of the material was able to be known by a practicum lecturer through how students write paragraphs, and how the

students applied language features of logical division paragraph.

Technology Content Knowledge (TCK)

Technology Content Knowledge (TCK) is about to integrate the technologies and content knowledge. The practicum lecturer has decided which technologies were suitable for understanding of the students about the material. For technology knowledge, the practicum lecturer has to know how the technologies work before the technologies are used while teaching and learning. The technology knowledge s also for helping students using technology while learning. The content knowledge was done by a practicum lecturer. Besides, how a practicum lecturer applied Content Knowledge (CK) was reading the module and getting to know more about the materials through the Internet before teaching. There were 4 meetings which mean there were also 4 the topic of materials about a logical division paragraph, namely : Logical division of ideas (organization), Logical Division of Idea: Run on and Comma Splice and Punctuation, Logical Division of Idea: nouns and pronouns (Entertainment), and Logical Division of Idea: Transitional Words (Product and Peer Review).

At the first meeting, a practicum lecturer applied Technology Content Knowledge (TCK) by using Sipejar and Google Classroom to provide the topic of material about Logical Division of ideas in whilst activity. Sipejar is the application that college students in University of Malang use for accessing the material easily. After asking students to access the material through Sipejar, a practicum lecturer asked the students to read it. On the post test, the students were asked to write a paragraph explaining their own reason for choosing the English department program as their major in Padlet. After writing on Padlet, the students submitted their works on Google Classroom.

At the second meeting, the topic of material was about Logical Division of Idea: Run on and Comma Splice and Punctuation. By using Canva, a practicum lecturer explained pictures about punctuation to the students in pre-activity. The presentation looks interesting since Canva provides many features that the students were happy to learn. A practicum lecturer asked

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

the students about the importance of punctuation based on the picture. After explaining, the students were divided into several groups and given a quiz about punctuation and Run-Ons and Comma Splice on Kahoot in whilst activity. The use of Kahoot was exciting as the students were more enthusiasm in doing exercise. On post activity, a practicum lecturer asked the students to do peer review of students' previous work on the Padlet. Padlet provides the wall that makes students interesting in writing paragraph. Moreover, Padlet is not only for writing the paragraph, but also able to attach other files such as video, pictures, and link.

At the third meeting, a practicum lecturer taught the topic of material about the Logical Division of Idea: nouns and pronouns (Entertainment). A practicum lecturer showed a movie to students. After showing a movie, students were asked to fill the survey to know students' opinions about the movie through Mentimeter in pre activity. On post activity, a practicum lecturer asked the students to write the paragraph about movie review and upload it on Padlet. Moreover, the students were given homework to write a full paragraph from their outline on the Google Classroom.

The last meeting was the fourth meeting. The topic of material was Logical Division of Idea: Transitional Words (Product and Peer Review). A practicum lecturer showed two examples of a paragraph by using Canva on pre-activity. First paragraph is a paragraph without transitional words, and the second paragraph with transitional words. On whilst-activity, students needed to check their work about 'movie review' from previous meetings to make sure that they had already used transitional words or not through Google Classroom. The students were divided into several groups by using Wheels to do a peer review in post-activity. After doing a peer review, a practicum lecturer asked the students to upload their revised version after they get their friend's feedback to the new Padlet.

Technology Pedagogy Knowledge (TPK)

The technologies that support the teaching strategy is Pedagogy Knowledge (TPK). The practicum lecturer had been helped while using

technologies since Canva supports the presentation technique in teaching a logical division paragraph. Besides, the students independently write the paragraph as process-based approach by using Padlet and Google Classroom. However, the weaknesses of using technologies are there are autocorrect in the Google Document, Microsoft Word, and Grammarly. The practicum lecturer was sometimes unable to make sure that the paragraphs had been written with the correct grammar and spelling by themselves or not.

Technology, Pedagogy, and Content Knowledge (TPACK)

The use of Google Classroom by a practicum lecturer was one of the implementations of Technology, Pedagogy, and Content Knowledge (TPACK) by a practicum lecturer. The suitable technologies for teaching and learning the logical division paragraph are Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. Google Classroom supports coordinating the class' activities. Before demonstrating the technology used, a practicum lecturer has to master it. A practicum lecturer has to know how to operate the technology and choose the technology that fits the material. Aniq, et.al (2021) argued that the newness of technological knowledge such as how to operate software and hardware was interesting for teachers and made them curious while teaching writing. The students were able to access the material, to know the next material that was going to be learnt, and the material that had been learnt previously through Google Classroom.

The material was prepared by a practicum lecturer with learning it first from sources before teaching. It is related to Aniq, et.al (2021) that Content Knowledge (CK) is a strong foundation in teaching writing. As teacher, a practicum lecturer must master the skill and knowledge. A practicum lecturer also used Process-based approach and using Group Discussion and Presentation techniques. According to the result of)Setyowati et al., (2020) that process-based approach helps to minimize the students' writing errors. The reason why a practicum lecturer used Group Discussion while using technologies was because of the user limitation. The use of technologies considered to help students improve their writing skills since there are features

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

that are able to minimize elementary errors in writing. The other technologies used as complimentary like Kahoot helped students in motivating and not make them bored while doing the quizzes.

Students Responses toward using technologies in learning Logical Division Paragraphs

The students have the positive responses towards the interest of using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. They were using those platforms while learning the logical division paragraph. They have different opinions about the interest of using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. They believed that Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter are exciting since those media make them easy to learn, make them easy to understand, those media were exciting as those make variative learning activities, and the utilization of technologies since this era is the digital era.

> *"I am interested in using those technologies because they make it easy to learn and we do not need more paper. We just need to bring our smartphones or laptop." (Q4.1/NE/NT/Nn/)*

> *"I am interested in using those technologies because they can make the students easily understand the material." (Q4.1/Ds/Al)*

> *"The technologies motivate us to learn to write paragraph and give spirit." (Q4.1/Sy/D)*
> *"I am interested in using those technologies because they make the variative learning activities." (Q4.1/S/R)*

> *"I am interested in using those technologies because technologies are involved in our whole life activities especially in learning." (Q4.1/ AS).*

The reasons why Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter are worth using were argued by some students through the interview. It is worth it that those media provide many features that make the students easy to learn the logical division paragraph and can

be accessed freely the students are able to get the feedback immediately, provide inspiration in writing, and the use of those media are worth it since learning uses technologies as the media.

> *"Those media are worth it to use since they make us easier to access and free."(Q4.2/NE/AS/D/NT/D/Nn/Al)*
>
> *"Worth to use as those media are able to provide feedback immediately." (Q4.2/S)*
>
> *"It is worth it since those media provide inspiration in writing."(Q4.2/R)*
>
> *"The media was worth it to use since learning needs technology." (Q4.2/Sy)*

Some students argued the reason why they like using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. The use of those media did not make the students bored while learning the logical division paragraph and made them easy to do and access their tasks. almost all the learnings use technologies, support interactive learning and they have exciting visuals and features, and provide the quick assessment thus after doing the tasks through those media.

> *"I like using the media because it is easy to do and access the tasks. Also, it is paperless." (Q4.3/NE/AS/D/Sy/Nn)*
>
> *"I like using the media because almost all the learning uses technologies." (Q4.3/R/NT)*
>
> *"I like using the media for learning logical division since the media supports interactive learning and have the exciting visuals and features." (Q4.3/D/S)*
>
> *"Those media provide quick assessment after doing the tasks so I like it." (Q4.3/Al).*

The preference using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter rather than using paper as the media in learning a logical division paragraph was argued by some students. The use of those media make them simple those are able to help students enhance their writing skills since those media provide autocorrect that help them from misspelled words.

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

"I prefer using those media because it is simple. We just need to bring our smartphone or laptops." (Q5.1/NE/AS/D/R/NT/D/Al/Nn)

"I prefer using those media since it is efficient and helpful in writing. It provides autocorrect so as to avoid misspelled words." (Q5.1/Sy/S).

The problem happened while using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. The main problem was the unstable wifi connection. (Coman et al., 2020). The Internet connection and bad devices are the challenges of using technology for studentsThe college provides wifi that the students can use freely. The use of wifi is sometimes unstable because of a lot of users. The students were difficult to use and access the media. However, a student never felt difficult to access the media while learning logical division paragraph. She explained that she prepared well the device and she used her own data to access the material through Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter.

"The problem that mostly happened while using the media was the connection. The wifi is sometimes so unstable that we cannot access the materials through them." (Q6.1/NE/AS/D/R/NT/D/Al/Nn/Sy)

"I never got the problem maybe because my connection and my device were very well." (Q6.1/S)

Do you like learning logical division paragraph by using technologies?

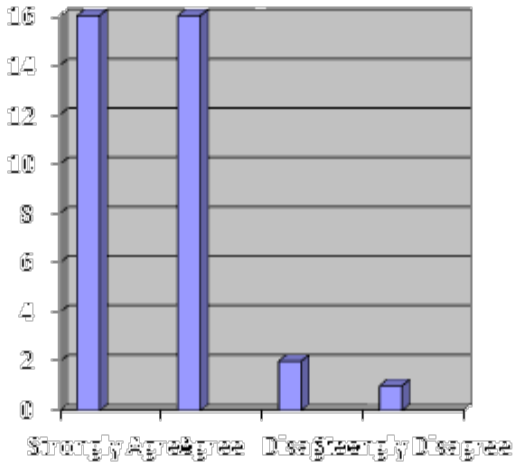

Chart 1. Chart of The Students's Preference Using Technologies

The researcher gets the information from the questionnaire that students have filled about the like using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. There are 35 students who have their own arguments in learning logical division paragraph. 16 students as 45.7% strongly agree that they like learning logical division paragraph by using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. Besides, 16 students as 45.7% agree that they like learning logical division paragraph by using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. However, 2 students as 5.7% disagree that they like learning logical division paragraph by using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. A student as 2.9% strongly disagrees with the statement that they like learning logical division paragraph by using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter.

I enjoy learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter

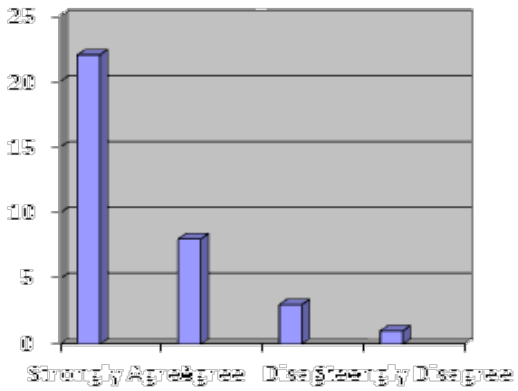

Chart 2. Chart of the Students's Enjoyment Using Technologies

The enjoyment of learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is proved by 22 students as 62.9%. They strongly agree with the statement that they enjoy learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. 8 students as 22.9% agree with the statement that they enjoy learning logical division paragraph using

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. However, there are 3 students who disagree with the statement that they enjoy learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. Moreover, there are 2 students as 5.7% strongly disagree with the statement that they enjoy learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter.

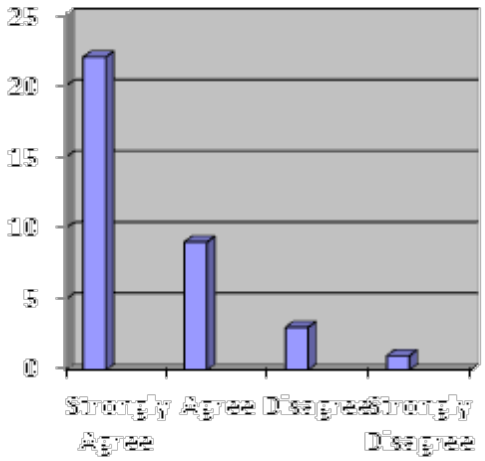

Chart 3. Chart of The Students's Interest Using Technologies

The interest of learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is proved by 22 students as 62.9%. They strongly agree with the statement that they like in learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. There are 9 students as 25.7% agree with the statement that they are interested in learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. However, 3 students as 8.6% disagree the statement that they are interested in learning logical division paragraph using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. Besides, there is only a student as 2.9% strongly disagree with the statement that they are interested in learning logical division paragraph using Google Classroom, Padlet,

Storybird, Kahoot, Canva, and Mentimeter.

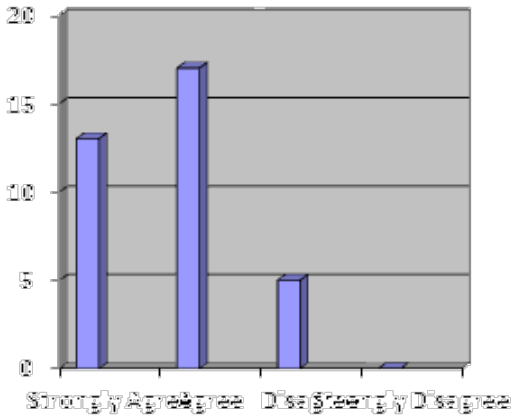

Chart 4. Chart of The Students's Opinions

There are 13 students as 37.1% strongly agree that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is better than using other media. 17 students as 48.6% agree that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is better than using other media. However, there are 5 students as 14.3% disagree that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is better than using other media.

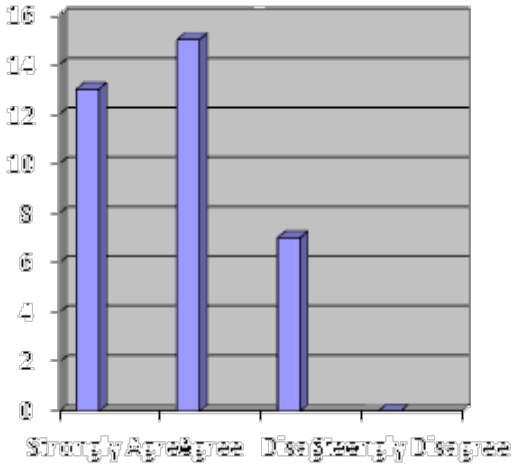

Chart 5. Chart of the Student's Technology Knowledge

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

The knowledge of operating Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical paragraph is proved by 11 students as 31.4%. They strongly agree with the statement that they know how to operate Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical paragraph. There are also 16 students as 45.7% agree with the statement that they know how to operate Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical paragraph. On the other hand, 6 students as 17.1% disagree with the statement that they know how to operate Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical paragraph. Moreover, 2 students strongly disagree with the statement that they know how to operate Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical paragraph.

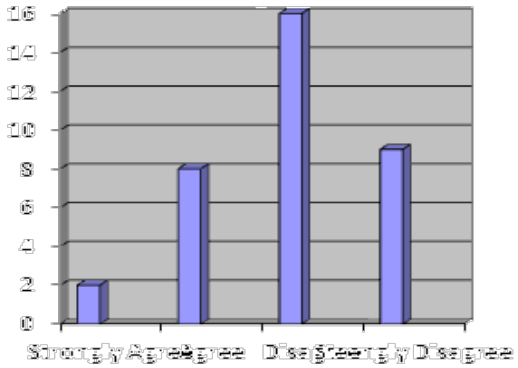

Chart 6. Chart of The Students's Preferences

There are 2 students as 5.7% who strongly agree with the statement that they prefer using paper than using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical division paragraph. Besides, there are 8 students as 22.9% agree with the statement that they prefer using paper than using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical division paragraph. However, there are 16 students who disagree with the statement that they prefer using

paper than using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical division paragraph. Besides, 9 students as 5.7% strongly disagree with the statement that they prefer using paper than using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter while learning logical division paragraph.

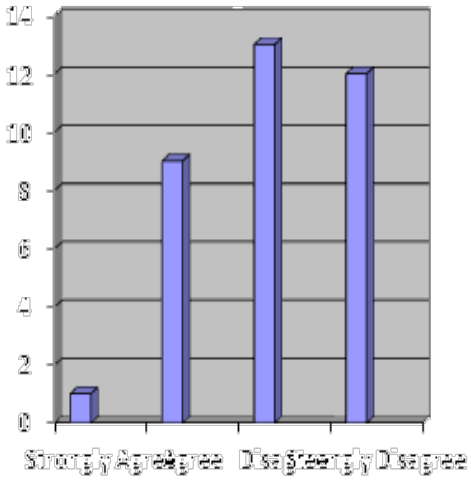

Chart 7. Chart of The Student's Confusing Using Technology

A student felt that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is confusing while learning logical division paragraph. A student as 2.9% strongly agree with the statement that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is confusing while learning logical division paragraph. 9 students 25.7% agree with the statement that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter) is confusing while learning logical division paragraph. Nevertheless, 13 students as 37.1% disagree with the statement that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter) is confusing while learning logical division paragraph. Besides, 12 students as 34.3% strongly disagree with the statement that using Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter is confusing while learning logical division paragraph.

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

Based on the result of the questionnaire and the interview for students, there are agreement and disagreements of the statements. The result shows that all the students have the positive responses toward the use of technologies while learning the logical division paragraph. The technologies used were Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter. It is supported by (Deiniatur, 2021), who proved that the use of Google Classroom in writing class has positive students' perceptions. Google Classroom really helps students as it is effective in receiving feedback from the teachers. Furthermore, it is effective since students just need to access their smartphones or computers to chat and share the writing tasks. The use of Padlet in writing is supported by Mahmud (2019) showing that the students believed that using Padlet is good in improving writing skill as a learning tool for students. The students are able to develop the idea, share, and collaborate with friends. Another technology is Storybird, which has resulted in Storybird giving advantages for students for assisting students' writing (Wulandari, 2018). The advantages are facilitating students to publish their writing, creating students' collaborative learning, increasing students' writing skill and vocabulary. Amalia et al., (2022) concluded that the use of Kahoot helps students' writing skill. Hadi et al., (2021) stated that Canva is effective in helping students' writing skill. The last technology in writing is mentimeter. The use of mentimeter is supported by (Samad & Munir (2022) who stated that Mentimeter is able to enhance students' English skills. As a result, the use of technology provides many advantages for students in writing since it creates the new learning activities that do not make the students bored.

The Result of The Use of TPACK in Teaching Logical Division Paragraph

Teaching logical division paragraph with the TPACK framework is effective since it helps students and teachers grading the task by using scoring rubric paragraph development and grading from Universitas Negeri Malang Grading System Policies and Procedures. The result of students' learning using TPACK is as follows :

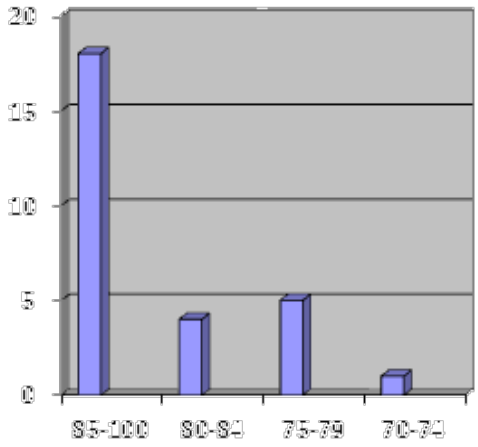

Chart 8 Students' scores in learning Logical Division Paragraph

The scores were given by the practicum lecturer. There are 35 students in Intensive Course Class Offering C who have an IC Writing course. The grades 18 students are excellent in learning logical division paragraph. They get A grade which means the students get the score 85 – 100 in learning logical division paragraph. Moreover, A- grade is addressed to 4 students by a practicum lecturer in learning logical division paragraph. Those students get A- grade which means they get 80 – 84 in learning logical division paragraph. There are 5 students who are graded by a practicum lecturer in learning logical division paragraph. They get B+ which means those students get 75 – 79. Besidese, there is a student who gets a B in learning logical division paragraph. A student who gets a B means that student gets 70 – 74. However, there are 7 students who get an E while learning a logical division paragraph. It is because they did not submit the task given by a practicum lecturer while learning a logical division paragraph.

As a result, teaching logical division paragraph with the TPACK framework is when a practicum lecturer applied TPACK, there are 28 students who get good score. It means they have passed the material of writing. However, 7 students did not submit the task that cause they did not get the scores. They automatically get E for the grade score. The average of

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173

the students score is 65,55 which grades B-.

CONCLUSION

The reasons the practicum lecturer integrate TPACK in teaching the logical division paragraph. The first reason is to explore students's experiences and students enthusiasm in learning writing. The students were excited to use media such as Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter since those media are easy to access everywhere and provide new learning activities in writing. Besides, TPACK helps a postgraduate student as a practicum lecturer in teaching logical division paragraph since the media such as Google Classroom, Padlet, Storybird, Kahoot, Canva, and Mentimeter as those support in coordinating the class' activities. The problem using the media is the unstable connection that makes both students and practicum teacher get trouble.

This study focuses on the application of TPACK in learning writing, especially on the topic of Logical Division Paragraph. There are 2 theoretically and practically implications of the research. Theoretically, the research supports in improving teachers' knowledge of teaching writing effectively with technologies. Practically, the research helps students and teachers to get the best goals of teaching and learning.

The researcher suggested that the further researcher may investigate about the students' responses specifically of TPACK application with several components such as CK, TK, TPK, TCK, and PCK. The research results the implication that the research provides significant contribution. By using TPACK, students can learn and teachers can teach logical division paragraph effective and exciting.

REFERENCES

Amalia, I., Solihat, D., & Darsih, E. (2022). The Effect of Kahoot Application in Improving Students' Wirting Skill (Quasi Experimental Design At Sman 1 Luragung). Indonesian Journal of Learning and Instruction, 5(1). https://doi.org/10.25134/ijli.v5i1.5873

Aniq, L. N., Drajati, N. A., & Fauziati, E. (2021). Unravelling Teachers' Beliefs about TPACK in Teaching Writing during the Covid-19 Pandemic. AL-ISHLAH: Jurnal Pendidikan, 13(1), 317–326. https://doi.org/10.35445/alishlah.v13i1.423

Apsari, Y. (2017). The Use of Picture Series in Teaching Writing Recount Text. https://doi.org/https://doi.org/10.22460/eltin.v5i2.p51-56

Cheung, Y. L., & Jang, H. (2020). Understanding writing teachers' technological pedagogical content knowledge: A study with five in-service teachers. Indonesian Journal of Applied Linguistics, 10(2), 551–561. https://doi.org/10.17509/ijal.v10i2.28607

Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. Sustainability, 12(24), 10367. https://doi.org/10.3390/su122410367

Creswell, J. W. (2014). Research design : qualitative, quantitative, and mixed methods approaches / John W. Creswell (4th ed.). Sage Publications.

Deiniatur, M. (2021). STUDENTS PERCEPTION ON THE USE OF GOOGLE CLASSROOM IN ESSAY WRITING CLASS. International Journal of Educational Resources. https://classroom.google.com

Dewanto, A. M., & Nurhayati, S. (2015). Pengaruh Kecerdasan Emosional dan Kecerdasan Spiritual Terhadap Sikap Etis dan Prestasi Mahasiswa Akuntansi (Studi Pada Perguruan Tinggi Di Kota Pekalongan).

Elmahdi, I., Al-Hattami, A., & Fawzi, H. (2018). Using Technology for Formative Assessment to Improve Students' Learning. In TOJET: The Turkish Online Journal of Educational Technology (Vol. 17, Issue 2).

Hadi, M. S., Izzah, L., & Paulia, Q. (2021). TEACHING WRITING THROUGH CANVA APPLICATION. Journal of Languages and

Language Teaching, 9(2), 228. https://doi.org/10.33394/jollt.v9i2.3533

Herdiansyah. (2010). Metodologi Penelitian untuk Ilmu-Ilmu Sosial Perspektif Konvensional dan Kontemporer. http://www.penerbitsalemba.com

Hofer. (2015). Practitioner Guide to Technology, Pedagogy, and Content Knowledge (TPACK): Rich Media Cases of Teacher Knowledge (Mark Hofer, Lynn Bell, & Glen Bull, Eds.). AACE, PO Box 719, Waynesville, NC 28786, USA.

Indrawan, D., & Jalilah, S. R. (2021). Metode Kombinasi/Campuran Bentuk Integrasi Dalam Penelitian. Jurnal Studi Guru Dan Pembelajaran, 4(3), 735–739. https://doi.org/10.30605/jsgp.4.3.2021.1452

Kartawijaya, S. (2018). Improving Students' Writing Skill in Writing Paragraph through an Outline Technique. Curricula, 3(3). https://doi.org/10.22216/jcc.2018.v3i3.3429

Maritsa, A., Hanifah Salsabila, U., Wafiq, M., Rahma Anindya, P., & Azhar Ma'shum, M. (2021). Pengaruh Teknologi Dalam Dunia Pendidikan. Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan, 18(2), 91–100. https://doi.org/10.46781/al-mutharahah.v18i2.303

Mishra, P., & Koehler, M. J. (2008). Introducing Technological Pedagogical Content Knowledge. https://www.researchgate.net/publication/242385653

Murdiyanto, E. (2020). Metode Penelitian Kualitatif . Lembaga Penelitian dan Pengabdian Pada Masyarakat UPN "Veteran" Yogyakarta Press.

Oshima, & Hogue. (2006). Writing Academic English Fourth Edition (Fourth Edition). Pearson Longman.

Rezkyana, D., & Agustini, S. (2022). The Use of Canva in Teaching Writing. Proceedings Series on Physical & Formal Sciences, 3, 71–74. https://doi.org/10.30595/pspfs.v3i.267

Samad, P., & Munir, F. S. (2022). The Utilizing of Mentimeter Platform in Enhancing the EFL Students' English Skills in Digital Era. Edumaspul: Jurnal Pendidikan, 6(2), 1645–1650. https://doi.org/10.33487/edumaspul.v6i2.4380

Setyowati, L., Sukmawan, S., Ahsana El-Sulukiyyah, A., Ayu Lestari, P., Mabaroh, B., PGRI Wiranegara, U., & Brawijaya, U. (2020). Solving

The Students' Errors During Their Learning of Essay Writing in a Hybird Setting.

Sundari, H., Amin, F. M., & Syamsiah, N. (2021). Exploring EFL Writing Teacher Confidence as A Response to Emergency Remote Teaching: A Preliminary Survey using TPACK Framework. 7(2). https://doi.org/10.31332/lk

Suryadi, S. (2015). Peranan Perkembangan Teknologi Informasi dan Komunikasi dalam Kegiatan Pembelajaran dan Perkembangan Dunia Pendidikan. https://doi.org/https://doi.org/10.36987/informatika.v3i3.219

Wulandari, R. (2018). English Language Education Department of a Private University Students' Perception on Using Padlet in Improving Writing Skills.

Yuni, E., Dwi, W. ;, Sudjimat, A., & Nyoto, A. (2016). Transformasi Pendidikan Abad 21 Sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global (Vol. 1).

Zaidi Mahmud, M. (2019). Students' Perceptions of Using Padlet as a Learning Tool for English Writing. In Journal of Creative Practices in Language Learning and Teaching (CPLT) (Vol. 7, Issue 2). http://Padlet.com

DOI: dx.doi.org/10.21274/ls.2024.16.1.141-173