

**SENIOR SECONDARY HIGH SCHOOL ENGLISH
TEACHERS' COMPETENCE IN IMPLEMENTING
TECHNOLOGICAL PEDAGOGICAL AND CONTENT
KNOWLEDGE (TPACK) IN TEACHING ENGLISH AT
BANJARNEGARA REGENCY**



THESIS

**Submitted to the Faculty of Tarbiya and Teacher Training
of State Islamic University Prof. K.H. Saifuddin Zuhri Purwokerto
as a Partial Fulfillment of the Requirements for Achieving
the Bachelor Degree in English Education (S.Pd.)**

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2023

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Declare that this Thesis Manuscript is entirely my own research outcome or work, except in given parts which are cited the sources.

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APPROVAL SHEET

This thesis, entitled:
**SENIOR SECONDARY HIGH SCHOOL ENGLISH TEACHERS' COMPETENCE IN
IMPLEMENTING TPACK IN TEACHING ENGLISH
AT BANJARNEGARA REGENCY**

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Assalamu'alaikum Warahmatullahi Wabarakatuh.

Having guided, analyzed, directed, and corrected the thesis by Eriska Neti Lumintasari. Student Number 1917404099, Education Department, Study Program English Education, Faculty of Tarbiyah and Teacher Training, entitled:

BANJARNEGARA HIGH SCHOOL ENGLISH TEACHERS' CAPABILITY IN THE IMPLEMENTATION OF TPACK IN TEACHING ENGLISH

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Wassalamu'alaikum Warahmatullahi Wabarakatuh.

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MOTTO

“If you Tired, Rest! But, Don’t Quit”



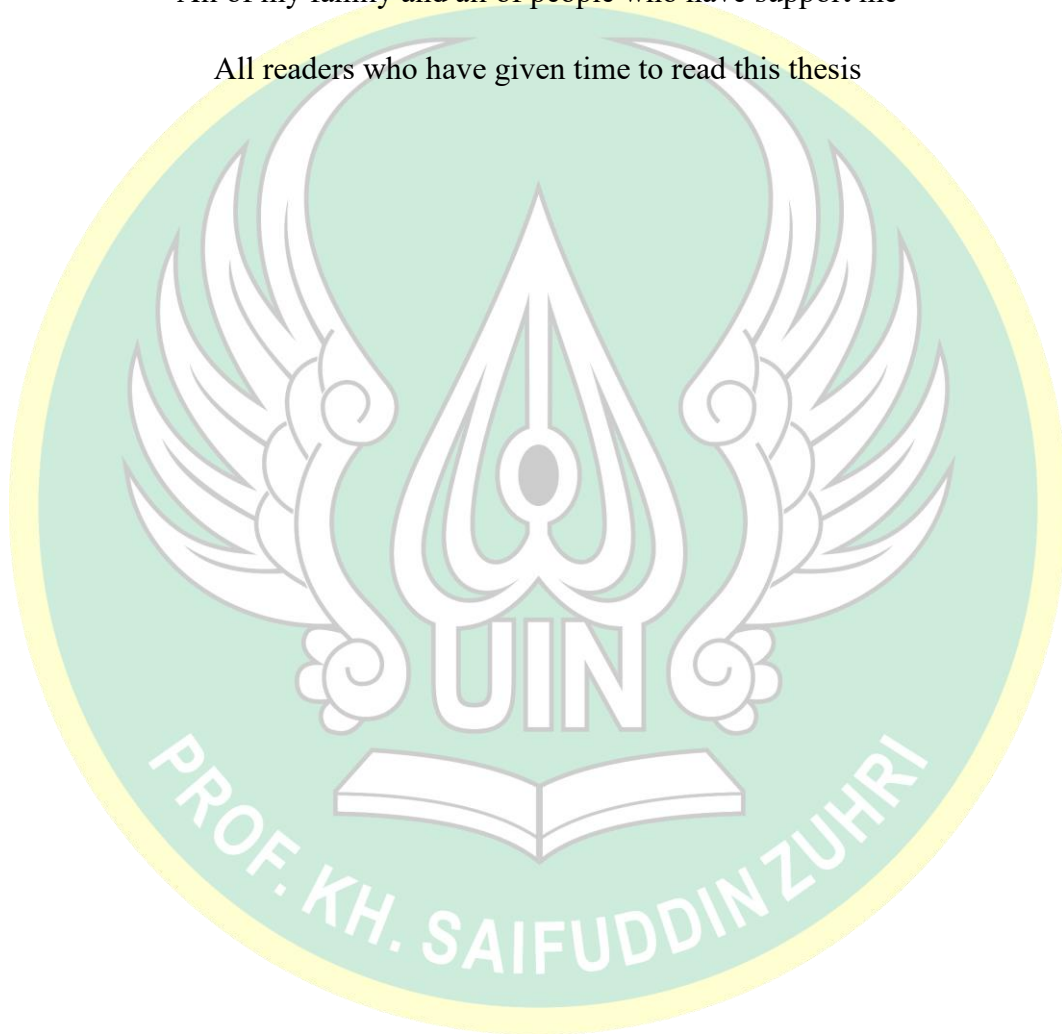
DEDICATION

I dedicate my thesis for:

My precious parents, Wahudi and Nurwati, who always support, motivate, and pray for me through the journey until I finish my study

All of my family and all of people who have support me

All readers who have given time to read this thesis



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It is precious thing that the researcher finally accomplished my thesis entitled ***“Senior Secondary High School English Teachers’ Competence in Implementing Technological Pedagogical and Content Knowledge (TPACK) in Teaching English at Banjarnegara Regency”***. it is presented to the faculty of Tarbiya and Teacher Training, in partial fulfilment of the requirements for the Bachelor Degree in English Education (S. Pd).

This is the thesis that has been proposed to the Faculty of Education and Teacher Training., State Islamic University of Prof. K. H. Saifuddin Zuhri Purwokerto as partial fulfillment of the requirement for obtaining the Scholar Degree of Education (S. Pd). In the process of completing the thesis, many parties have provided help, support, and suggestion that are useful for the completion of the thesis. The deep gratitude and appreciation are expressed to:

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Purwokerto, 5 October 2023


Eriska Neti Lumintasari

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SENIOR SECONDARY HIGH SCHOOL ENGLISH TEACHERS' COMPETENCE IN IMPLEMENTING TECHNOLOGICAL PEDAGOGICAL AND CONTENT KNOWLEDGE (TPACK) IN TEACHING ENGLISH AT BANJARNEGARA REGENCY

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Abstract: This study aims to find out the level of English teachers' competence at Secondary Senior High School and Vocational High School in Banjarnegara Regency on the implementation of TPACK in teaching English. The data was collected by survey using questionnaires that analyzed by using quantitative descriptive method. The data collection was based on teachers' self-assessment. To analyze the data, Pearson Product Moment Correlation and Cronbach's Alpha were used to test the validity and the reliability of the data. The participants of this study were 75 English Teachers in Banjarnegara Regency. The result showed that teachers' competence on 7th domain of TPACK were averagely in a good level category. The result from TK competence is "Good" category with 81.67%, CK competence is "Good" category with 79.53%, PK competence is "Good" category with 81.28%, PCK competence is "Good" category with 81.27%, TCK competence is "Good" category 82,13%, TPK is "Good" category with 80.35%, TPACK competence is "Good" category with 77.33%. The data result showed that teachers have a good competence in the implementing TPACK in teaching English. Whereas, since some of English teachers answered strongly disagree and disagree, it is highly important to acknowledge that teachers know their own competence. Thus, it is important for teachers to have technological and pedagogical training, take part in government program or any related field program, and learn to maximize the use of TPACK in the classroom

Keywords: TPACK, Competence, EFL Classroom.

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CHAPTER I

INTRODUCTION

A. Background of the Problem

In this era of industry 4.0, rapid development of technology become tremendously cannot be expected, especially in educational field, that teachers should take part in education to become more innovative and effective in teaching English. Considering that majority researchers admit that technology is a crucial element in teaching English.¹ Therefore, teachers should establish technology with other competences of pedagogical and content knowledge.² The enhancement of technology in education brings teachers to the precious innovation of ICT (Information Communication and Content Knowledge)³ and create effective learning process to assist students in learning English.⁴ As a conclusion, teachers should gather pedagogy and content knowledge with technological knowledge (TPACK), so that they can improve their ability to face challenges that might be happen in the future.

TPACK (Technological Pedagogical and Content Knowledge) is a utilization of combining technology, content, and pedagogical knowledge in teaching English. Technological knowledge in this period of time is been significantly influencing education as teachers should deliver technology into the curriculum or teachers teaching performance by combining it with

¹Matthew J. Koehler, Punya Mishra, & Kurnia Yahya. "Traching the Development of Teacher Knowledge in a Design Seminar: Integrating Content, Pedagogy and Technology". *Computer & Education* 49. 740-762. (2007). (doi:10.1016/j.compedu.2005.11.012).

Nicolas Guichon & Mirjam Hauck. "Editorial: Teacher Education Research in CALL and CMC: More in Demand Than Ever". *European Association for Computer Assisted Language Learning*. 23(3): 187-199. (2011). (doi:10.1017/S0958344011000139).

²I. Irwanto, I. W. Redhana., & B. Wahono. "Examining Perception of Technological Pedagogical Content Knowledge (TPACK): A Perspective from Indonesian Pre-Service Teachers". *Jurnal Pendidikan IPA Indonesia*. 11(1) (2022): 142-154. (DOI: 10.15294/jpii.v11i1.32366)

³ Silmi Auliyah. "Teachers' Perspective on the Implementation of Information and Communication Technology (ICT) in English Language Teaching. (2022). *Thesis*.

⁴ Ann Hume, Rebecca Cooper, & Andreas Borrowski. "Repositioning Pedagogical Content Knowledge in Teachers' Knoeledge in Teachers' Knowledge for Teaching Science". *Spinger Nature Singapore*. (2019). (<https://doi.org/10.1007/978-981-13-5898-2>).

content and pedagogical knowledge.⁵ Thus, teachers should know how to take benefits from the advancement of educational tools to explore contents/materials, classroom management, and students' encouragement in the classroom to fulfil students learning requirements.⁶ Besides, the important of TPACK is not only because of context in it, yet TPACK plays a big role in determining teachers' professionalism.⁷ The successful integration of TPACK will highly determine teachers' quality in teaching English.

Students' understanding and achievement in the classroom is most likely determined by teachers' professionalism. Professional teachers in teaching English should have the ability of content development, preparing lesson design, and make innovative learning.⁸ Yet, teachers' substantial obstacle is on how they plan the lesson design to engage students' interest in the classroom⁹, where they should find a way to cover it. Moreover, teachers are not only having to understand technology, such as computer, but also in terms of ICT (Information Communication and Technology) which it is acquired in TPACK.¹⁰ A professional teacher will have great attitude for their role in increasing students learning classification.¹¹ Balancing

⁵ Davin V. Knolton. "Technological, Pedagogical, Content Knowledge (TPACK): An Exploratory Study of Adjunct Faculty Technology Proficiency". (2014)

⁶ Hamah Hasan Alhababi. "Technological Pedagogical Content Knowledge (TPACK) Effectiveness on English Teachers and Students in Saudi Arabia". *Dissertations*. (2007)

⁷ Joshua M. Rosenberg & Matthew J. Koehler. "Context and Technological Pedagogical Content Knowledge (TPACK): A Systematic Review". *Journal of Research on Technological in Education*, 47(3). (2015): 186-210. (DOI: 10.1080/15391523.2015.1052663).

⁸ Selamat Biora, Yasir Arafat, & Mulyadi Mulyadi. "The Influence of Teachers' Professional Competency and Working Discipline on Teachers' Performance at State Elementary School". *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(2). (2021): 514-524. (DOI: <https://doi.org/10.29210/021082jpgi0005>)

⁹ Joyce Hwee Ling Koh, Cing Sing Chai, Huang-Yao Hong, & Chin Chung Tsai. "A Survey to Examine Teachers' Perception of Design Dispositions, Lesson Design Practices, and Their Relationships with Technological Pedagogical Content Knowledge (TPACK)". *Asia-Pacific Journal of Teacher Education*. (2014). (<http://dx.doi.org/10.1080/1359866X.2014.941280>).

¹⁰ İshak Kozikoğlu & Nuri Babacan. "The Investigation of the Relationship Between Turkish EFL Teachers' Technological Pedagogical Content Knowledge Skills and Attitudes Towards Technology". *Journal of Language and Linguistic Studies*, 15(1). (2019): 20-33.

¹¹ Anchalee Jansem. "'Professionalism' in Second and Foreign Language Teaching: A Qualitative Research Synthesis". 11(1). (2018). (doi:10.5539/ies.v11n1p141)

classroom management and technology of ICT can make teachers competence on become greatly support students' learning process.

Teachers' competence in teaching English having a massive influence in determining students' progress and accomplishment.¹² Additionally, teacher is a special character in students' direct development¹³ considering that much of students' time in the classroom flies with their teachers. Thus, teachers should have the acknowledgment in teaching English to cover problems that in case there might be happen. For instance, in recent years, worldwide faced a pandemic covid-19 where education gained a massive effect¹⁴ and requiring teachers' competence in TPACK, especially in ICT field which be expected to enhance the learning quality.¹⁵ It was affecting teachers to have to learn ICT at the moment. Supporting students' needs by pedagogy and content acknowledgement is not enough, yet it should be followed with ICT in the learning process.

Unfortunately, technological comprehension by teachers in Indonesia is still low. It might be caused by several reason, such as lack of technological knowledge, lack of accessibility and network connection, lack of teachers' training, and lack of teachers' competency. The fact that not of all teachers have privilege to have a good technological tools and internet connection¹⁶ makes teachers do not have a chance to study about technology. Furthermore, teachers sometimes do not have a good facilitated

¹² ANSW Government Website-Education, "Enhancing Teacher Capabilities-NSW Department of Education", (<https://education.nsw.gov.au/teaching-and-learning/school-excellence-and-accountability/school-excellence-in-action/enhancing-teacher-capabilities>, accessed at 14 May 2023)

¹³ Selamat Biora, Yasir Arafat, & Mulyadi Mulyadi. "The Influence of Teachers' Professional Competency and Working Dicipine on Teachers' Performance at State Elementary School". *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(2). (2021): 514-524. (DOI: <https://doi.org/10.29210/021082jpgi0005>)

¹⁴ Mutiara Ayu, Zakiyah Farhanah Pratiwi. "The Implementation of Online Learning in English Language Teaching During Pandemic: The Teachers' Voice", *Journal of Research on Language Education (JoRLE)*, 2(2), (2021):93-99.

¹⁵ Pipit Mulyah, Dyah Aminatun, & Linda Septiyana. "Teaching in Pandemic: Teachers' Experiences During Coronavirus Outbreak", *Journal of Research on Language Education (JoRLE)*, 3(1), (2022): 1-7.

¹⁶ Carmen Sicilia. "The Challenges and Benefits to Teachers' Practices in Constructivist Learning: Environments Supported by Technology". *Thesis*. (2005).

of effective training¹⁷, so that they cannot perform ICT in teaching environment. Then, teachers lack of competency is the major obstruction of their approval and adoption of ICT¹⁸ that a lot of teachers cannot use ICT in the classroom as they do not have enthusiastic about the changes of technology.¹⁹ So that, it is a very big problem that teachers' who shared education for students cannot maximize their teaching ability.

In this research, Banjarnegara regency will be chosen as the setting for doing the research. The consideration is that according to *umm.ac.id*, number of high schools in Banjarnegara is about 44 schools²⁰, including SMA (13 schools), SMK (17 schools), and MA (14 schools). Even though the high amount of high school, Banjarnegara must have many obstacles in education. Furthermore, Banjarnegara regency is consisting of many regions and different quality of education in each region. Therefore, the role of teachers' competence on TPACK is very significant to guide students for the better understanding and achievement in education, especially in English learning process. Moreover, the preliminary research for this research was held in SMA N 1 Wanadadi. The reason to choose SMA N 1 Wanadadi is because the school have many English teachers, the school have a good infrastructure that support teaching activity, and the school have just implemented the "merdeka" curriculum into the learning process since the end of 2022. The preliminary study was held in 10 April 2023. One of the teachers was interviewed and she explained that she does not familiar with the name of TPACK, yet she understands the meaning of it. Moreover, the teacher admits that TPACK is very important in teaching English as

¹⁷ W. J. Pelgrum. "Obstacles to the Integration of ICT in Education: Results from a Worldwide Educational Assessment". *Computer & Education*, 37 (2001): 163-178.

¹⁸ Ibid & Saleh Mohammed Al-Oteawi. "Theceptions o Administrators and Teachers in Utilizing Information Technology in Instruction, Administrative Work, Technology Planning and Staff Development in Saudi Arabia". *Doctoral dissertation, Ohio University, Ohio*. (2002).

¹⁹ C. Paul Newhouse. "Literature Review: The Impact of ICT on Learning and Teaching" Perth, Western Australia: *Department of Education*. (2002).

²⁰ "Data SMA dan SMK Kab. Banjarnegara". (<https://www.umm.ac.id/id/pages/jawa-tengah/data-sma-dan-smk-kab-banjarnegara.html>, accessed at 14 May 2023)

teachers' role is not only teaching the materials but also teach students to face the enhancement of education, such as adapting technology in their learning process and make them ready for their future after graduated from the school. Then, she explains that she can operate technology in learning activities, yet she admits that her ability in technology is limited which she still needs help for some reason. Therefore, this research will find out how is the ability of teachers toward TPACK in Banjarnegara Regency to teaching English.

There are some researches related to this research, such as the research from Destiani, et al. (2022) in the research entitled "Other Discoveries Regarding TPACK of English Teachers". This study was using mixed method such as questionnaires, interviews, and observation as the instruments to collect the data. Moreover, this study was aimed to discover the impact of TPACK in teaching English to Vocational high school students in Garut. The result showed that more than 60% of participants had a high level of TPACK, than the rest of them had an adequate and low level of TPACK.²¹ The difference of this study to the research from Destriani et al is that this study found the teachers competence in TPACK, the location, also the subject that was from vocational high school and senior secondary high school. This is slightly similar with the research from, Par (2022) in the research entitled "Integrating TPACK into English Language Teaching Before and During Covid -19 Pandemic: The State of the Art", found that both before and during the Covid-19 Pandemic, indicate that having good planning and preparation of integrating technology into English language teaching significantly effects students' English skills development, active participation, positive attitude, and intrinsic motivation in learning.²² It is different with this study, which research from Par was compared teachers

²¹ Isti Destriani, Sri Setyarini, & Rojab Rodliyah. "Other Discoveries Regarding TPACK of English Teachers", *Issues in Applied Linguistics and Language Teaching*, 4(2), (2022): 125-131.

²² Leonardus Par. "Integrating TPACK into English Language Teaching Before and During Covid-19 Pandemic: The State of the Art ", *ELEJ*, 1(2), (2022): 49-71.

TPACK in before and after pandemic also students' outcome of it than this study was focused on teachers competence in TPACK. Research from Par (2022) align with research from Syifa (2021) in the research entitled "English Foreign Language Teachers Teaching Using Technological Pedagogical Content Knowledge (TPACK) in the Era of Covid 19 Pandemic (A Descriptive Qualitative Study). This research was using questionnaires and interviews to collect the data. The research found that in the learning process during Covid-19, some learning activities carried out by teachers using the TPACK component for several learning process.²³ The distinction to this study is that research from Syifa was held during Covid-19 Era and using qualitative descriptive, then this study was quantitative descriptive and was held after pandemic. Then, Nursyifa (2020) in the research entitled "TPACK Competence Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". This is a quantitative method with survey approach. The subject were preservice teachers in Civic education on group A superior to the group B which resulted teachers TPACK's capabilities need to be improved and supported by various parties to create an education that can produce future qualified teachers.²⁴ The significance distance to this study is that this study was found teachers' TPACK competence in teaching English and the subject was in-service teachers.

According the previous study above, it can be concluded that TPACK is very useful and important to acquire by teachers in teaching English. The previous studies above showed various result from low to good. Then, there was related issue to this study as TPACK is important for teachers in teaching, yet teachers still have no significantly acknowledge TPACK well in teaching. Therefore, it is important to find out teachers' competence of using TPACK in the learning process. Thus, this research

²³ Nurbani Syifa. "English Language Teachers Teaching Using Technological Pedagogical Content Knowledge (TPACK) in the Era of Covid-19 Pandemic: A Descriptive Qualitative Study". (2021).

²⁴ Aulia Nursyifa, Imam Fitri Rahmadi, & Eti Hayati. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *JPI*, 9(1), (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982).

will discover secondary high school teachers' competence of TPACK in teaching English entitled "Senior Secondary High School English Teachers' Competence in Implementing Technological Pedagogical and Content Knowledge (TPACK) In Teaching English at Banjarnegara Regency".

B. Operational Definition

1. Teachers' Competence in Teaching English

Teachers' competence in teaching is about how teachers acknowledge every single one of how to be a teacher and implementing it in teaching and learning activities. Competence defined as the characteristics of the work tasks or job outcomes.²⁵ Competence in teachers have various skills or abilities that required in their fulfillment of teaching. It is fundamentally a relationship between a person's abilities or capabilities and the successful accomplishment of acceptable activities.²⁶ Teachers' competence is significantly needed as the requirement of teaching English in order to enlarge students' potential in teaching and learning activities

2. TPACK

TPACK identified as the acknowledgment to the relationship and cooperation of pedagogical knowledge (teaching methods, styles, strategies, and procedures in teaching activity), content knowledge (materials to be taught for students), and technological knowledge (about technological utilization and ICT integration in teaching).²⁷ The of improvement TPACK make a lot of technological renewal of educational interest.²⁸ It is become very important since it guided teachers to renovate their teaching equipment.

²⁵ R Yuvaraj. "Competency Mapping- A Drive for Indian Industries". *International Journal of Scientific & Engineering Research*, 2(8), 1-7. (2011).

²⁶ Paul Hager & Andrew Gonczi. "What is competence?". *Medical Teacher*. 18(1). (2009).

²⁷ Leanna M. Archambault & Joshua H. Barnett. "Revisiting technological pedagogical content knowledge: Exploring the TPACK framework", *Computers & Education*, 55. (2010):1656-1662.

²⁸ Suzy Cox & Charles R. Graham. "Using an Elaborated Model of the TPACK Framework to Analyze and Depict Teacher Knowledge". *TechTrends*, 53(60). (2009): 60-69.

(<https://doi.org/10.1007/s11528-009-0327-1>)

To conclude, competence is a skill or ability of teachers in teaching English. It is the relationship between professional competence as a teacher and the outcome of the tasks or teaching activities. Professional teachers' competence also includes the combination of technological competence, pedagogical competence, and content competence. Those are the unite of competences that teachers should adjust their students' behavior and improve their Competence in the advancement of technology and educational measurement.

C. Research Question

According to the background of the study above, this research will find the answer of the following research question: "How is Senior Secondary High School English Teachers' Competence in Implementing Technological Pedagogical and Content Knowledge (TPACK) In Teaching English at Banjarnegara Regency?"

D. Aim and Significances of the Research

a. Aim of the Research

The aim of this research is to find Senior Secondary High School English Teachers' Competence in Implementing Technological Pedagogical and Content Knowledge (TPACK) In Teaching English at Banjarnegara Regency.

b. Significances of the Research

There are significances of this research for some parties, such as for teachers, the government, and following researches. Those as follow:

1. The Teachers
 - a. Teachers will capture more TPACK theories and can be applied in the classroom.
 - b. Teachers hopefully could find TPACK is beneficial in teaching English, as to engage students' learning active participation in the classroom, enjoyment learning environment, and easier way of teaching English.

- c. Teachers can improve their self-improvement on teaching in the classroom.
 - d. This research can be a consideration of contribution in developing teachers TPACK comprehension and the way to take more advantages of technological enhancement.
2. The Governments
- a. Governments can facilitate teachers more through technological tools or media, so that teachers can have more chance to do self-improvement.
 - b. Governments can conduct teachers training about TPACK, and how to maximize it in teaching English.
3. Following Researchers
- a. This research can be a recommendation for the other researchers who wants to investigate teachers' Competence on TPACK.
 - b. Hopefully, this research can be a reference to the other researchers in studying teachers' Competence on TPACK to the better reference in the future.

E. Structure of the Research

In order to make classification of the structure in this research, it is beneficial to make systematic research. This research is divided into five chapters, as follow:

Chapter I

In the chapter I, there explained about the introduction of the study, which consist of background of the study, operational definitions, research question, objectives and significances of the research method, and structure of the research.

Chapter II

In the chapter II, there explained about the literature review of the theories related to the Teachers Competence in Teaching English and TPACK (Technological Pedagogical and Content Knowledge). It includes

the Teachers' Competence in Teaching English, Teachers' Difficulties in Teaching English, and The Concept of TPACK.

Chapter III

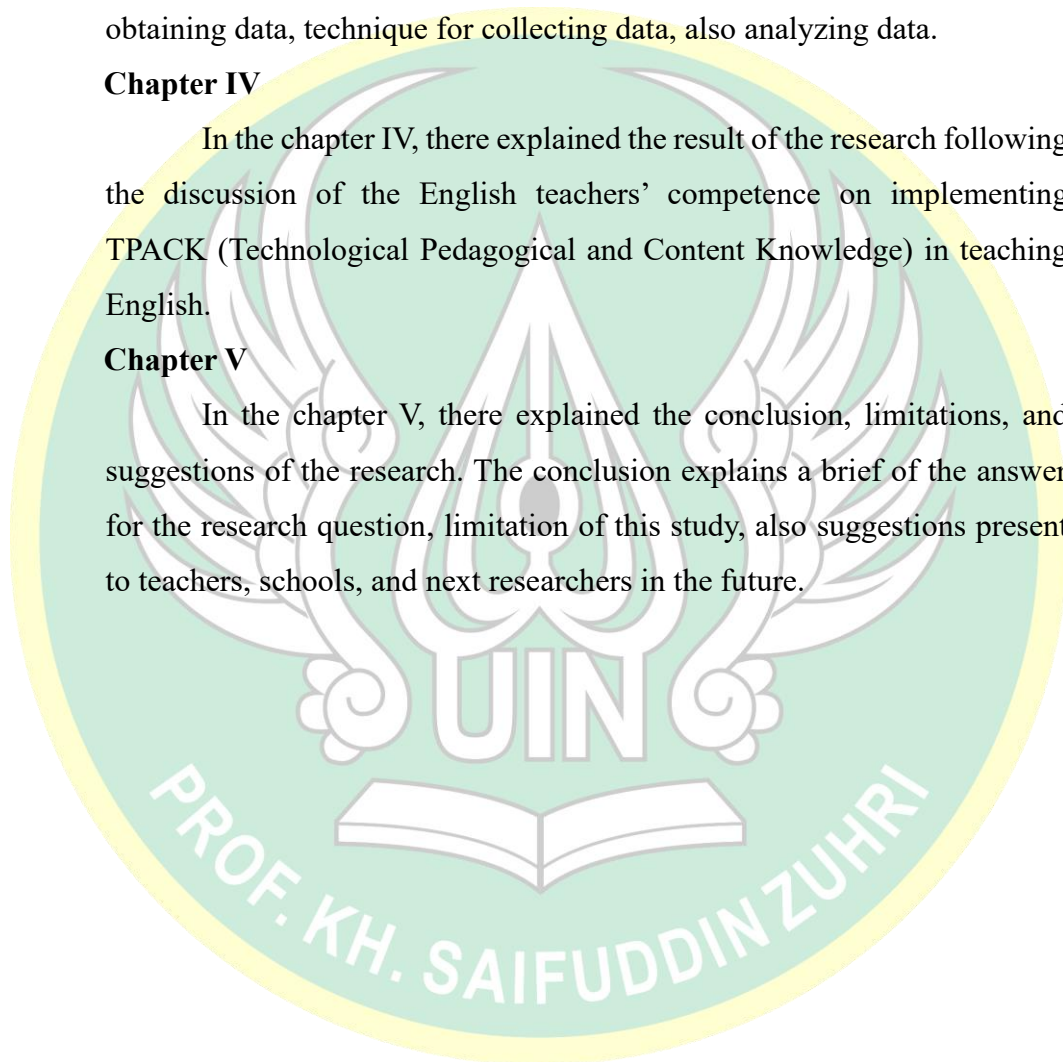
In the chapter III, there presented about research method and the reason to choose the particular aspect. It mentioned about the research design, time and place of the research, population, sample, instruments for obtaining data, technique for collecting data, also analyzing data.

Chapter IV

In the chapter IV, there explained the result of the research following the discussion of the English teachers' competence on implementing TPACK (Technological Pedagogical and Content Knowledge) in teaching English.

Chapter V

In the chapter V, there explained the conclusion, limitations, and suggestions of the research. The conclusion explains a brief of the answer for the research question, limitation of this study, also suggestions present to teachers, schools, and next researchers in the future.



CHAPTER II

THEORETICAL FRAMEWORK

A. Teachers Competence in Teaching English

Competence is the ability to perform something well with the quality of knowledge and professional capacity. Teachers need the competence in teaching as their ability to reach the learning goals and the interpretation of the result. Competence is an evaluation of how people implement their capability.²⁹ It means that competence embraces the capability of teachers in conduct the classroom to the outcome of students' achievements. The center of competence is on the ability and capability as the task in the execution of teaching English with some method or strategies used in teaching. Furthermore, the primary characteristics (such as cognitive skills (knowledge, critical thinking, problem-solving strategies), inter-personal skills, affective attributes and technical/psychomotor skills) required for competent accomplishment of these major jobs or elements are then determined.³⁰

In addition, teachers are necessarily qualified and competent in order to prepare and implement the curriculum in teaching activity.³¹ Teachers understanding in curriculum will influence the preparation to the outcome of teaching as the lesson plan, methods, strategies, assessment, etc. Teachers should comprehend the competencies as a professional English teacher. Communicative competence in foreign language, linguistic competence, linguistic-cultural competence and didactic/pedagogical competence are competencies that should be acknowledge by teachers.³² The whole combinations of teachers' professional competence will carry teachers into the advancement of teaching quality in teaching and learning activities.

²⁹ G Dobson. "A Guide to Writing Competency Based Training Materials". *Melbourne: National Volunteer Skills Centre. p.8. (2003)*

³⁰ Paul Hager & Andrew Gonczi. "What is competence?". *Medical Teacher. 18(1). (2009).*

³¹ Endang A A Sikki, A Rahman, A Hamra, & N Noni. "The Competence of Primary School English Teachers in Indonesia". *Journal of Education and Practice, 4(11). (2013).*

³² Victorian Pogolian. "The Russian System of Training Teachers of Foreign Languages for Young Learners: History and New Developments". (2008).

B. Kinds of Teachers' Competencies

Teachers play a big role in educational field as teachers make a significant influence on students' achievements. Therefore, teachers need to have such competencies which has been set by national standard. According to Indonesian Law of teachers' competencies No. 14 2005, there are four teachers' competencies, as follow:

1. Pedagogical Competence

Pedagogical competence is the capability of teachers in managing teaching and learning process. This competence is distinguishing teachers with other professions' competencies.³³ They need to understand the way of preparing the lesson plan related to the curriculum applied in the school, have a good teaching performance, and assessing students. There are sub competencies of teachers' pedagogical knowledge, such as:

- a. The ability of having deep understanding on students. It includes students' comprehension by enhancing their cognitive skill, personality, and determine the resource for early learners.
- b. Build a learning design. It includes comprehend educational foundation, implementing theory of teaching and learning, determine learning strategies according to students' characteristics, competency to be achieved, and teaching materials, also conduct study based on the chosen strategy.
- c. Applying learning which includes arranging the condition of learning and implementing a conducive learning.
- d. Design and implement learning evaluation. It includes design and implement evaluation process and learning outcomes, analyze the result of the evaluation, and improving the result of the evaluation.

³³ Yuli Sudargini & Agus Purwanto. "The Effect of Teachers Pedagogic Competency on the Learning Outcomes of Studetns". *Journal of Industrial Engineering & Management Research (JIEMAR)*. 1(4). (2020).

- e. Enhance students' achievements with facilitate them with various academic potential and facilitate students in developing their potential.³⁴

2. Professional Competence

Professional competence is teachers' ability, skill, knowledge, and characteristics that valued teachers in teaching. Other definition, professional competence is habitual and prudent use of communication, comprehension, technical ability, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of individual and community being served.³⁵ Professional competence of teachers in teaching English including teachers' competence in acknowledge subjects according to the curriculum that applied in the school, methods or strategies that can be applied in the classroom. It includes mastering teaching lessons, mastering standard and basic competences of teaching, enhance learning materials, enhance professionalism, and adjusting ICT in communication and develop self-ability.³⁶

3. Social Competence

Social competence is teachers' ability of the interaction to engage effectively with other people in social setting. Additionally, social competence is defined as the ability to get along with others, create, and sustain intimate relationships, and behave in appropriate ways in social situations.³⁷ Lang (2010) in Gedviliene et al (2014) stated that the term "social competence" is used interchangeably with terms such as "interactional competence", "communicative competence", "interpersonal competence", "relational competence", "emotional

³⁴ Muhammad Abduh & Almuntaqo Zainuddin. "The Role of Indonesian Teachers' Competencies in Developing Child-Friendly School". *International Conference on Child-Friendly Education 2016*. Surakarta, Indonesia. (2016)

³⁵ Ronald M. Epstein & Edward M. Hundert. "Defining and Assessing Professional Competence". *JAMA*. 287 (2). (2002)

³⁶ Muhammad Abduh & Almuntaqo Zainuddin. "The Role of Indonesian Teachers' Competencies in Developing Child-Friendly School". *International Conference on Child-Friendly Education 2016*. Surakarta, Indonesia. (2016)

³⁷ Pamela Orpinas. "Social Competence". *The Corsini Encyclopedia of Psychology*. Vol. 4. (2010)

competence”, “communication competence”, or “social skills”, thus “reflecting varied levels of conceptual and operational descriptions”.³⁸

As teachers, social competence comprises effective and efficient interaction with students, fellow teachers, staff, students’ parents, also surrounding society. Teachers should be objective, without distinguishing students or surrounding people with their background.

4. Personality Competence

Personality competence is teachers’ strong, stable, mature, wise and authoritative personality skill.³⁹ Personality competence on teachers lead teachers have self-awareness, self-management, responsible of decision making, and self-improvement toward education or any fields, adjusting their ability with other skills needed, such as methods, strategies, learning styles, and technological development. As a big role influence toward students, teachers need self-development in order to engage students and build interactive learning. There are sub competencies of personality competence, such as:

- a. A consistent and stable personality comprises acting in accordance with societal conventions, being pleased to be a teacher, and acting in accordance with the norms.
- b. Mature personalities demonstrate independence in their role as educators and have a strong work ethic.
- c. A wise personality exhibits acts help children, schools, and communities, as well as openness in thought and action.
- d. Authoritarian personality traits include having a favorable influence on students and being respected for their actions.

³⁸ N C Lang. Group Work Practice to Advance Social Competence: A Specialized Methodology for Social Work”. *New York: Columbia Unyversity Press.* (2010) in Genute Gedviliene, S Gerviene, A Pasvenskiene, & S Ziziene. “The Social Competence Concept Development in Higher Education”. *European Scientific Journal.* 10(28). (2014)

³⁹ A Srikaningsih, Sarmauli, H Y Karubaba. “Teacher Personality Competency in Improving he Interest of Learning Education of Christian Religious in Class Study Xi.1 Senior High School 1 Palangka Raya”. *Proceedings of the 1st International Conference on Life, Innovation, Change and Knowledge (ICLICK 2018).* (2019)

- e. Noble and can be an instance entails pupils functioning in accordance with religious values and having exemplary behavior.⁴⁰

To conclude, there are four teachers' competences, such as pedagogy competence, professional competence, social competence, and personality competence. Teachers can be called as a competent teacher when they have an adequate competencies and performances.⁴¹ In order to be a good educator, teachers should have the ability to manage classroom, have a good acknowledgement toward the subjects and curriculum, have a good social skill, and have steady personality in order to be a good role model for students.

C. TPACK

1. Concepts of TPACK

TPACK was created by Shulman in 1987 and 1986, and it is one of the frameworks that blends technological knowledge, pedagogy knowledge, and content knowledge in a learning setting. Pedagogical and Content Knowledge (PCK) was described, followed by an explanation of how instructors' knowledge of learning technology is related to PCK and other factors to achieve successful learning using technology. Through a number of papers, TPACK has kept developing over time.⁴² In TPACK, the focus was on how the combination of technological knowledge, pedagogic knowledge, and content knowledge may be used to create learning experiences that are successful and effective in a learning setting.⁴³

⁴⁰ Muhammad Abduh & Almuntaqo Zainuddin. "The Role of Indonesian Teachers' Competencies in Developing Child-Friendly School". *International Conference on Child-Friendly Education 2016*. Surakarta, Indonesia. (2016)

⁴¹ Nelza G Purnama, Risnawati, & D Lismayanti. "Teachers' Pedagogic Competence in Teaching English at Secondary School Level". *Jadila: Journal of Development and Innovation in Language and Literature Education*. 1(3). (2021)

⁴² Punya Mishra & Matthew J. Koehler. "Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge", *Teachers College Record*, 108(6). (2006).

⁴³ Nurhasanah Nurdin. "Analyzing the Implementation of Technological Pedagogical Content Knowledge (TPACK) by EFL Teachers in the Classroom". (2023)

As stated by Koehler and Mishra (2006), TPACK is the ability to utilize technology to support pedagogical practices, assist students in resolving issues that arise during the learning process, consolidate prior information, and work on technology to the point of preserving new knowledge.⁴⁴ In the context of 21st-century learning skills, TPACK is relevant for students to acquire sociocultural, cognitive, metacognitive, productivity, and technological skills, so that the teaching-learning process must be directed to the acquisition of these skills.⁴⁵ This is in line with Niess (2008) that 21st-century technologies are used by instructors to organize, plan, and modify the environment of the classroom in accordance with the demands of the students.⁴⁶ Moreover, for the teaching and learning process to be successful and efficient, the teacher should learn and grasp TPACK.⁴⁷ Then, as mentioned by Niess (2005), the combination of subject-matter expertise with technological advancements, as well as expertise in teaching and learning, is known as TPACK.⁴⁸ TPACK is refers to the efficient incorporation of pedagogical content knowledge into educational technology in the classroom.⁴⁹

Referring to the explanation above, Technological Pedagogical Content Knowledge, as known as TPACK, is a demanding framework

⁴⁴ Punya Mishra & Matthew J. Koehler. "Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge", *Teachers College Record*, 108(6). (2006).

⁴⁵ Joke Voogt & Natalie Pareja Roblin. "A comparative Analysis of International Frameworks for 21st Century Competences: Implications for National Curriculum Policies", *Journal of Curriculum Studies*, 44(3). (2012): 299-321.

⁴⁶ Margar et L. Niess. "Knowledge Needed for Teaching with Technologies: Call it TPACK", *AMTE Connections*, 17 (2008): 9-10.

⁴⁷ Mahdum. "Technological Pedagogical Content Knowledge (TPACK) of English Teachers in Pekanbaru, Riau, Indonesia", *Mediterranean Journal of Social Sciences: MCSER Publishing, Rome-Italy*, 6(5). (2015)

Nur Arifah Drajiati, Hilda Rakerda, Hefy Sulistyawati, Joko Nurka, to, and Ma'rifatul Ilmi. "Investigating the Adoption of TPACK-21 CL by English Pre-service Teachers in a COVID-19 Teaching Practicum", *Indonesian Journal of Applied Linguistics*. 11(1), (2021): 124-133.

⁴⁸ M. L. Niess. "Preparing Teachers to Teach Science and Mathematics with Technology: Developing a Technology Pedagogical Content Knowledge", *Teaching and Teacher Education*, 21. (2005): 509-523.

⁴⁹ B. Timur and M. F. Taşar. "Teknolojik pedagojik alan bilgisi öz güven ölçeğinin (TPABÖGÖ) Türkçe'ye uyarlanması", *Gaziantep University Journal of Social Sciences*, 10(2). (2011).

in teaching as in 21st century year, which teachers needs to use TPACK in teaching and learning in order to enhance acquire sociocultural, cognitive, metacognitive, productivity, and technological skills.

2. Components of TPACK

There are a lot of aspects that required in education field in order to build a joyful teaching and learning environment. Technology offers both teachers and students to construct effective teaching and learning. Following by teacher's competence in pedagogy and content knowledge, technology leads teachers to produce expected professional educators in the future.⁵⁰

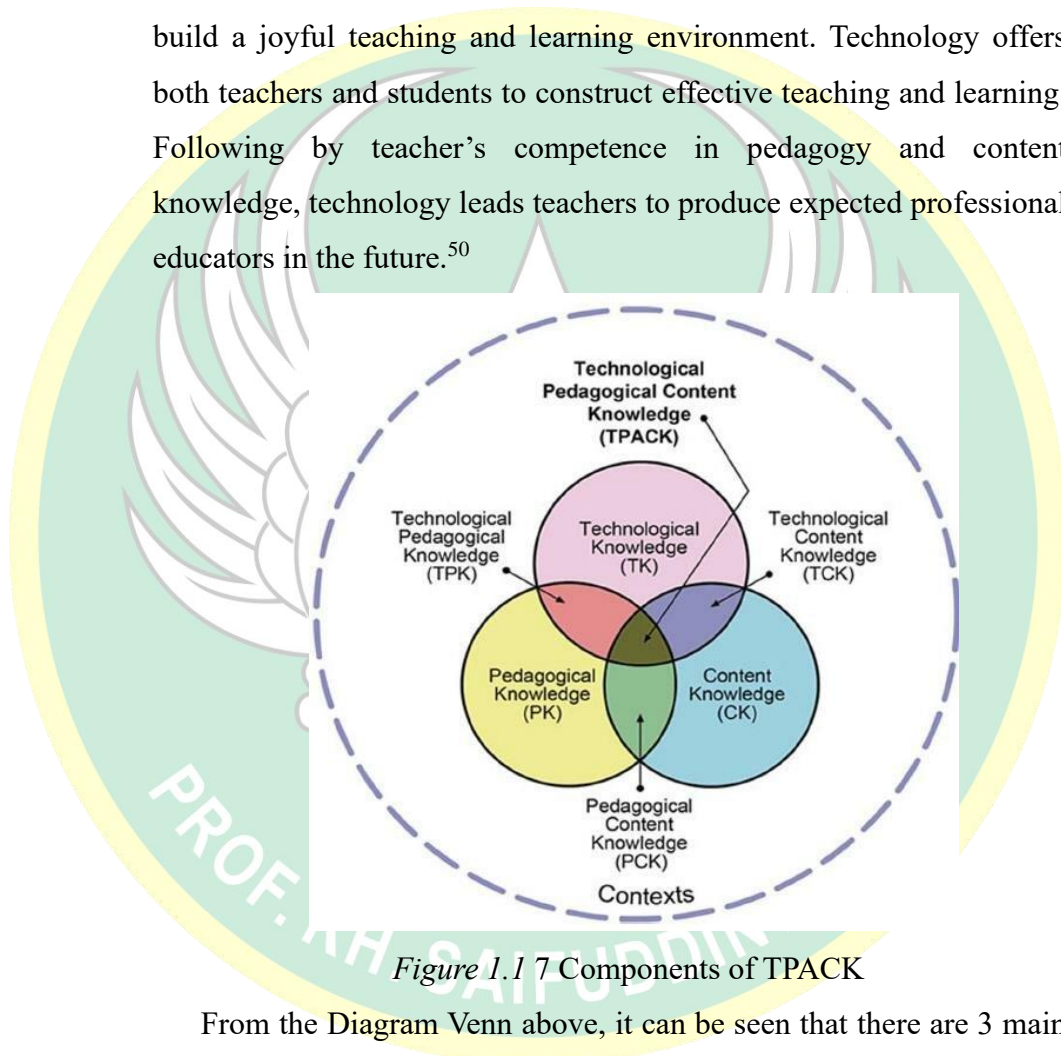


Figure 1.1 7 Components of TPACK

From the Diagram Venn above, it can be seen that there are 3 main components, there are Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). Moreover, those main components are connected into each other, that separate them into 7

⁵⁰ Aulia Nursyifa, Imam Fitri R., & Eti Hayati. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *Jurnal Pendidikan Indonesia*. Vol. 9(1). (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982)

components of TPACK, such as TK, PK, CK, PCK, TPK, TCK, and TPACK.

a. Technological Knowledge (TK)

Technological competence in teaching English is including the ability of computer skill and the understanding to use in the classroom. Technological skill in teaching commonly called as ICT (Information Communication and Technology). It is defined as a diverse set of technological tools and resources used to communicate, as well as to create, disseminate, store, and manage information.⁵¹ ICT is very useful in this era and will be more by the advancing of it in the future. As Ramadan (2015), in his research, he explained that ICT can and will enable instructors and students changing the focus of teaching and learning from being heavily teacher-dominated into student-centered. This change will lead to greater learning benefits for students, developing and provide chances for students to enhance their creative thinking, problem-solving skills, informational reasoning, communication skills, and other higher-order thinking talents.⁵² According to Voss, Kunter, and Baurmert (2011) that cited in Saputra (2021), pedagogical competence is a skill that will impact both the effectiveness of the teaching and learning process and the learning results for the students. The capacity of instructors to manage students' learning by planning, carrying out and assessing the process and the learning output.⁵³

Technology is immensely required in this period of time, where learners can find any information that widely open in many

⁵¹C. Blurton, "New Directions of ICT-Use in Education". (Available online <http://www.unesco.org/education/educprog/lwf/dl/edict.pdf>; accessed 14 May 2023)

⁵² Mahmoud A. Ramadan. "The Effectiveness of Information and Communication Technologies (ICTs) on the Sustainable Efficiency of Education Learning Systematic Processes", *Proceeding of 4th Global Business and Finance Research Conference*.

⁵³ Bagus Tri Saputra. "Students' Perception of Teachers' Pedagogical and Personal Competences Toward their English Learning Outcomes at SMPN 1 Bandar Seikijang". *Thesis*.

sources. According to National Research Council (NRC) cited in Koehler (2013), the ideas of computer literacy is necessary for a person to acknowledge technology in order to effectively applying it to be productive whether in work or in a daily life.⁵⁴ Therefore, the existence of technology is beneficial for any subjects. As in education field, technological knowledge commonly called as Information Communication and Technology (ICT) can support educational field, such as build a Students Centered Learning, Supporting Information Development (Constructivism Learning), inspiration to memorize, Creating Higher Order Thinking Skill, Creating Issue Understanding Demeanor and Making intrigued.⁵⁵

According to United Nations Development Program (UNDP) that cited in Ramadan (2015), explain that ICTs are simply information-handling tools, that involve a wide range of items, programs, and services used to generate, preserve, manage, process, distribute, and transmit information, such as operating technological tool in the classroom as laptop, LCD Projector, etc.⁵⁶ It means that technology can be defined as both analog or digital tools. Therefore, teachers are not as it were source of learning, yet the literature sources in learning can be accessed easily by students.⁵⁷ Thus, Technological knowledge of teachers plays an important role as it simplify teachers work inside or outside the classroom.

b. Pedagogical Knowledge (PK)

⁵⁴ Matthew J. Koehler, Punya Mishra, & William Cain. "What is Technological Pedagogical Content Knowledge (TPACK)?" *Journal of Education*, 193(3). (2013).

⁵⁵ Sudhir Sudam Kaware & Sunil Kumar Sain. "ICT Application in Education: An Overview". *International Journal of Multidisciplinary Approach and Studies*. Vol. 2(1). (2015).

⁵⁶ Mahmoud A. Ramadan. "The Effectiveness of Information and Communication Technologies (ICTs) on the Sustainable Efficiency of Education Learning Systematic Processes". *Proceedings of 4th Global Business and Finance Research Conference*. (2015).

⁵⁷ Aulia Nursyifa, Imam Fitri R., & Eti Hayati. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *Jurnal Pendidikan Indonesia*. Vol. 9(1). (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982)

Teachers' pedagogical knowledge is essential in teaching and learning process whether in preparation to the outcome of the learning process. According to the Law 10(1) No. 14 of 2015 that teachers should have pedagogical competence, personality competence, social competence, and professional competence.⁵⁸ These competences combination is a must for teachers that must be acknowledge in to be a good teacher.

Pedagogical competence of teachers in teaching is characterized as the competence to construct a high-quality learning environment while authenticating excellent attitudes and behaviors.⁵⁹ The high-quality learning environment can be done by teachers who have preparation as lesson plan, method, strategies, learning goals, and learning media. The implementation of pedagogical competence in teachers may enhance students' growth in term of their morel, emotional, and intellectual development.⁶⁰

The pedagogical knowledge is focused on the way teachers create an effective teaching and learning in the classroom.⁶¹ Therefore, it needs teachers' competences to possess anything needed for the teaching and learning activity, such as create lesson plan, specify goals, procedures, and also the strategies that need to be applied to enhance the quality in teaching and learning activity. Moreover, teachers' beliefs and attitudes are also following the outcome of classroom activity which they should act to be professional teachers

c. Content Knowledge (CK)

⁵⁸ www.bpkp.go.id. "Peraturan Pemerintah Republik Indonesia Nomor 19 Tahun 2017 Tentang Perubahan Atas Peraturan Pemerintah Nomor 74 Tahun 2008 Tentang Guru".

⁵⁹ Ramayulis. "Profesi dan Etika Keguruan", Jakarta: Kalam Mulia, 2nd edition. (2013)

⁶⁰ F. A. Ningtiyas & Jailani. "Does Teachers' Training Affect the Pedagogical Competence of Matematics Teachers?", *Journal of Physics: Conference Series*. (2018). (doi :10.1088/1742-6596/1097/1/012106).

⁶¹ Sonia Guerriero. "Teachers' Pedagogical Knowledge and the Teaching Profession: Background Report and Project Objectives".

Competence of teachers is about the comprehension of teachers to understand the materials/content. Content competence also defined as the knowledge of resources that may be used to teach a certain subject matter by a teacher includes resources like software, visual aids, and films, among others.⁶² Content knowledge is the comprehension of teachers about what they are need to teach and students anticipated to received. It means that content knowledge is comprises understanding of the topic and its logical organization.⁶³ According to Ball et al. (2008) that cited in Ward et al (2014), there are two main categories of CK, they are (1) CCK, which stands for the knowledge and skills necessary to carry out a task; and (2) SCK, which stands for the knowledge and skills necessary to teach.⁶⁴ Moreover, Concepts, ideologies, ideas, frameworks, methods for proving knowledge, and strategies for knowledge creation are all part of content knowledge which explained by Shulman (1986), it can be referred as follow:

- 1) Understanding educational principles, practices, and theories as well as applying the subject matter.
- 2) The capability to create instructional resources.
- 3) Information that is pertinent and important concerning the topic.
- 4) Strengthens the subject lecture by giving students tasks.⁶⁵

⁶² Lee S. Shulman. "Those Who Understand: Knowledge Growth in Teaching", *Educational Researcher*, 57(2). (1986): 4-14.

⁶³ Deborah Loewenberg Ball, Mark Hoover Thames, & Geoffrey Phelps. "Content Knowledge for Teaching: What Makes It Special?". *Journal of Teacher Education*. (2008). (DOI: 10.1177/0022487108324554)

⁶⁴ Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59, 389–407 cited in Phillip Ward, Insook Kim, Bomna Ko, & Weidong Li. "Effects of Improving Teachers' Content Knowledge on Teaching and Student Learning in Physical Education". *Research Quarterly for Exercise and Sport*. (2014). (DOI: 10.1080/02701367.2014.987908)

⁶⁵ Lee S. Shulman. "Those Who Understand: Knowledge Growth in Teaching", *Educational Researcher*, 57(2). (1986): 4-14.

d. Pedagogical Content Knowledge (PCK)

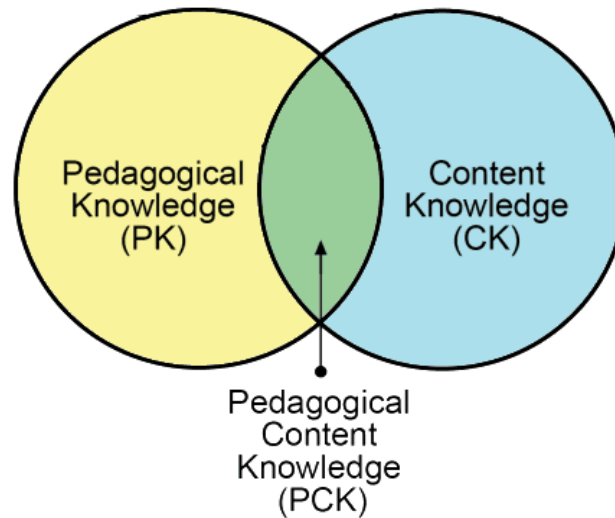


Figure 1.2 Pedagogical Content Knowledge

Pedagogical content knowledge (PCK) is a knowledge for teacher to master in both of pedagogical and content knowledge in which the manner of how they teach and how they comprehend what they teach. PCK conduct teachers to enhance students' achievement.⁶⁶ In which PCK aims to facilitate students learning that they should design the lesson plan and utilize it with adjusting students learning behavior. In PCK, teachers should provide teaching resources that encourage students' potential in collaboration, communication, critical and creative thinking; also, comprehensive educational opportunities with a focus on scientific learning materials.⁶⁷ Therefore, it is significant for them to encourage their students within the lesson being taught and select appropriate approaches along the relevant assessment.

According to Magnusson et al (2017) that cited in Herawati (2021), professional teacher should have 5 components, such as:

⁶⁶ Lee S. Shulman. "Knowledge and Teaching: Foundation of the New Reform". *Harvard Educational Review*, 57, 1-22. 1987

⁶⁷ Punya Mishra & Matthew J. Koehler. "Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge." *Teachers College Record*, 108(6). (2006).

- 1) Orientation of teaching (knowledge about content materials of specific study field and the confidence about how the content will be taught)
 - 2) Knowledge about curriculum.
 - 3) Knowledge about assessment.
 - 4) Knowledge about students understanding of the lesson.
 - 5) Knowledge about teaching strategies.⁶⁸
- e. Technological Pedagogical Knowledge (TPK)

Technological Pedagogical Knowledge (TPK) is teachers' competence in maximizing a particular technology in particular manner in the process of teaching and learning. TPK includes teachers understanding of how technology may assist active learning, aid in the understanding of subject-matter concepts, and modify how learning happens. According to Koehler et al. (2007), they explained about TPK, as follow:

“This knowledge emphasizes the existence, components and capabilities of various technologies as they are used in teaching and learning settings. This might include an understanding that a range of tools exist for a particular task (e.g., fostering collaboration) as well as knowing what pedagogical strategies to employ to get the most out of a piece of technology”

That means TPK is a grasp of the technologies that may be employed in a given pedagogical setting, including their affordances and limits, as well as how that technology's capabilities have an impact on by the teacher's pedagogical ways of teaching.⁶⁹

According to Schmidt et al (2009), TPK means the way numerous of technology can be integrated in teaching, also to make an acknowledgement of technology that it could be modify the way

⁶⁸ Herawati. “Kompetensi Technological Pedagogical Content Knowledge (TPACK) Guru Kimia”. (2021)

⁶⁹ Susan Marie Cox. “A Conceptual Analysis of Technological Pedagogical Content Knowledge”. *Unpublished Theses and Dissertations: Brimingham Young University*. (2008)

teachers teach.⁷⁰ So, it is essential that teachers should have enough knowledge about technology and implement in a proper way and suitable to the coursework being taught in the classroom.

f. Technological Content Knowledge (TCK)

Technological Content Knowledge (TCK) refers to the use of technology that give assistance to teachers' content in teaching and learning process that can have effects on each other. The TCK is particularly purposed to the use of technology that appropriate according to the content being taught in the teaching and learning process, to give an instance is the way teachers acknowledge how to use Microsoft Excel in the specific content needed. Thus, TCK denotes knowledge on how to employ appropriate technology for certain content.⁷¹

In TCK, teachers need to understand technologies that useful in accordance with teaching language in specific content. As well as the use of communication tools, such as WhatsApp, Line; or any social media Twitter, LinkedIn, Facebook etc. ⁷² It can be utilized as an improvisation of the subject.

g. Technological Pedagogical and Content Knowledge (TPACK)

Technological Pedagogical and Content Knowledge (TPACK) is a set of components combination of skills about Technology, Pedagogy, and Content. It requires teachers' interpretation and establishment of the notion in take advantage of using technologies, pedagogical techniques, enhancement of content, and the acknowledgement of technologies and about how

⁷⁰ Denise A. Schmidt, Evrim Baran, Ann D. Thompson, Punya Mishra, Matthew J. Koehler, & Tae S. Shin. "Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher", *JRTE*, 42(2). 123-149. 2009.

⁷¹ Tae Shin, Matthew Koehler, Punya Mishra, Denise Schmidt, Evrim Baran, & Ann Thompson. "Changing Technological Pedagogical Content Knowledge (TPACK) Through Courses Experiences". (2009).

⁷² Aulia Nursyifa, Imam Fitri Rahmadi, & Eti Hayati. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *Jurnal Pendidikan Indonesia*. 9 (2). (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982)

they construct the knowledge into the development of teaching and learning activities.⁷³ Moreover, according to Mishra & Koehler (2006), TPACK is a foundation of excellent technology-enhanced teaching and entails a grasp of the conveying of ideas using technologies.⁷⁴ Moreover, according to Mishra & Koehler (2008), In order to successfully integrate technology into the classroom, teachers must understand the complex connections between content, pedagogy, technology, and knowledge of the educational context, including knowledge of students, the school, the learning infrastructure, and the environment.⁷⁵

D. Teachers Difficulties on TPACK

TPACK stands a useful framework that build on teachers teaching quality in the process of teaching and learning. The significance of realizing that TPACK is a perfect combination concept of technology, pedagogy, and content knowledge is a crucial matter.⁷⁶ TPACK help teachers in order to embrace technology in their teaching activity that gathered with pedagogy and content knowledge. Technology plays an important role in this era which teachers should adapt and choose kinds of technology that being used in the learning process and adjusted it by the content also their ability to utilize it in the best way, so that students can enjoy and maximize their learning activity. Yet, beside of the magnificence of TPACK, there are many barriers in it which one of them is on the concept of TPACK itself. TAPCK does not provide the course of action in order to develop teachers' competence in TPACK, also the enhancement levels are not covered

⁷³ Matthew J. Koehler, Punya Mishra, & Kurnia Yahya. "Tracing the Development of Teacher Knowledge in a Design Seminar: Integrating Content, Pedagogy and Technology". *Computer & Education* 49. (2007).

⁷⁴ Matthew J. Koehler & Punya Mishra. "Technological Pedagogical Content Knowledge: A New Framework for Teacher Knowledge". *Teachers College Record*, 108(6). (2006)

⁷⁵ P. Mishra & M. J. Koehler. "Introducing Technological Pedagogical Content Knowledge". (2008)

⁷⁶ Constance Adams. "TPACK Model: The Ideal Modern Classroom". *Technology and the Curriculum: Summer 2019*, Ohio Tech University. (2019).

because it does not suggest in TPACK model.⁷⁷ In consequence, a lot of teachers have confusion in order to embrace their capability of TPACK in each competence. The barriers that happened for teachers on TPACK according to some previous researchers, such as: Technology integration in educational settings has still got quite ways ahead of it and continues to be a problem for language teachers.⁷⁸

1. Requirements of using technology, students' behavior, and teachers' ability in order to adapt new technology tools.⁷⁹
2. There is a dearth of technological guidance and training for educators in the educational system.⁸⁰

According to Shulman (1986), in spite of the fact that knowledge of teaching theories and practices is essential, it is a distant second in a teacher's qualifications.⁸¹ Thus, it means that teachers' competence or teachers' performance in teaching is way important than just acknowledge theories of teaching. Therefore, teachers need an observation and coaching of technical proficiency.⁸²

Based on the explanation above, it can be concluded teachers' knowledge about theories of teaching is important, yet teachers' performance is more significant. Also, teachers need a training and guidance in their performance to enhance their ability. Hence, TPACK has its disadvantage as TPACK does

⁷⁷ James Welsh. "Choosing Models and Modeling Choices". Teaching and Learning with Technology (<https://fcit.usf.edu/matrix/choosing-models-and-modeling-choices/#:~:text=One%20limitation%20of%20TPACK%20is,purpose%20of%20the%20TPACK%20model>), accessed in 29 September 2023)

⁷⁸ Willow F. Pangket. "Technological Pedagogical and Content Knowledge (TPACK) of English Language Teachers and Their Teaching Practices". *Journal of Positive School Psychology*. 6(2). (2022)

⁷⁹ Achmad I. Obos., Aridah, Desy Rusmawaty. "Transition to Online Learning: Implementing the TPACK Framework by English Teachers DUE TO covid-19 Pandemic". *JET: Journal of Education and Teaching*. 4(1). (2023)

⁸⁰ Sihombing R A, Manurung G A, & Simanjuntak L A. "Analysis of Implementation of TPACK by Teachers Through Distance Learning at Junior High School in Medan". *Indonesian Science Education Research (ISER)*. 3(2). (2021)

⁸¹ Lee S. Shulman. "Those Who Understand: Knowledge Growth in Teaching". *Educational Researcher*. 15(2), 4-14. (1986). (Doi: 10.3102/0013189x015002004)

⁸² Lau Teng Lye. "Opportunities and Challenges Faced by Private Higher Education Institution Using the TPACK Model in Malaysia". *Procedia: Social and Behavioral Science*. (2013).

not have theories of solutions in order to help teachers solve their difficulties in each component of TPACK.

E. Review of Relevant Studies

There are some previous studies related to the English teachers' TPACK competence in teaching English, as follow:

Research from Nurdin (2023) entitled “Analyzing the Implementation of Technological Pedagogical Content Knowledge (TPACK) by EFL Teachers in the Classroom”. This research is a qualitative descriptive method with observation and interview are the instruments to collect the data. the data collected in EFL classroom at SMPN 4 Sungguminasa. This research aimed to discover the implementation of TPACK in EFL classroom at SMPN 4 Sungguminasa and the teachers' perception on the implementation of TPAC in EFL classroom. Thus, the study resulted that teachers in SMPN 4 Sungguminasa have great level of TPACK that they can operate various technology and manage classes in teaching EFL classroom, such as LCD projectors, power point, Google Classroom, WhatsApp, mantimeter.com and YouTube. Furthermore, it showed that teachers' ICT used in the classroom makes students are motivated and easy to understand the material.⁸³

Then, there is research from Aryati (2021) entitled “Teachers' Technological Pedagogical Content Knowledge (TPACK) in Teaching EFL Learners During Covid-19 Pandemic (A Comparative Study between Rural & Urban Teachers). This is a comparative descriptive research method with observation, interviews, and documentation as a data collection technique. The study purposed to identify and describe the implementation of teacher pedagogical content knowledge (TPACK) technology in EFL learning during the Covid-19 pandemic in two different school areas (rural and urban). Furthermore, the study showed that urban teachers have higher TPACK level than rural teachers where they can operate technology

⁸³ Nurhasanah Nurdin. “Analyzing the Implementation of Technological Pedagogical Content Knowledge (TPACK) by EFL Teachers in the Classroom”. (2023). *Thesis*

variance and manage classes in teaching English during the Covid-19 pandemic, the online application such Zoom meeting, WhatsApp, Google Classroom, Edmodo, Quizziz, and YouTube app. They have done quite well in teaching and learning process. In the other way, rural EFL teachers have insufficient TPACK. They do not yet have sufficient knowledge about technological advances for online learning due to limited supporting facilities and electricity supply disruptions. Yet even though in rural and urban areas have never implemented an online learning system previously, they have different capabilities in dealing with the problem in implementing it in learning system.⁸⁴

Furthermore, research from Adnan & Yunisari (2023) entitled “TPACK: Teachers’ Needs”. Their research aimed to know teachers’ implementation of lesson plans by using mixed-method (qualitative and quantitative) research design. The subjects were from each educational level (junior, senior, and vocational schools) in West Sumatra. This research found that pedagogical competence was higher than technological and content knowledge as a result that they were adopted lesson plan from the internet. In the other hand, technological competence was higher than other competencies and they had a good comprehension of TPACK in assessment field. Yet, the content knowledge was not showing significant understanding. To conclude, teachers’ competencies were still in under average in TPACK.⁸⁵

From the previous research above, the similarity of the research is to be discussed about analyzing Technological Pedagogical Content Knowledge (TPACK) in the implementation of teaching English. Besides, the difference of the research is this research will investigate English Teachers Competence of TPACK in teaching English with survey and observation to collect the data.

⁸⁴ Septian NurAryati. “Teachers’ Pedagogical Content Knowledge (TPACK) in Teaching EFL Learners During Covid-19 Pandemic (A Comparative Study Between Rural & Urban Teachers)”. *Thesis*

⁸⁵ Aryuliva Adnan & Caca Yunisari. “TPACK: Teachers’ Needs”. *TA'DIB*. 26(1). (2023)

CHAPTER III

RESEARCH METHOD

This chapter deals with the research method which presents type of the research, time and location, population and sample, technique of data collection, and technique of data analysis.

A. Type of the Research

Quantitative descriptive approach is the type of research that applied in this research. Quantitative Descriptive study is sort of non-experimental study in which provide the data in the form of words and numbers. This research was conducted by survey method using questionnaire that was done in order to collect the data. The questionnaire form contains teachers' self-assessment upon 7 domains of TPACK that filled by English high school teachers in Banjarnegara.

B. Time and Location of the Research

This study was carried out from 7th July to 10th August 2023 which was conducted in Banjarnegara regency, Jawa Tengah. Banjarnegara has chosen as the location to collect the data because of the diversity among the number of High Schools in Banjarnegara that are from different zone and various qualities, which one of the diversities is must be influenced by teachers' competence.

C. Population and Sample of the Research

The population of this study was all of English Teachers in Senior High School under the Department of Education and Culture including whether public or private Senior Secondary High School and Vocational High School. Senior Secondary High school level was chosen considering as it is obvious that students are preparing for their future as work or university level, thus it is important to discover teachers' competence level of TPACK that is very significant. Furthermore, the population was chosen only under the Department of Education and Culture considering that number of high schools under the department was 30 high schools, therefore, this amount was considered as sufficient to conduct the data collection. In addition, the

population was from high school English teachers in Banjarnegara who had joined MGMP (Musyawarah Guru Mata Pelajaran or Teachers' Working Group). According to the chairman of MGMP SMA and SMK, the number of populations from SMA was 32 English Teachers and 75 English Teachers from SMK.

On the other side, simple random sampling was used as the technique of data collection. According to the data that has been collected, the participants who was filled the questionnaire until the deadline time of 10th of August were amount 75 out of 107 populations of English Teachers from SMA and SMK at Banjarnegara Regency. Accordingly, in this research the data was analyzed using 75 sample of respondents.

D. Technique of Data Collection

According to the method of this study, questionnaire is the only data collection method that useful to gather the data collection. Through the data collection technique, it was possible to gather the genuine information of teachers' self-assessment about teachers' competence toward 7 domains of TPACK.

1. Questionnaire

The data of this study was collected in the form of questionnaire. It was distributed to all of the population of this research which from public and private high school and vocational high school without consider the grade level. The questionnaire was created in google form and send it to all of samples. The instrument of this study was adopted from Schmidt et al. (2009), Sahin (2011), and Nursyifa et al (2020).⁸⁶ The expert validation of the questionnaire was validated by the supervisor Muflihah, M, Pd. The questionnaire was measured English

⁸⁶Denise A. Schmidt, Evrim Baran, Ann D. Thompson, Punya Mishra, Matthew J. Koehler, & Tae S. Shin. "Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher", *JRTE*, 42(2). (2009):123-149., Sahin Ismail. "Development of Survey of Technological Pedagogical and Content Knowledge (TPACK)", *TOJET: The Turkish Online Journal of Educational Technology*, 10(1). (2011). Auliya Nursyifa, Imam F. Rahmadi, &Eti Hayati. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0", *Jurnal Pendidikan Indonesia*, 9(1). (2020).

teachers' self-assessment on TPACK. The answer for each item is based on five level Likert Scale, as follow:

Score 1 = Strongly Disagree

Score 2 = Disagree

Score 3 = Neutral

Score 4 = Agree

Score 5 = Strongly Agree

Likert Scale was used as it has neutral answer. It will be functioning if the teacher is impartial for their TPACK competence. The questionnaire was displayed using English language from the consideration that the subject of this study was an English teacher. The questionnaire indicators were consisting of 45 questions from 7 indicators of TPACK. Moreover, it was divided into two category which include respondents' background and respondents' competence on TPACK. Furthermore, the instrument was tested using validity and reliability.

a. Validity and Reliability

Validity and reliability test was used to analyzed the data result from Questionnaire. Moreover, IBM SPSS Statistic 25 was completed in order to conduct the statistical data.

1) Validity Test

Validity test was used to test the validity of data gathered from questionnaire. Validity test refers to what the test measures and how well it measures that trait. In this research, the validity test was used Pearson Product Moment Correlation. It is a measure of the strength of a linear association between two variables and is denoted by r . Pearson product moment correlation seeks to create a best-fit across the data of two variables, and the Pearson correlation coefficient, r , reveals how close all of these data points are to this best-fit line. The validity can be seen by the significances, where:

1. Significance value > 0.05= valid
2. Significance value < 0.05= invalid

Here is the formula:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

Where:

r = correlation coefficient

x_i = values of the x-variable in a sample

\bar{x} = mean of the values of the x-variable

y_i = values of the y-variable in a sample

\bar{y} = mean of the values of the y-variable

Here is the result of the validity test:

Correlations							
Question No.	TK	CK	PK	PCK	TCK	TPK	TPACK
1	.715"	.650"	.759"	.798"	.687"	.782"	.859"
2	.726"	.755"	.857"	.737"	.861"	.837"	.880"
3	.697"	.808"	.838"	.803"	.839"	.664"	.870"
4	.667"	.813"	.744"	.859"	.759"	.816"	
5	.684"		.839"			.810"	
6	.674"		.826"			.756"	
7	.661"					.851"	
8	.559"					.769"	
9	.788"					.797"	
10	.701"						
11	.772"						
12	.711"						
13	.690"						
14	.585"						

15	.604"						
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2) Reliability Test

Reliability test refers to how dependably or consistently a test measures a characteristic. An instrument will be valid reliable when their answer on the statements or questions was consistent. In this research, Cronbach's Alpha Test was used to measures the reliability of the instrument. Cronbach's Alpha Test is a method of evaluating reliability that compares the amount of shared variation, or covariance, among the items that comprise an instrument to the amount of overall variance. To know the reliability is when Cronbach's alpha value >0.6.

Here is the result of Reliability test:

No.	Competence						
	TK	CK	PK	PCK	TCK	TPK	TPACK
Reliability	0,916	0,749	0,893	0,808	0,792	0,919	0,833

E. Technique of Data Analysis

This study was using quantitative descriptive analysis that was executed by explaining gathered data. The data analysis was carried out with 2 stages, as follow:

1. Percentage of the Data

The data was shown by using percentage and describe the explanation of the result. The following formula will be used of the percentage as follow:⁸⁷

$$P = \frac{F}{N} \times 100\%$$

⁸⁷ Anas Sudijono. "Pengantar Statistik Pendidikan". Jakarta: Rajawali Pers. 2011. p. 43

Where:

P: Percentage

F: Frequency being searched

N: Number of cases (Number of frequency or number of individuals)

2. Grouping the Scores by Category

After the data has been gathered, the data was shown in a category of intervals that taken from Sugiyono (2017) that can be seen in the table below:⁸⁸

Percentage of	Criteria
85%-100%	Very Good
69%-84%	Good
53%-68%	Enough
37%-57%	Less
20%-36%	Very Less

⁸⁸ Sugiyono. "Metode Penelitian dan Pengembangan (Research and Development)". *Yogyakarta: Alfabeta Bandung*. 2017.

CHAPTER IV FINDING & DISCUSSION

The finding and discussion of this study was divided into two stages, the first stage was about respondents' profile, then the second stage was shown teachers' competence on 7 aspects on TPACK. Moreover, Validity and Reliability Test through Pearson Product Moment Correlation and Cronbach's Alpha Test showed that most of the instruments' item were valid and reliable, except number 4 of PK statement, thus the item was disqualified. Hence, finding and discussion in this research was only discuss the data that were valid.

A. Respondents' Profile

1. Respondents' Profile of Educational Background

Table 1.1 Respondents' Profile Based on School Background

School	Frequency	Percentage (%)
Senior High School	32	42.7%
Vocational High School	43	57.3%
Total	75	100%

According to the table above, number of teachers' who was completing the questionnaire in this study was 75 English Teachers. It shows that the respondents from Vocational High School was 14.6% higher than they who are from Senior High School which caused by the population from Vocational High School is also higher than the Senior High School.

Table 1.2 Respondents' Profile Based on Educational Background

Educational Background	Frequency	Percentage (%)
Diploma	22	29.3%
Undergraduate	34	45.3%
Master	19	25.3%
Total	75	100%

Table 1.1.2 shows that most of teachers' educational background in Banjarnegara High School have Undergraduate Degree with 34 respondents (45.3%). Yet, Teachers' who have master degree are the

lower with number 19 (25.3%) followed by 22 (29.3%) of English Teachers in Banjarnegara have Diploma degree. Even though the background degree level alone cannot describe teachers' performance in teaching,⁸⁹ yet there is standard that should be considered. The number of teachers who have diploma still high which it is inconvenient with Indonesian teachers' qualification education background standard according to Law No. 14 year 2005 about teacher and lecturer that teachers' academic qualification should have minimum Diploma IV that equivalent to Undergraduate degree.⁹⁰ Therefore, it can be concluded that there are still teachers in Banjarnegara Regency who are not fulfilled the government requirement to be a teacher.

Table 1.3 Respondents' Profile Based on Teaching Experience

Teaching Experience	Frequency	Percentage (%)
≤10 years	13	17.3%
11-20 years	41	43.7%
21-30 years	16	21.3%
≥30 years	5	6.7%
Total	75	100%

According to the table above, number of teachers who teach more than 30 years was only 5 (6.7%), than they who are teach less than equal 10 years are 13 (17.3%). Furthermore, most of teachers were experienced in 11-20 years which number 41 (43.7%). From the data above, teachers who have experienced more than equal to 30 years were lesser than they are who teach less than 30 years in which it is very important to consider that long-serving teachers are not undoubtedly more effective in teaching than younger teachers.⁹¹ It is in line with Indonesian Government rule of

⁸⁹Dan D Goldhaber & Dominic J Brewer. "Evaluating the Effect of Teacher Degree Level on Educational Performance". (1996)

⁹⁰ Ministry of Finance of Republic Indonesia. "Undang". <https://jdih.kemenkeu.go.id/fulltext/2005/14tahun2005uu.htm> (Accessed in 27 September, 2023).

⁹¹ Charleen Chiong, Loic Menzies, & Meenakshi Parameshwaran. "Why do long-serving teachers stay in the teaching profession? Analysing the motivations of teachers with 10 or more years' experience in England". *British Educational Research Journal*. (2017)

law no. 14 year 2005, that says productive teachers or teachers retention in teaching was in the age of 60 years.⁹² Thus, it can be seen that it is stable number of experienced teachers seen by the number of junior teachers compared to experienced teachers which have more than 10 years experienced, means that many teachers are still on an effective age in teaching.

Table 1.4 Respondents' Profile Based on Teaching Certification

Teaching Certification	Frequency	Percentage (%)
Done	64	85.3%
No yet	11	14.7%
Total	75	100%

Table 1.1.4 shows a positive result that 85%.35 of English Teachers in Banjarnegara have certification in teaching. Teachers' certification has a great impact toward teachers' performance event though it is not giving very important significances.⁹³ Yet, teachers who have higher score in certification test are expected to have more ability in improving students' achievements.⁹⁴ Therefore, it is important to teachers to have a certification as to improve teachers' qualifications related to its standard.

Table 1.5 Respondents' Profile Experience based on IT Course

IT Experience	Frequency	Percentage (%)
Ever	45	60%
Never	30	40%
Total	75	100%

According to the table above, it can be seen that English Teachers who ever have experience toward IT Course are 45 (60%) which more

⁹² Ministry of Finance of Republic Indonesia. "Undang". <https://jdih.kemenkeu.go.id/fulltext/2005/14tahun2005uu.htm> (Accessed in 27 September, 2023).

⁹³ Mesta Limbong & Jitu Halomoan Lumbantoruan. "The Effect of Government Teacher Certification on Teaching Performance: Certified vs Uncertified". *Journal of Ultimate Research and Trends in Education*. 2022. 4(3).

⁹⁴ Donald Boyd, Daniel Goldhaber, Hamilton Lankford, & James Wyckoff. "The effect of certification and preparation on teacher quality". *JSTOR*. 17(1). (2017)

that they who never have experienced on IT Course which was number 30 (40%). The impact of IT Course in education is significantly important which made changes the whole educational system's paradigm.⁹⁵ Since the advancement of technology in this era, teachers require to have technological course or IT course in order to develop teachers' skill in educational environment. By qualifying IT in education, teachers can maximize learning and teaching activity, as improve their learning aids in teaching, method, strategies, and specifying learning goals in order to improve students understanding in specific subject.



⁹⁵ Abid Haleem, Mohd Javaid, Mohd Asim Qadri, & Rajiv Suman. "Understanding the Role of Digital Technologies in Education: A Review". *Sustainable Operations and Computers*. 2022.

B. Teachers' Technological Pedagogical and Content Knowledge (TPACK) Competence

1. Technological Knowledge (TK) Competence

Table 2.1 TK (Technological Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		1	2	3	4	5					
1	I know how to solve my own technical problems.		1	3	57	14	75	309	4,12	82,4	Good
2	I can learn various technology easily.		2	10	57	6	75	292	3,8933	77,87	Good
3	I keep up with important news technologies.		1	10	60	4	75	292	3,8933	77,87	Good
4	I frequently play around the technology.		2	9	57	7	75	294	3,92	78,4	Good
5	I know about a lot of different technologies.		4	15	50	6	75	283	3,7733	75,47	Good
6	I have the technical skills I need to use technology.		5	9	54	7	75	288	3,84	76,8	Good
7	I know about basic component of computer.		1	4	58	12	75	306	4,08	81,6	Good
8	I know how to use word processing program.		2	2	56	15	75	309	4,12	82,4	Good
9	I know how to use spreadsheet.		2	7	54	12	75	301	4,0133	80,27	Good
10	I know how to use presentation program.				56	19	75	319	4,2533	85,07	Very Good
11	I know how to use printer, scanner, projector, and digital camera.			2	54	19	75	317	4,2267	84,53	Good
12	I can store data in digital form. (Example: CD, DVD, Flash Disk)			1	51	23	75	322	4,2933	85,87	Very Good
13	I can save and change the data in various formats (Example: Convert Ms. Word file to PDF)		2		48	25	75	321	4,28	85,6	Very Good
14	I use internet as communication media.				48	27	75	327	4,36	87,2	Very Good
15	I use internet as my teaching source.			3	55	17	75	314	4,1867	83,73	Good
Total								4594	4,0836	81,67	Good

Based on the table above, it can be seen that teachers' competence on Technological Knowledge is averagely stable in a good result with number 81.7% which qualified a good categorized. The most agreeable statement in TK is "I keep up with important news technologies" which chosen by 60 respondents followed by 4 respondents chose strongly

agree, 10 respondents were neutral, yet there was 1 respondent chose disagree. It means that High School English Teachers in Banjarnegara have a good awareness through the importance of technology and the development of it. Technology has a massive role in educational field which teacher cannot resist, yet they should follow new changes of technological development.⁹⁶ On the other side, statement “I can save and change the data in various formats (Example: Convert Ms. Word file to PDF)” chosen by 25 respondents with 48 agree, and 2 disagree. Saving documents is a very basic skill that English Teachers should be acknowledge. Yet, there were respondents chose disagree, which means they should have an apprehension and a guide in order to increase their skill in the field of technology. Then, there was a statement revealed that have most dislike in this category, which was about the technical skills that need to use chosen by 5 respondents and 4 of them were chosen neutral. Although technical skill in technology is sometimes different in many fields, but it is important for teachers to have guidance in order to improve teachers’ skills in Technology. Furthermore, according to the table above, the highest percentage was on the statement “I use internet as communication media” which revealed that technology is also functioned as a communication tool which cannot be doubt that technology is a very important aspect that always needed in today’s daily life.

Technological competence is a significant knowledge that is being used in almost every human’ activity, even the user of technology is from all of today’s generations. Technological knowledge indeed in educational setting should be comprehend particularly by teachers. In the technological integration, the most important actor is a teacher, which brings the key of technological implementation in the

⁹⁶ Mark Goddard. “What Do We Do with These Computers: Reflection on Technology in the Classroom”. *Journal Research on Technology in Education*. 35(1). (2002)

classroom.⁹⁷ As stated by Mendikbud RI (2013) that cited in Mualim & Maulana (2023), Indonesian Government was supporting educators through Curriculum 2013 and the Merdeka Curriculum in which supposed to enhance students' learning quality and take the necessary steps of the digital era, also in world transmission.⁹⁸

According to the result above, Banjarnegara High School teachers' competence on Technological Knowledge (TK) have the average number of 81.67%. The result shows that they have a good level category in TK, so that it can be assumed that teachers have a good category in TK. Besides, TK is not only a knowledge about technology, yet TK also a knowledge about how TK can be utilized in the learning process. In educational field, TK commonly called as Information Communication and Technology (ICT). TK is tremendously significant for teachers, considering that TK is helpful in preparing, executing, arranging, and evaluating. Just as stated by Ramadan (2015) said that Technological enhancement or Information Communication and Technology (ICT) in English study can change the learning behaviors from steadily teacher-centered into student-centered learning.⁹⁹ That is in line with research from Koyuncuoğlu (2022) that digitalization and individual of people are connected, in which digitalization can transform people. Thus, technology must be acknowledged by teachers in order to raise students learning motivation, also develop learning requirements.

Teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice

⁹⁷ Wagiran. "Teacher Technological Competence: The Urgently to Improving Vocational High School Teachers Competence in Indonesia". (2011)

⁹⁸ Mendikbud RI. "Implementasi Kurikulum 2013". (p. 38). 2013. cited in Maulana Mualim & Fakhrezy Rizal Maulana. "EFL Teachers' TPACK and Their Espoused Used of ICT Based on SAMR Models". *ELT Echo: The Journal of English Language Teaching in Foreign Language Context*. 8(1). (2023).

⁹⁹ Mahmoud A. Ramadan. "The Effectiveness of Information and Communication Technologies (ICTs) on the Sustainable Efficiency of Education Learning Systematic Processes". *Proceedings of 4th Global Business and Finance Research Conference*. (2015).

response system, group text messaging, group audio messaging, file transferring, learning apps, and so on are the example of TK product that can be accessed that are pertinent into education, also be of service to various occasions.¹⁰⁰ Operating technology in the classroom, as simply as turn on projector and connect it to the laptop to show Power Point is a very basic skill that teachers should acknowledge. Additionally, TK is beneficial for teaching and learning process, for instance the use of technology back in pandemic era of Covid-19 which TK have digital product to assist both teachers and learners in educational aspect. In that moment, web-based learning or E-learning was used as a medium of learning.¹⁰¹ teachers were challenged to improve their technological ability in order to conduct the process of teaching and learning. Moreover, in that moment teachers should acknowledge various kinds of tools that can be used, solve technical problems that might be appear, find various technique in order to turn on students' motivations, and discover techniques that appropriate into the materials.

As reported in this research finding, teachers' TK competence that have very good level of category are from the implementation of technological tools, such as use presentation program, store data in digital form, saving data from various formats, and use internet as media of communication. It indicates that teachers already have the acknowledgement to implement technological tools. In addition, teachers have a good ability in using hardware such as printer, scanner, projector, and digital camera. As stated by Marcinkiewicz (2014), the existence of technological tools, such as a computer is expected to

¹⁰⁰ Avijit Dutta & Najmun Nessa. "Technological Competencies of Teachers in Teaching Learning Process and the Librarians' Role to Enhance the Technological Skills: A Study". *Library Philosophy and Practice (e-journal)*. 6706. 2022.

¹⁰¹ Erfan Wijayanti, Anggit P Nugroho, Andi M. M. Mursyid, & R Rahmawansyah. "Teaching EFL Students in Post-Pandemic Era: ICT Tools and Obstacle". *Al-Islah: Jurnal Pendidikan*. 15 (2). 2023.

enhance the quality and quantity in teaching.¹⁰² In the contrary, teachers' knowledge about various technology and technical skill are having the highest disagree scores, followed by 40% of teachers never have IT course. Thus, teachers should take part technological enhancement, such as IT Course.

2. Content Knowledge (CK) Competence

Table 2.2 CK (Content Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		SD	D	N	A	SA					
1	I have sufficient knowledge about literacy		1	4	64	6	75	300	4	80	Good
2	I can use a literary way of thinking.			8	61	6	75	298	3,9733	79,4667	Good
3	I have various ways and strategies of developing my understanding of literacy.		1	10	54	10	75	298	3,9733	79,4667	Good
4	I keep developing my knowledge repertoire in literacy.			9	60	6	75	297	3,96	79,2	Good
Total								1193	3,9767	79,5333	Good

Table 2.1.2 shows that teachers' Content Knowledge (CK) competence is averagely in 79.53% with the agree answer were mostly more than equal to 60 respondents, and the lowest was 54 respondents from the statement "I have various ways and strategies of developing my understanding of literacy" which followed by neutral and strongly agree with the same number. Furthermore, there was 64 respondents of English Teacher in Banjarnegara that agree with the statement "I have sufficient knowledge about literacy". It means that they have a good their knowledge comprehension toward literacy is in a good number. Even though there was 1 respondent who was disagree in that statement

¹⁰² Hendryk R. Marcinkiewicz. "Computer and Teachers: Factors Influencing Computer Use in the Classroom". *Journal of Research on Computing in Education*. 26(2). (1993). ([Doi.10.1080/08886504.1993.10782088](https://doi.org/10.1080/08886504.1993.10782088))

which means they do not have enough sufficient knowledge in literacy, this followed by the statement “I have various ways and strategies of developing my understanding of literacy” which unfortunately means that there were still respondents that does not know how to improve their knowledge about literacy. Yet, apart from those disagree answer, from the table above can be concluded that teachers’ competence on CK is on a good level.

The concepts, principles, relationships, procedures, and applications a student should be familiar with within a certain academic subject, appropriate for his or her and organization of the information, are referred to as content knowledge.¹⁰³ A stated in Chapter II, content knowledge is knowledge about what teachers should provide and what students were expected to perceived. In short, content knowledge is teachers’ ability in specific content that the teacher master with. For example, an English Teachers should acknowledge grammar, fluent in speaking, able to differentiate between the use of formal and informal language using English and acknowledge if there were something error in the content or materials. Thus, when teachers have that ability, they will easily find a way to teach English using various methods or techniques. This is obedient with research from Shulman (1986) in his research, he said that:

- a. Teachers should have understanding educational principles, practices, and theories as well as applying the subject matter. In this case deep acknowledgement of English is useful.
- b. The capability to create instructional resources.
- c. Information that is pertinent and important concerning the topic.
- d. Strengthens the subject lecture by giving students tasks.¹⁰⁴

¹⁰³ Mustafa ÖZDEN. “The Effect of Content Knowledge on Pedagogical Content Knowledge: The Case of Teaching Phases of Matters”. *Educational Science Theory & Practice*. 8 (2). 2008.

¹⁰⁴ Lee S. Shulman. “Those Who Understand: Knowledge Growth in Teaching”, *Educational Researcher*, 57(2). (1986): 4-14.

According to the result above, High School English Teachers in Banjarnegara Regency have average score 3.97 out of 5 which is excellently in a good category. This finding is line with the research from Zulaiha et al (2020), they investigate about teachers' assessment Literacy in Indonesian Teachers' Perceptions and Classroom Practice. One of the findings in this research was revealed that Indonesian Teachers have excellent comprehension toward teachers' assessment literacy in specific context, as they interpret and engage with assessment materials and stakeholders.¹⁰⁵ In contrast, according to survey from Indeks Pembangunan Literasi Masyarakat (IPLM) in 2022, Indonesian literacy was about 64.48 out of scale 1-100.¹⁰⁶ That is insignificant amount of literacy level. Thus, this is one of teachers' responsibility in order to increase students in education literacy.

¹⁰⁵ Siti Zulaiha, Herri Mulyono, & Lies Ambarsari. "An Investigation into EFL Teachers' Assessment Literacy: Indonesian Teachers' Perceptions and Classroom Practice". *European Journal of Contemporary Education*. 9(1), (2020).

¹⁰⁶ Dewan Perwakilan Rakyat Republik Indonesia-DPR RI. "Ini Alasan Syaiful Huda Prihatin dengan Indeks Literasi Indonesia". (2023).
https://www.google.com/search?sca_esv=571764422&sxsrf=AM9HkKnsKmxMBUK4S5Kg007J8wEHNWxfA:1696796065523&q=Pada+tingkat+berapakah+literasi+masyarakat+Indonesia%3F&sa=X&ved=2ahUKEwjznvfl0eeBAxW5SGwGHc43D3gQzmd6BAgXEAY, accessed in 9 October, 2023)

3. Pedagogical Knowledge (PK) Competence

Table 2.3 PK (Pedagogical Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		SD	D	N	A	SA					
1	I know how to assess student performance in a classroom.			1	58	16	75	315	4,2	84	Good
2	I can adapt my teaching based-upon what students currently understand or do not understand.			3	60	12	75	309	4,12	82,4	Good
3	I can adapt my teaching style to different learners.			6	58	11	75	305	4,06667	81,3333	Good
4	I can use wide range of teaching approaches in classroom setting.		1	10	58	6	75	294	3,92	78,4	Good
5	I am familiar with common student understandings and misconceptions.		1	9	55	10	75	299	3,98667	79,7333	Good
6	I know how to organize and maintain classroom management.		1	4	57	13	75	307	4,09333	81,8667	Good
Total								1829	4,06444	81,2889	Good

According to the table 2.1.3, it can be seen that the most strongly agree statement was on “I know how to assess student performance in classroom” with number of 16 respondents. Moreover, the highest percentage on teachers PK competence was on the statement number one. Since assessing students’ learning is very significant to acknowledge, in which aspects that students good or bad at. Yet, overall High School English Teachers in Banjarnegara was in a good categorized.

Based on the finding above, English Teachers in Banjarnegara have 4.064 average from the total scores. It means that teachers have a good level category on their PK, yet this competence is the second lowest competence based on the result finding. PK competence is about how teachers could instruct students and manage their classroom. It is important for teacher to know students’ characteristics and connect with students in order to have a good interaction in the classroom and to discover students’ difficulties.

According to Shulman (1987), pedagogical knowledge is a base of teacher's knowledge where cross-curricular classroom management and organizing ideas and practices.¹⁰⁷ In order to manage the teaching process, teachers need problem solving to maintain and organize the classroom management. Then, in managing the classroom, teachers have to make a lesson plan that linked to the current curriculum that implemented in the school. In lesson plan, teachers could consider method or strategy that will be used in the classroom, adapting teacher's teaching style into appropriate content, and assess students understanding, also teachers could adapt the lesson connected into current students' understanding.

Related to pedagogical knowledge, it is important for teachers to have a certification. It is because in order to get a certification, teachers should attend some classes, written and spoken test, also teaching practices. In addition, there is one of pre-service teachers should accomplish which is micro teaching and macro teaching. Micro teaching is where pre-service teachers practice to teach in front of tight students and limited time, then macro teaching is where pre-service teachers practice in front of real students in the classroom with proper time, preparation and evaluation. According to Kartal et al (2012), microteaching techniques significantly increase preservice science teachers' pedagogical subject understanding, which is high in terms of teaching a concept or principle and high and low in terms of concluding and evaluating the course.¹⁰⁸ Moreover, Laughlin & Moulton (1975) describe that microteaching is a performance training technique created to separate the component parts of the teaching process, allowing the students to master each component one at a time in a more

¹⁰⁷ Lee S. Shulman. "Knowledge and Teaching: Foundations of the New Reform". *Harvard Educational Review*, 57(1). (1987).

¹⁰⁸ T Kartal, N Ozturk, & G Ekici. "Developing Pedagogical Content Knowledge in Preservice Science Teachers Through Microteaching Lesson Study". (2012).

straightforward teaching environment.¹⁰⁹ In this research, 64 teachers have done certification and the rest 11 teachers did not complete certification yet. It means that English teachers in Banjarnegara Regency already have a good qualification to be a teacher.

4. Pedagogical Content Knowledge (PCK) Competence

Table 2.4 PCK (Pedagogical Content Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	CAT.
		SD	D	N	A	SA					
1	I can select effective teaching approaches to guide student thinking and learning in literacy.			6	58	11	75	305	4,06667	81,3333	Good
2	I make my own lesson plan.			8	58	9	75	301	4,01333	80,2667	Good
3	I can make difficult lesson easier for students to understand.		1	7	56	11	75	302	4,02667	80,5333	Good
4	I make questions by my own to measure my students' understanding towards the lesson.			3	58	14	75	311	4,14667	82,9333	Good
Total								1219	4,06333	81,2667	Good

According to the table 2.1.4 above, Banjarnegara High School English Teachers competence on Pedagogical Content Knowledge was on a good category. The average of teachers' competence was 4.06, then the average of the percentage was 81.27%. The highest level of strongly agree was on the statement "I make questions by my own to measure my students' understanding towards the lesson" with number 14 respondents. Moreover, the agree answer were on a solid score with above 55 respondents. It shows a great number which teachers can make their own questions to measure students' understanding, which it can be assumed that teachers know students' ability and they know how to measure them adjusted by their ability of the lesson. In contrast, there is a disagree answer which voted by 1 respondent of the statement "I

¹⁰⁹ Stephen Mc Laughlin & Jeanne Moulton. "Evaluating Performance Training Methods: A Manual for Teacher Trainers". *Massachusetts: Center for International Education University of Massachusetts*. (1975).

can make difficult lesson easier for students to understand” that means there was still teacher who doesn’t know how to implement their competence in order to modify the lessons that should be comprehend by students.

PCK refers to combination of Pedagogical Knowledge and Content Knowledge. This competence is basically about “what” means the content and “how” means the pedagogy. This competence provides teaching withing subject matter knowledge. Furthermore, Grossman (1990) expands the idea of PCK to include four key components, as follow:

1. Knowledge and ideas regarding the objectives of teaching a subject at various grade levels.
2. Knowledge of students’ grasp, perceptions, and misconceptions about specific issues in a subject.
3. Curriculum knowledge involves knowledge of curriculum resources available for teaching certain subject matter, as well as knowledge of both the horizontal and vertical curricula for a subject.
4. Understanding of instructional strategies and representations for teaching specific topics.¹¹⁰

Those components explain revealed that teachers should have knowledge of the content related to the curriculum, knowledge about students’ belief and behaviour, also knowledge about strategies in order to enhance the quality of learning.

¹¹⁰ P L Grossman. “The making of a teacher: Teacher Knowledge and Teacher Education”. *Ney York: Teachers College Press. 1990.*

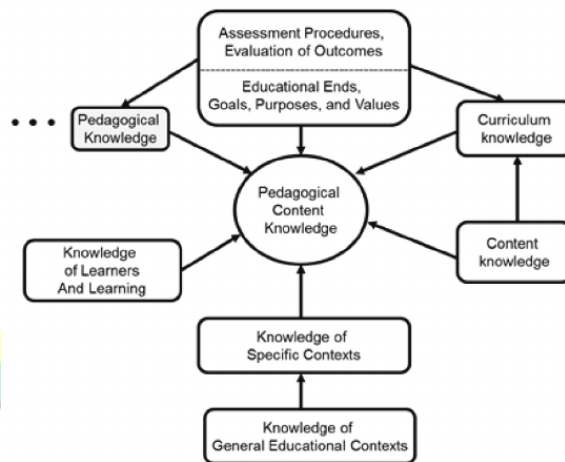


Figure 3.1 Pedagogical Content Knowledge

According to the graphic above, it is clear that PCK include assessment procedures and evaluation of outcome, curriculum knowledge, knowledge of learners and learning, knowledge of specific contexts, and knowledge of general educational contexts. Related to the result above, teachers in Banjarnegara Regency have a good category in which result 81.26%. generally, teachers can make their own lesson plan based on curriculum that implemented in the school, choose effective strategies in teaching and learning related to specific content matter, and evaluating students in the learning process. This is in line with research from Magnusson et al (2017) that cited in Herawati (2021) that teacher should have 5 components, such as:

1. Orientation of teaching (knowledge about content materials of specific study field and the confidence about how the content will be taught).
2. Knowledge about curriculum.
3. Knowledge about assessment.
4. Knowledge about students understanding of the lesson.
5. Knowledge about teaching strategies.¹¹¹

¹¹¹ Herawati. "Kompetensi Technological Pedagogical Content Knowledge (TPACK) Guru Kimia". (2021).

5. Technological Content Knowledge (TCK) Competence

Table 2.5 TCK (Technological Content Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		SD	D	N	A	SA					
1	I know about technology that I can use for understanding and doing literacy.			5	60	10	75	305	4,0667	81,33	Good
2	I know computer applications related to literacy.		1	6	56	12	75	304	4,0533	81,07	Good
3	I use the technologies to develop learning activity and students' tasks.		1		58	16	75	314	4,1867	83,73	Good
4	I use technologies as my source to develop my own knowledge.	1		3	56	15	75	309	4,12	82,4	Good
Total								1232	4,1067	82,13	Good

“I use technologies as my source to develop my own knowledge” was the statement that voted strongly disagree by 1 respondent. It shows that there are still teachers who do not know the way they can develop their knowledge using technologies. However, strongly agree in that statement also have the second highest answer with 15 number of respondents after the statement “I use the technologies to develop learning activity and students’ tasks” with 16 answers. Yet, even though there is an average number of 1 respondent chose strongly disagree on TCK, the answer of agree was still high, which was chosen by 56 respondents. After that, the most agree answer was from 60 number of respondents on the statement “I know about technology that I can use for understanding and doing literacy”. After all, teachers have good knowledge about literacy and the implementation, yet some of them still have difficulties to choose technological tools in teaching, to find proper specific kind of technological to increase students learning behavior and students’ tasks, also in developing their knowledge using technology. As a matter of fact, English Teachers’ competence in Banjarnegara Regency on TCK was in a good categorized that have 82.1% and the average was 4.107.

According to the result above, TCK is the highest percentage with 82.13%. It can be concluded that English Teachers in High School level at Banjarnegara Regency can acknowledge technology and its implication as related to the content in teaching and learning activity. In TCK, technology used to provide teaching and learning in the classroom using appropriate technological tools. For instance, research from Sallamah & As-Sabiq (2020), they were using Instagram as a media in teaching writing recount text, they use experimental research which resulted that Instagram was helpful in writing recount text with number of mean in experimental class was higher than the control class as $79.461 > 67.142$.¹¹² Thus, any technological tools is useful in teaching English, as there is suitability at the technological tools and the content matter.

“I use technologies to develop learning activity and students’ task” was the statement that have highest answer of strongly agree. It means that High School Teachers in Banjarnegara Regency have an excellent awareness of the importance of technology. Technology is restricting content as just to specific content and vice versa.¹¹³ This is because specific technology offers some features that may only applicable into specific content. Yet, teachers’ creativity in this case is matter. Therefore, when it followed by appropriate teaching strategy and teachers’ creativity, TCK will be successfully combine in teaching and learning process.

Teachers’ knowledge about combining content and technology is very beneficial to construct teaching and learning process. For instance, there is research from Muallim et al (2019), they find the strength and pitfalls of Google Application to Gen-Z students in learning hybridity.

¹¹² Ismi B. Sallamah & Agus Husein As-Sabiq. “Does Instagram as Learning Media Affect Studetns’ Writing Skill on Recount Text?: An Experimental Research”. *Journal of Research and Innovation in Language*. 2(3). (2020).

¹¹³ Zakiatul Fuada. “Analisis Kemampuan Technological Content Knowledge (TCK) Pada Mahasiswa Program Studi Pendidikan Guru Sekolah Dasar”. *Jurnal Kajian Teknologi pendidikan*. 3(3). (2020).

The study was found that the use Of Google Classroom Application was compelled to the students.¹¹⁴ It means that teacher can successfully combine technological and content knowledge in teaching English. In the contrary, Putri (2019) claimed that most of the problems for teachers was Technological Content Knowledge (TCK).¹¹⁵ It means that teacher have lack of ability toward the technology and content knowledge, and how the implementation of them.

6. Technological Pedagogical Knowledge (TPK) Competence

Table 2.6 TPK (Technological Pedagogical Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		SD	D	N	A	SA					
1	I can choose technologies that enhance the teaching approaches for a lesson.			7	57	11	75	304	4,0533	81,07	Good
2	I can choose technologies that enhance students' learning for a lesson.			3	61	11	75	308	4,1067	82,13	Good
3	My teacher education program has caused me to think more deeply about how technology could influence the teaching approaches I use in my classroom.		1	9	54	11	75	300	4	80	Good
4	I am thinking critically about how I use internet as communication to use technology in my classroom.			11	55	9	75	298	3,9733	79,47	Good
5	I can adapt the use of the technologies that I am learning about to different teaching activities.			4	63	8	75	304	4,0533	81,07	Good
6	I can select technologies to use in my classroom that enhance what I teach, how I teach, and what students learn.		1	3	61	10	75	305	4,0667	81,33	Good
7	I can use strategies that combine content, technologies and teaching approaches that I learn about in my coursework in my classroom.			10	56	9	75	299	3,9867	79,73	Good
8	I can provide leadership in helping others to coordinate the use of content, technologies and teaching approaches at my school and/or district.			14	55	6	75	292	3,8933	77,87	Good
9	I can choose technologies that enhance the content for a lesson.			5	63	7	75	302	4,0267	80,53	Good
Total								2712	4,0178	80,36	Good

¹¹⁴ Maulana Mualim, Desi Wijayanti Ma'ruffah, & Endang Sartika. "The Strengths and Pitfalls of Google Classroom Application to Gen-Z Students' Learning Hybridity". *Proceeding of International Conference on Islamic Education (ICIED)*, 4(1). (2019).

¹¹⁵ Putri, Salma Eka. "The Implementation of TPACK in Teaching Writing Recount Text in a Senior Highschool Level". *RETAIN*. 7(2). (2019).

“My teacher education program has caused me to think more deeply about how technology could influence the teaching approaches I use in my classroom” was agreed by 54 respondent which followed by 11 strongly agree, 9 neutral, 1 disagree, and 0% strongly disagree. It shows multiple answer of the way how teachers perform give influence over their students in teaching and learning process. Furthermore, “I can adapt the use of the technologies that I am learning about to different teaching activities” has the same number of agree with the statement “I can choose technologies that enhance the content for a lesson”. That can be assumed that teachers can adjust technology that appropriate into each of activities in the teaching and learning. Generally, teachers’ competence on TPK shows that they can adjust technology and their pedagogical knowledge in the process of teaching and learning activities. In TPK competence, the average of percentage for all of items was 80.4% with average of teachers’ competence based on the result was 4.018.

According to the data, TPK has excellent average number with 4.01. This means that High School English Teachers in Banjarnegara Regency have a good competence in TPK. TPK combine Technological knowledge and Content Knowledge which teachers can utilize specific tool of technology to assist teaching and learning process. This is in line with to Schmidt et al (2009), TPK means the way numerous of technology can be integrated in teaching, also to make an acknowledgement of technology that it could be modify the way teachers teach.¹¹⁶ Thus, ICT gives a big contribution in teaching English for EFL learners.¹¹⁷ Furthermore, the use of technology and its implementation will increase literacy for teachers and lead students to

¹¹⁶ Denise A. Schmidt, Evrim Baran, Ann D. Thompson, Punya Mishra, Matthew J. Koehler, & Tae S. Shin. “Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher”, *JRTE*, 42(2). 123-149. 2009.

¹¹⁷ Dilek Çakici. “The Use of ICT IN Teaching English as a Foreign Language”. *Participatory Educational Research (PER)*. 2016.

a better learning environment. TPK is the ability to use it and adapt it, is a vital aspect in generating and gaining riches, power, and knowledge in our day.

Moreover, statement number 3, said that “My teacher education program has caused me to think more deeply about how technology could influence the teaching approaches I use in my classroom” have 11 strongly agree, 54 agree, 9 neutral, and 1 disagree. It means that most of teachers considered that their education teacher has a big role in their academic experience. This is in line with the research from Afzal et al (2023), they were found that there is powerful relationship between teachers and students, and it had a substantial impact toward students’ academic achievement.¹¹⁸ Thus, teachers should give all of the best for their performance in teaching English.

7. Technological Pedagogical and Content Knowledge (TPACK) Competence

Table 2.7 TPACK (Technological Pedagogical and Content Knowledge) Score

No.	Statement	Answer					N	Total	Mean	P	Cat.
		SD	D	N	A	SA					
1	I can teach lessons that appropriately combine literacy, technologies, and teaching approaches.		1	7	61	6	75	297	3,96	79,2	Good
2	I help my colleagues to understand how to integrate literacy, technologies, and teaching approaches.		1	14	53	7	75	291	3,88	77,6	Good
3	I use various approaches with various software to enhance students’ understanding in learning literacy.		2	19	49	5	75	282	3,76	75,2	Good
Total								870	3,86667	77,333	Good

It can be seen from table 2.7 about Teachers TPACK Competence above, 61 respondents answered that they are agree on the statement “I

¹¹⁸ Dr Ayesha Afzal, Shahid Rafiq, & Ayesha Kanwal. “The Influence of Teacher-Student Relationship on Students’ Academic Achievement at University Level”.

can teach lessons that appropriately combine literacy, technologies, and teaching approaches”, yet the highest number of disagree was on the statement “I use various approaches with various software to enhance students’ understanding in learning literacy” which voted by 2 respondents, yet the rest of the statements were having 1 respondent who disagree. Thus, means that teachers can combine literacy, technologies, and teaching approaches in the process of teaching and learning, yet some of them are disagree that they can use many software that can improve students’ development in learning literacy. The result above shows variation of answer that teachers consider their competence on TPACK and its implication on teaching and learning process. To sum up, High School English Teachers’ Competence in Banjarnegara Regency has 77.33% and the average number was 3.8667 that shows an outstanding result with good category.

Teachers’ Technological Pedagogical and Content Knowledge (TPACK) is the combination from all of 6 components above. TPACK help teachers to enhance teaching process from the preparation, execution, and evaluation using appropriate technology of related content. According to Mishra & Koehler (2006), TPACK is a foundation of excellent technology-enhanced teaching and entails a grasp of the conveying of ideas using technologies.¹¹⁹ Therefore TPACK help teachers in many aspects of teaching. Finding of this study showed that English Teachers’ Competence on TPACK in Banjarnegara Regency was on the lowest percentage among other 6 competence with number of percentages 77.33%, yet it still in a good category level.

The implementation of TPACK in the classroom is very beneficial in order to conduct teaching and learning process when all of the element of TPACK can be possessed by teachers. The use of technological tools and literacy knowledge will enhance effective learning in the classroom.

¹¹⁹ Matthew J. Koehler & Punya Mishra. “Technological Pedagogical Content Knowledge: A New Framework for Teacher Knowledge”. *Teachers College Record*, 108(6). (2006)

As research from Putri (2019), in her research, she implemented TPACK in the classroom in order to enhance students' writing recount text in Senior High School Level, moreover, the finding showed that students have better grasp toward the lesson, they were more involved into the learning activity, and teacher have maximized the technological performance.¹²⁰

From all of 7 components before, all of them were categorized in a good category which means that High School English Teachers in Banjarnegara have a good category in their competence over TPACK. The result of each component can be seen in the figure 2.1 below:

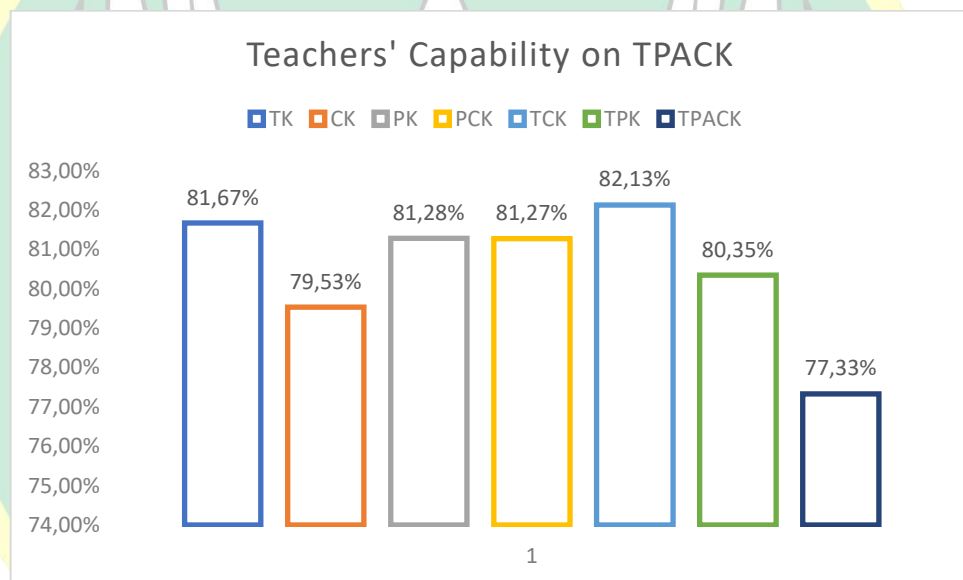


Figure 2.1 English Teachers' Competence on TPACK

From the chart above, it can be seen that English Teachers' Competence on TPACK in Banjarnegara Regency was on a good category, which the lowest percentage was on TPACK Competence, whether the highest competence was on TCK. In addition, to answer the research question which was to find the level of High School English Teachers' Competence on Technological Pedagogical and Content Knowledge (TPACK) in Teaching

¹²⁰ Salma Eka Putri. "The Implementation of TPACK in Teaching Writing Recount Text in a Senior High School Level". *RETAIN*. 7(2). (2019)

English at Banjarnegara Regency, this study will discuss teachers' competence on each component of TPACK according to the data result.

To conclude, by the average level of good category, this study has proven that TPACK can help teachers in teaching English by implementing it in the classroom. Moreover, this study was proving the theory from Mishra & Koehler (2008) that the successfulness of TPACK in teaching English is by integrating technology into the classroom, teachers must understand the complex connections between content, pedagogy, technology, and knowledge of the educational context, including knowledge of students, the school, the learning infrastructure, and the environment.



CHAPTER V

CONCLUSION, IMPLICATION, AND SUGGESTION

A. Conclusion

The result of this study showed that teachers had a good category on their TPACK competence with the seventh domains in it. It shown by the percentage data from the questionnaire are averagely in a good category for each domain. The seventh domain obtained followed by the percentage result are: Technological Knowledge (TK): 81.7%, Content Knowledge (CK): 79.53%, Pedagogical Knowledge (PK): 81.28%, Pedagogical Content Knowledge (PCK):81.27%, Technological Content Knowledge: 82.13%, Technological Pedagogical Knowledge (TPK): 80.35%, and Technological Pedagogical and Content Knowledge (TPACK): 77.33%.

Following the result data of questionnaire, it can be concluded that the result of the study on English Teachers' Competence on TPACK were in a good category. The data result shown that agree was the highest answer, yet unfortunately there was one answer of strongly disagree, and some of them also have disagree answer. The disagree result was on TCK component, where the statement was "I use technologies as my source to develop my own knowledge". Since some of English teachers answered strongly disagree and disagree, it is highly important to acknowledge that teachers know their own competence. Thus, it is important for teachers to have technological and pedagogical training, take part in government program or any related field program, and learn to maximize the use of TPACK in the classroom.

B. Limitation of the Study

Even though this study was conducted as well as possible, this study still has many limitations, as follow:

1. In the process of collecting data in the field, the sample of this study were limited that was from under the Department of Education and Culture, also under teachers' MGMP Community.
2. Not all population of this study filled out the questionnaire data collection.
3. This study was only using questionnaire as data collection technique.
4. This study only focused on teachers' self-assessment without confirming considerations they chose the answer.
5. This research was limited to an evaluation without providing training and solutions of how teachers develop their knowledge and competence toward TPACK.

C. Suggestions

1. For Teachers
 - From the data result above, it is important for teachers to have self-awareness in order to acknowledge what are their strength and their weakness. Therefore, they can improve their knowledge and competence through self-learning or many related programs.
 - Teachers need to improve their creative and innovative skills in order to enhance teaching and learning quality in the classroom. Thus, it will make students enhance their motivation in learning English.
 - Teachers need to take part in workshop or related program to enhance their knowledge and competence in TPACK, so that they can implement it in the classroom.
 - Teachers need to implement technological tools and provide it with pedagogy and specific content as to enhance learning quality.
2. For schools
 - Schools are recommended to assist teachers and students with technological tools, teachers can develop their skill in utilizing technology, also provide students with basic knowledge of technology.
3. Further Research

- The next researchers can take wider population and sample in order to represent specific area. Furthermore, next researchers should take direct observation and interview, so that the data will be richer and more detailed, also find teachers consideration when filled out the questionnaire and discover factors of teachers' obstacles in TPACK.
- The next researchers can discover teachers the different capabilities on teachers based on their specific background and their capabilities on TPACK. Thus, it will be easier to evaluate teachers on their TPACK competence.



REFERENCES

- “Data SMA dan SMK Kab. Banjarnegara”. (<https://www.umm.ac.id/id/pages/jawa-tengah/data-sma-dan-smk-kab-banjarnegara.html>, accessed at 14 May 2023)
- Abduh, Muhammad & Zainuddin, Almuntaqo. “The Role of Indonesian Teachers’ Competencies in Developing Child-Friendly School”. *International Conference on Child-Friendly Education 2016*. Surakarta, Indonesia. (2016)
- Adams, Constance. “TPACK Model: The Ideal Modern Classroom”. Technology and the Curriculum: Summer 2019, Ohio Tech University. 2019.
- Afzal, Dr Ayesha., Rafiq, Shahid., & Kanwal, Ayesha. “The Influence of Teacher-Student Relationship on Students’ Academic Achievement at University Level”.
- Alhababi, Hamah Hasan. “Technological Pedagogical Content Knowledge (TPACK) Effectiveness on English Teachers and Students in Saudi Arabia”. *Dissertations*. (2007)
- Al-Oteawi, Saleh Mohammed. “Theceptions o Administrators and Teachers in Utilizing Information Technology in Instruction, Administrative Work, Technology Planning and Staff Development in Saudi Arabia”. *Doctoral dissertation, Ohio University, Ohio*. (2002).
- Alqodri, Kholid. “An Analysis of Teachers’ Pedagogical Competence in Teaching English at Seventh Grade of the Second Semester of MTSN 1 Way Kanan in the Academic Year of 2020/2021”. *Thesis*.
- ANSW Government Website-Education, “Enhancing Teacher Capabilities-NSW Department of Education”, (<https://education.nsw.gov.au/teaching-and-learning/school-excellence-and-accountability/school-excellence-in-action/enhancing-teacher-capabilities>, accessed at 14 May 2023)
- Archambault, Leanna M., & Barnett, Joshua H. “Revisiting technological pedagogical content knowledge: Exploring the TPACK framework”, *Computers & Education*, 55. (2010):1656-1662.
- Aryati, Septian Nur. “Teachers’ Pedagogical Content Knowledge (TPACK) in Teaching EFL Learners During Covid-19 Pandemic (A Comparative Study Between Rural & Urban Teachers)”. *Thesis*
- Auliyah, Silmi. “Teachers’ Perspective on the Implementation of Information and Communication Technology (ICT) in English Language Teaching. (2022). *Thesis*.
- Ayu, Mutiara., Pratiwi, Zakiyah Farhanah. “The Implementation of Online Learning in English Language Teaching During Pandemic: The Teachers’ Voice”, *Journal of Research on Language Education (JoRLE)*, 2(2), (2021):93-99.
- Ball, D. L., Thames, M. H., & Phelps, G. “Content knowledge for teaching: What makes it special?” *Journal of Teacher Education*, (2008). 59, 389–407 cited in Ward, Phillip., Kim, Insook., Ko, Bomna., & Li, Weidong. “Effects of

- Improving Teachers' Content Knowledge on Teaching and Student Learning in Physical Education". *Research Quarterly for Exercise and Sport*. (2014). (DOI: 10.1080/02701367.2014.987908)
- Ball, Deborah Loewenberg., Thames, Mark Hoover., & Phelps, Geoffrey. "Content Knowledge for Teaching: What Makes It Special?". *Journal of Teacher Education*. (2008). (DOI: 10.1177/0022487108324554)
- Banegas, Dario Luis. "Content Knowledge in English Language Teacher Education: International Experiences". Bloomsbury. 2020.
- Biora, Selamat., Arafat, Yasir, & Mulyadi, M. "The Influence of Teachers' Professional Competency and Working Dicipine on Teachers' Performance at State Elementary School". *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(2). (2021): 514-524. (DOI: <https://doi.org/10.29210/021082jpgi0005>)
- Blurton, C., "New Directions of ICT-Use in Education". (Available online <http://www.unesco.org/education/educprog/lwf/dl/edict.pdf>; accessed 14 May 2023)
- Boyd, Donald., Goldhaber, Daniel., Lankford, Hamilton., & Wyckoff, James. "The effect of certification and preparation on teacher quality". *JSTOR*. 17(1). (2017)
- Çakici, Dilek. "The Use of ICT IN Teaching English as a Foreign Language". *Participatory Educational Research (PER)*. 2016.
- Chiong, Charleen., Menzies, Loic., & Parameshwaran, Meenakshi. "Why do long-serving teachers stay in the teaching profession? Analysing the motivations of teachers with 10 or more years' experience in England". *British Educational Research Journal*. (2017)
- Cox, Susan Marie. "A Conceptual Analysis of Technological Pedagogical Content Knowledge". *Unpublished Theses and Dissertations: Brimingham Young University*. 2008.
- Cox, Suzy., & Graham, Charles R. "Using an Elaborated Model of the TPACK Framework to Analyze and Depict Teacher Knowledge". *TechTrends*, 53(60). (2009): 60-69. (<https://doi.org/10.1007/s11528-009-0327-1>)
- Denise A., et al. "Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher", *JRTE*, 42(2). (2009):123-149., Sahin Ismail. "Development of Survey of Technological Pedagogical and Content Knowledge (TPACK)", *TOJET: The Turkish Online Journal of Educational Technology*, 10(1). (2011).
- Destriani, Isti., Setyarini, Sri., & Rodliyah, Rojab. "Other Discoveries Regarding TPACK of English Teachers", *Issues in Applied Linguistics and Language Teaching*, 4(2), (2002): 125-131.
- Dewan Perwakilan Rakyat Republik Indonesia-DPR RI. "Ini Alasan Syaiful Huda Prihatin dengan Indeks Literasi Indonesia". (2023). (https://www.google.com/search?sca_esv=571764422&sxsrf=AM9HkKnsKmxMBUK4S5Kg007J8wEHNWxfA:1696796065523&q=Pada+tingkat+berapakah+literasi+masyarakat+In)

- donesia%3F&sa=X&ved=2ahUKEwjznvfl0eeBAxW5SGwGHc43D3gQzmd6BAgXEAY, accessed in 9 October, 2023)
- Dobson, G. "A Guide to Writing Competency Based Training Materials", *Melbourne: National Volunteer Skills Centre*. (2003): p.8.
- Drajati, Nur Arifah, et al. "Investigating the Adoption of TPACK-21 CL by English Pre-service Teachers in a COVID-19 Teaching Practicum", *Indonesian Journal of Applied Linguistics*. 11(1), (2021): 124-133.
- Dutta, Avijit., & Nessa, Najmun. "Technological Competencies of Teachers in Teaching Learning Process and the Librarians' Role to Enhance the Technological Skills: A Study". *Library Philosophy and Practice (e-journal)*. 6706. 2022.
- Epstein, Ronald M. & Hundert, Edward M. "Defining and Assessing Professional Competence". *JAMA*. 287 (2). (2002)
- Fuada, Zakiatul. "Analisis Kemampuan Technological Content Knowledge (TCK) Pada Mahasiswa Program Studi Pendidikan Guru Sekolah Dasar". *Jurnal Kajian Teknologi pendidikan*. 3(3). 2020.
- Goddard, Mark. "What Do We Do with These Computers: Reflection on Technology in the Classroom". *Journal Research on Technology in Education*. 35(1). (2002)
- Goldhaber, Dan D. & Brewer, Dominic J. "Evaluating the Effect of Teacher Degree Level on Educational Performance". (1996)
- Grossman, P L. "The making of a teacher: Teacher Knowledge and Teacher Education". *New York: Teachers College Press*. 1990
- Guerriero, Sonia. "Teachers' Pedagogical Knowledge and the Teaching Profession: Background Report and Project Objectives".
- Guichon, Nicolas., & Hauck, Mirjam. "Editorial: Teacher Education Research in CALL and CMC: More in Demand Than Ever". *European Association for Computer Assisted Language Learning*. 23(3): 187-199. (2011). (doi:10.1017/S0958344011000139).
- Hager, Paul., & Gonczi, Andrew. "What is competence?". *Medical Teacher*. 18(1). (2009).
- Haleem, Abid., et al. "Understanding the Role of Digital Technologies in Education: A Review". *Sustainable Operations and Computers*. 2022.
- Herawati. "Kompetensi Technological Pedagogical Content Knowledge (TPACK) Guru Kimia". (2021)
- Hume, Ann., Cooper, Rebecca., & Borrowski, Andreas. "Repositioning Pedagogical Content Knowledge in Teachers' Knoeledge in Teachers' Knowledge for Teaching Science". *Spinger Nature Singapore*. (2019). (<https://doi.org/10.1007/978-981-13-5898-2>).
- Irwanto, I., Redhana I. W., & Wahono B. "Examining Perception of Technological Pedagogical Content Knowledge (TPACK): A Perspective from Indonesian Pre-Service Teachers". *Jurnal Pendidikan IPA Indonesia*. 11(1) (2022): 142-154. (DOI: 10.15294/jpii.v11i1.32366)
- Jansem, Anchalee. "'Professionalism' in Second and Foreign Language Teaching: A Qualitative Research Synthesis". 11(1). (2018). (doi:10.5539/ies.v11n1p141)

- Kartal T., Ozturk, N., & Ekici, G. "Developing Pedagogical Content Knowledge in Preservice Science Teachers Through Microteaching Lesson Study". 2012.
- Kaware, Sudhir Sudam., & Sain, Sunil Kumar. "ICT Application in Education: An Overview". *International Journal of Multidisciplinary Approach and Studies*. Vol. 2(1). (2015).
- Knolton, Davin V. "Technological, Pedagogical, Content Knowledge (TPACK): An Exploratory Study of Adjunct Faculty Technology Proficiency". (2014)
- Koehler, Matthew J., & Mishra, Punya. "Technological Pedagogical Content Knowledge: A New Framework for Teacher Knowledge". *Teachers College Record*, 108(6). (2006)
- Koehler, Matthew J., Mishra, Punya., & Cain, William. "What is Technological Pedagogical Content Knowledge (TPACK)?"'. *Journal of Education*, 193(3). (2013).
- Koehler, Matthew J., Mishra, Punya., & Yahya, Kurnia. "Tracing the Development of Teacher Knowledge in a Design Seminar: Integrating Content, Pedagogy and Technology". *Computer & Education* 49. 740-762. (2007). (doi:10.1016/j.compedu.2005.11.012).
- Koh, Joyce Hwee Ling., Chai, Cing Sing., Hong, Huang-Yao., & Tsai, Chin Chung. "A Survey to Examine Teachers' Perception of Design Dispositions, Lesson Design Practices, and Their Relationships with Technological Pedagogical Content Knowledge (TPACK)". *Asia-Pacific Journal of Teacher Education*. (2014). (<http://dx.doi.org/10.1080/1359866X.2014.941280>).
- Kozikoğlu, İshak., & Babacan, Nuri. "The Investigation of the Relationship Between Turkish EFL Teachers' Technological Pedagogical Content Knowledge Skills and Attitudes Towards Technology". *Journal of Language and Linguistic Studies*, 15(1). (2019): 20-33.
- Lang, N C. Group Work Practice to Advance Social Competence: A Specialized Methodology for Social Work". *New York: Columbia University Press*. (2010) in Genute Gedviliene, S Gerviene, A Pasvenskiene, & S Ziziene. "The Social Competence Concept Development in Higher Education". *European Scientific Journal*. 10(28). (2014)
- Laughin, Stephen Mc., & Moulton, Jeanne. "Evaluating Performance Training Methods: A Manual For Teacher Trainers". *Massachusetts: Center for International Education University of Massachusetts*. 1975.
- Limbong, Mesta., & Lumbantoruan, Jitu Halomoan. "The Effect of Government Teacher Certification on Teaching Performance: Certified vs Uncertified". *Journal of Ultimate Research and Trends in Education*. 2022. 4(3).
- Lye, Lau Teng. "Opportunities and Challenges Faced by Private Higher Education Institution Using the TPACK Model in Malaysia". *Procedia: Social and Behavioral Science*. 2013.
- Mahdum. "Technological Pedagogical Content Knowledge (TPACK) of English Teachers in Pekanbaru, Riau, Indonesia", *Mediterranean Journal of Social Sciences: MCSER Publishing, Rome-Italy*, 6(5). (2015)

- Mahmoud A. Ramadan. "The Effectiveness of Information and Communication Technologies (ICTs) on the Sustainable Efficiency of Education Learning Systematic Processes". *Proceedings of 4th Global Business and Finance Research Conference*. (2015).
- Marcinkiewicz, Hendryk R. "Computer and Teachers: Factors Influencing Computer Use in the Classroom". *Journal of Research on Computing in Education*. 26(2). (1993). (Doi.10.1080/08886504.1993.10782088)
- Mendikbud RI. "Implementasi Kurikulum 2013". (p. 38). 2013. cited in Maulana Mualim & Fakhrezy Rizal Maulana. "EFL Teachers' TPACK and Their Espoused Used of ICT Based on SAMR Models". *ELT Echo: The Journal of English Language Teaching in Foreign Language Context*. 8(1). 2023.
- Merriam Webster. "Knowledge", (2018). (<https://www.merriam.webster.com/dictionary/knowledge>, accessed at 14 May 2023)
- Ministry of Finance of Republic Indonesia. "Undang". <https://jdih.kemenkeu.go.id/fulltext/2005/14tahun2005uu.htm> (Accessed in 27 September, 2023).
- Mishra, Punya., & Koehler, Matthew J. "Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge", *Teachers College Record*, 108(6). (2006).
- Mualim, Maulana, Ma'ruffah, Desi Wijayanti., & Sartika, Endang. "The Strengths and Pitfalls of Google Classroom Application to Gen-Z Students' Learning Hybridity". *Proceeding of International Conference on Islamic Education (ICIED)*, 4(1). (2019).
- Mustofa. "Upaya Pengembangan Profesionalisme Guru di Indonesia". *Jurnal Ekonomi & Pendidikan*. 4(1). 2007.
- Newhouse, C. Paul. "Literature Review: The Impact of ICT on Learning and Teaching" Perth, Western Australia: *Department of Education*. (2002).
- Niess M. L. "Preparing Teachers to Teach Science and Mathematics with Technology: Developing a Technology Pedagogical Content Knowledge", *Teaching and Teacher Education*, 21. (2005): 509-523.
- Niess, Margar et L. "Knowledge Needed for Teaching with Technologies: Call it TPACK", *AMTE Connections*, 17 (2008): 9-10.
- Ningtiyas, F. A., & Jailani. "Does Teachers' Training Affect the Pedagogical Competence of Matematics Teachers?", *Journal of Physics: Conference Series*. (2018). (doi :10.1088/1742-6596/1097/1/012106).
- Nurdin, Nurhasanah. "Analyzing the Implementation of Technological Pedagogical Content Knowledge (TPACK) by EFL Teachers in the Classroom". (2023). *Thesis*.
- Nursyifa, Aulia, et al. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *Jurnal Pendidikan Indonesia*. Vol. 9(1). (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982)
- Nursyifa, Aulia, Rahmadi, Imam Fitri., & Hayati, Eti. "TPACK Capability Preservice Teachers Civic Education in the Era of Industrial Revolution 4.0". *Jurnal Pendidikan Indonesia*. Vol. 9(1). (2020). (DOI: 10.23887/jpi-undiksha.v9i1.17982)

- Obos, Achmad I., Aridah., Rusmawaty, Desy. "Transition to Online Learning: Implementing the TPACK Framework by English Teachers DUE TO covid-19 Pandemic". *JET: Journal of Education and Teaching*. 4(1). (2023)
- Orpinas, Pamela. "Social Competence". *The Corsini Encyclopedia of Psychology*. Vol. 4. (2010)
- Özden, Mustafa. "The Effect of Content Knowledge on Pedagogical Content Knowledge: The Case of Teaching Phases of Matters". *Educational Science Theory & Practice*. 8 (2). 2008.
- Pangket, Willow F. "Technological Pedagogical and Content Knowledge (TPACK) of English Language Teachers and Their Teaching Practices". *Journal of Positive School Psychology*. 6(2). (2022)
- Par, Leonardus. "Integrating TPACK into English Language Teaching Before and During Covid-19 Pandemic: The State of the Art ". *ELEJ*, 1(2), (2022): 49-71.
- Pelgrum, W. J. "Obstacles to the Integration of ICT in Education: Results from a Worldwide Educational Assessment". *Computer & Education*, 37 (2001): 163-178.
- Pipit Mulyah, Dyah Aminatun, & Linda Septiyana. "Teaching in Pandemic: Teachers' Experiences During Coronavirus Outbreak", *Journal of Research on Language Education (JoRLE)*, 3(1), (2022): 1-7.
- Pogosian, Victorian. "The Russian System of Training Teachers of Foreign Languages for Young Learners: History and New Developments". (2008).
- Purnama, Nelza G, Risnawati, & D Lismayanti. "Teachers' Pedagogic Competence in Teaching English at Secondary School Level". *Jadila: Journal of Development and Innovation in Language and Literature Education*. 1(3). (2021)
- Putri, Salma Eka. "The Implementation of TPACK in Teaching Writing Recount Text in a Senior High School Level". *RETAIN*. 7(2). (2019)
- Ramadan, Mahmoud A. "The Effectiveness of Information and Communication Technologies (ICTs) on the Sustainable Efficiency of Education Learning Systematic Processes". *Proceedings of 4th Global Business and Finance Research Conference*. 2015.
- Ramayulis. "Profesi dan Etika Keguruan", Jakarta: Kalam Mulia, 2nd edition. (2013)
- Rosenberg, Joshua M. & Koehler, Matthew J. "Content and Technological Pedagogical Content Knowledge (TPACK): A Systematic Review". *Journal of Research on Technological in Education*, 47(3). (2015): 186-210. (DOI: 10.1080/15391523.2015.1052663).
- Sallamah, Ismi B., & As-Sabiq, Agus Husein. "Does Instagram as Learning Media Affect Students' Writing Skill on Recount Text?: An Experimental Research". *Journal of Research and Innovation in Language*. 2(3). 2020.
- Saputra, Bagus Tri. "Students' Perception of Teachers' Pedagogical and Personal Competences Toward their English Learning Outcomes at SMPN 1 Bandar Seikijang". *Thesis*.

- Schmidt, Denise A., et al. "Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher", *JRTE*, 42(2). 123-149. 2009.
- Schmidt, Denise A., et al. "Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teacher", *JRTE*, 42(2). 123-149. 2009.
- Shin, Tae, et al. "Changing Technological Pedagogical Content Knowledge (TPACK) Through Courses Experiences". (2009).
- Shulman, Lee S. "Knowledge and Teaching: Foundation of the New Reform". *Harvard Educational Review*, 57, 1-22. 1987
- Shulman, Lee S. "Knowledge and Teaching: Foundations of the New Reform". *Harvard Educational Review*, 57(1). (1987).
- Shulman, Lee S. "Those Who Understand: Knowledge Growth in Teaching". *Educational Researcher*. 15(2), 4-14. (1986). (Doi: 10.3102/0013189x015002004)
- Sicilia, Carmen. "The Challenges and Benefits to Teachers' Practices in Constructivist Learning: Environments Supported by Technology". *Thesis*. (2005).
- Sihombing R A, Manurung G A, & Simanjuntak L A. "Analysis of Implementation of TPACK by Teachers Through Distance Learning at Junior High School in Medan". *Indonesian Science Education Research (ISER)*. 3(2). (2021)
- Sikki, Endang A A., Rahman, A., Hamra, A., & Noni, N. "The Competence of Primary School English Teachers in Indonesia". *Journal of Education and Practice*, 4(11). (2013).
- Sriekaningsih, A., Sarmauli, & Karubaba, H Y. "Teacher Personality Competency in Improving the Interest of Learning Education of Christian Religious in Class Study Xi.1 Senior High School 1 Palangka Raya". *Proceedings of the 1st International Conference on Life, Innovation, Change and Knowledge (ICLICK 2018)*. (2019)
- Sudargini, Yuli & Purwanto, Agus. "The Effect of Teachers Pedagogic Competency on the Learning Outcomes of Studetns". *Journal of Industrial Engineering & Management Research (JIEMAR)*. 1(4). (2020).
- Sudijono, Anas. "Pengantar Statistik Pendidikan". *Jakarta: Rajawali Pers*. 2011. p. 43
- Sugiyono. "Metode Penelitian dan Pengembangan (Research and Development)". *Yogyakarta: Alfabeta Bandung*. 2017.
- Syifa, Nurbani. "English Language Teachers Teaching Using Technological Pedagogical Content Knowledge (TPACK) in the Era of Covid-19 Pandemic: A Descriptive Qualitative Study". (2021).
- Timur B., and Taşar, M. F. "Teknolojik pedagojik alan bilgisi öz güven ölçeğinin (TPABÖGÖ) Türkçe'ye uyarlanması", *Gaziantep University Journal of Social Sciences*, 10(2). (2011).
- Voogt, Joke., & Roblin, Natalie Pareja. "A comparative Analysis of International Frameworks for 21st Century Competences: Implications for National

- Curriculum Policies”, *Journal of Curriculum Studies*, 44(3). (2012): 299-321.
- Wagiran. “Teacher Technological Competence: The Urgently to Improving Vocational High School Teachers Competence in Indonesia”. (2011)
- Welsh, James. “Choosing Models and Modeling Choices”. *Teaching and Learning with Technology* (<https://fcit.usf.edu/matrix/choosing-models-and-modeling-choices/#:~:text=One%20limitation%20of%20TPACK%20is,purpose%20of%20the%20TPACK%20model>, accessed in 29 September 2023)
- Wijayanti, Erfin., Nugroho, Anggit P., Mursyid, Andi M. M., & Rahmawansyah, R. “Teaching EFL Students in Post-Pandemic Era: ICT Tools and Obstacle”. *Al-Islah: Jurnal Pendidikan*. 15 (2). 2023.
- www.bpkp.go.id. “Peraturan Pemerintah Republik Indonesia Nomor 19 Tahun 2017 Tentang Perubahan Atas Peraturan Pemerintah Nomor 74 Tahun 2008 Tentang Guru”.
- Yuvaraj, R. “Competency Mapping- A Drive for Indian Industries”. *International Journal of Scientific & Engineering Research*, 2(8), 1-7. (2011).
- Zulaiha, Siti., Mulyono, Herri., & Ambarsari, Lies. “An Investigation into EFL Teachers’ Assessment Literacy: Indonesian Teachers’ Perceptions and Classroom Practice”. *European Journal of Contemporary Education*. 9(1), (2020).



APPENDICES



Appendix 1. Research Permission Letter to Dinas Pendidikan dan Kebudayaan Provinsi Jawa Tengah Wilayah IX



**KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI
PROFESOR KIAI HAJI SAIFUDDIN ZUHRI PURWOKERTO
FAKULTAS TARBIYAH DAN ILMU KEGURUAN**

Jalan Jenderal A. Yani, No. 40A Purwokerto 53126
Telepon (0281) 635624 Faksimili (0281) 636553
www.ftik.uinsaizu.ac.id

Nomor : B.m.3732/Un.19/D.FTIK/PP.05.3/07/2023

07 Juli 2023

Lamp. : -

Hal : **Permohonan Ijin Riset Individu**

Kepada
Yth. Kepala Dinas Pendidikan dan Kebudayaan Provinsi Jawa Tengah Wilayah IX
Kec. Bawang
di Tempat

Assalamu'alaikum Wr. Wb.

Diberitahukan dengan hormat bahwa dalam rangka pengumpulan data guna penyusunan skripsi, memohon dengan hormat saudara berkenan memberikan ijin riset kepada mahasiswa kami dengan identitas sebagai berikut :

- | | |
|--------------------|--|
| 1. Nama | : Eriska Neti Lumintasari |
| 2. NIM | : 1917404099 |
| 3. Semester | : 8 (Delapan) |
| 4. Jurusan / Prodi | : Tadris Bahasa Inggris |
| 5. Alamat | : Dusun 2 01/02, Kandangwangi, Wanadadi, Banjarnegara |
| 6. Judul | : Banjarnegara High School English Teachers' Capability in the Implementation of TPACK (Technological Pedagogical Content Knowledge) in Teaching English |

Adapun riset tersebut akan dilaksanakan dengan ketentuan sebagai berikut :

- | | |
|----------------------|-----------------------------|
| 1. Objek | : Guru Bahasa Inggris |
| 2. Tempat / Lokasi | : Di tempat |
| 3. Tanggal Riset | : 08-07-2023 s/d 08-09-2023 |
| 4. Metode Penelitian | : Kuantitatif Deskriptif |

Demikian atas perhatian dan ijin saudara, kami sampaikan terima kasih.
Wassalamu'alaikum Wr. Wb.

An. Dekan
Ketua Jurusan Tadris



Maria Ulpah

Appendix 2. Research Permission Letter to the Chairman of MGMP Senior High School in Banjarnegara Regency



KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI
PROFESOR KIAI HAJI SAIFUDDIN ZUHRI PURWOKERTO
FAKULTAS TARBİYAH DAN ILMU KEGURUAN
Jalan Jenderal A. Yani, No. 40A Purwokerto 53126
Telepon (0281) 635624 Faksimili (0281) 636553
www.ftik.uinsaizu.ac.id

Nomor : B.m.3733/Un.19/D.FTIK/PP.05.3/07/2023
Lamp. : -
Hal : **Permohonan Ijin Riset Individu**

07 Juli 2023

Kepada
Yth. Ketua MGMP Bahasa Inggris SMA Negeri/Swasta se Kabupaten Banjarnegara
Kec. Purwareja Klampok
di Tempat

Assalamu'alaikum Wr. Wb.

Diberitahukan dengan hormat bahwa dalam rangka pengumpulan data guna penyusunan skripsi, memohon dengan hormat saudara berkenan memberikan ijin riset kepada mahasiswa kami dengan identitas sebagai berikut :

- | | |
|--------------------|--|
| 1. Nama | : Eriska Neti Lumintasari |
| 2. NIM | : 1917404099 |
| 3. Semester | : 8 (Delapan) |
| 4. Jurusan / Prodi | : Tadris Bahasa Inggris |
| 5. Alamat | : Dusun 2 01/02, Kandangwangi, Wanadadi, Banjarnegara |
| 6. Judul | : Banjarnegara High School English Teachers' Capability in the Implementation of TPACK (Technological Pedagogical Content Knowledge) in Teaching English |

Adapun riset tersebut akan dilaksanakan dengan ketentuan sebagai berikut :

- | | |
|----------------------|-----------------------------|
| 1. Objek | : Guru Bahasa Inggris |
| 2. Tempat / Lokasi | : Di tempat |
| 3. Tanggal Riset | : 08-07-2023 s/d 08-09-2023 |
| 4. Metode Penelitian | : Kuantitatif Deskriptif |

Demikian atas perhatian dan ijin saudara, kami sampaikan terima kasih.
Wassalamu'alaikum Wr. Wb.

An. Dekan
Ketua Jurusan Tadris



Maria Ulpah

Tembusan :

1. Dinas Pendidikan dan Kebudayaan Provinsi Jawa Tengah Wilayah IX

Appendix 3. Research Permission Letter to the Chairman of MGMP Vocational High School in Banjarnegara Regency



KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI
PROFESOR KIAI HAJI SAIFUDDIN ZUHRI PURWOKERTO
FAKULTAS TARBIYAH DAN ILMU KEGURUAN
Jalan Jenderal A. Yani, No. 40A Purwokerto 53126
Telepon (0281) 635624 Faksimili (0281) 636553
www.ftik.uinsaizu.ac.id

Nomor : B.m.3734/Un.19/D.FTIK/PP.05.3/07/2023 07 Juli 2023
Lamp. : -
Hal : **Permohonan Ijin Riset Individu**

Kepada
Yth. Ketua MGMP Bahasa Inggris SMK Negeri/Swasta se Kabupaten Banjarnegara
Kec. Banjarnegara
di Tempat

Assalamu'alaikum Wr. Wb.

Diberitahukan dengan hormat bahwa dalam rangka pengumpulan data guna penyusunan skripsi, memohon dengan hormat saudara berkenan memberikan ijin riset kepada mahasiswa kami dengan identitas sebagai berikut :

- | | |
|--------------------|--|
| 1. Nama | : Eriska Neti Lumintasari |
| 2. NIM | : 1917404099 |
| 3. Semester | : 8 (Delapan) |
| 4. Jurusan / Prodi | : Tadris Bahasa Inggris |
| 5. Alamat | : Dusun 2 01/02, Kandangwangi, Wanadadi, Banjarnegara |
| 6. Judul | : Banjarnegara High School English Teachers' Capability in the Implementation of TPACK (Technological Pedagogical Content Knowledge) in Teaching English |

Adapun riset tersebut akan dilaksanakan dengan ketentuan sebagai berikut :

- | | |
|----------------------|-----------------------------|
| 1. Objek | : Guru Bahasa Inggris |
| 2. Tempat / Lokasi | : Di tempat |
| 3. Tanggal Riset | : 08-07-2023 s/d 08-09-2023 |
| 4. Metode Penelitian | : Kuantitatif Deskriptif |

Demikian atas perhatian dan ijin saudara, kami sampaikan terima kasih.
Wassalamu'alaikum Wr. Wb.

An. Dekan
Ketua Jurusan Tadris



Maria Ulpah

Tembusan :

1. Dinas Pendidikan dan Kebudayaan Provinsi Jawa Tengah Wilayah IX

Appendix 4. Questionnaires

Respondents Background

1. Respondents' Profile based on Educational Background

Educational Background	Answer	
	Yes	No
Diploma		
Undergraduate		
Master		

2. Respondents' Profile based on Teaching Experience and Certification

Teaching Experience	Certification	
	Done	Not Yet
≤10 years		
11-20 years		
21-30 years		
≥30 years		

3. Respondents' Profile based on Age and IT Course

Age Range	IT Course	
	Ever	Never
≤35 Years old		
36-45 Years old		
46-55 Years old		
>55 Years old		

Respondents Competences

1. TK (Technological Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I know how to solve my own technical problems.					
2.	I can learn various technology easily.					
3.	I keep up with important news technologies.					
4.	I frequently play around the technology.					
5.	I know about a lot of different technologies.					
6.	I have the technical skills I need to use technology.					
7.	I know about basic component of computer.					
8.	I know how to use word processing program.					

9.	I know how to use spreadsheet.					
10.	I know how to use presentation program.					
11.	I know how to use printer, scanner, projector, and digital camera.					
12.	I can store data in digital form. (Example: CD, DVD, Flash Disk)					
13.	I can save and change the data in various formats (Example: Convert Ms. Word file to PDF)					
14.	I use internet as communication media.					
15.	I use internet as my teaching source.					
Total						

2. CK (Content Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I have sufficient knowledge about literacy					
2.	I can use a literary way of thinking.					
3.	I have various ways and strategies of developing my understanding of literacy.					
4.	I keep developing my knowledge repertoire in literacy.					
Total						

3. PK (Pedagogical Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I know how to assess student performance in a classroom.					
2.	I can adapt my teaching based-upon what students currently understand or do not understand.					
3.	I can adapt my teaching style to different learners.					
4.	I can use wide range of teaching approaches in classroom setting.					
5.	I am familiar with common student understandings and misconceptions.					
6.	I know how to organize and maintain classroom management.					
Total						

4. PCK (Pedagogical Content Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I can select effective teaching approaches to guide student thinking and learning in literacy.					
2.	I make my own lesson plan.					
3.	I can make difficult lesson easier for students to understand.					
4.	I make questions by my own to measure my students' understanding towards the lesson.					
Total						

5. TCK (Technological Content Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I know about technology that I can use for understanding and doing literacy.					
2.	I know computer applications related to literacy.					
3.	I use the technologies to develop learning activity and students' tasks.					
4.	I use technologies as my source to develop my own knowledge.					
Total						

6. TPK (Technological Pedagogical Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I can choose technologies that enhance the teaching approaches for a lesson.					
2.	I can choose technologies that enhance students' learning for a lesson.					
3.	My teacher education program has caused me to think more deeply about how technology could influence the teaching approaches I use in my classroom.					
4.	I am thinking critically about how to use technology in my classroom.					
5.	I can adapt the use of the technologies that I am learning about to different teaching activities.					

6.	I can select technologies to use in my classroom that enhance what I teach, how I teach, and what students learn.					
7.	I can use strategies that combine content, technologies and teaching approaches that I learn about in my coursework in my classroom.					
8.	I can provide leadership in helping others to coordinate the use of content, technologies and teaching approaches at my school and/or district.					
9.	I can choose technologies that enhance the content for a lesson.					
Total						

7. TPACK (Technological Pedagogical Content Knowledge) Score

No.	Statement	Answer				
		SD	D	N	A	SA
1.	I can teach lessons that appropriately combine literacy, technologies, and teaching approaches.					
2.	I help my colleagues to understand how to integrate literacy, technologies, and teaching approaches.					
3.	I use various approaches with various softwares to enhance students' understanding in learning literacy.					
Total						

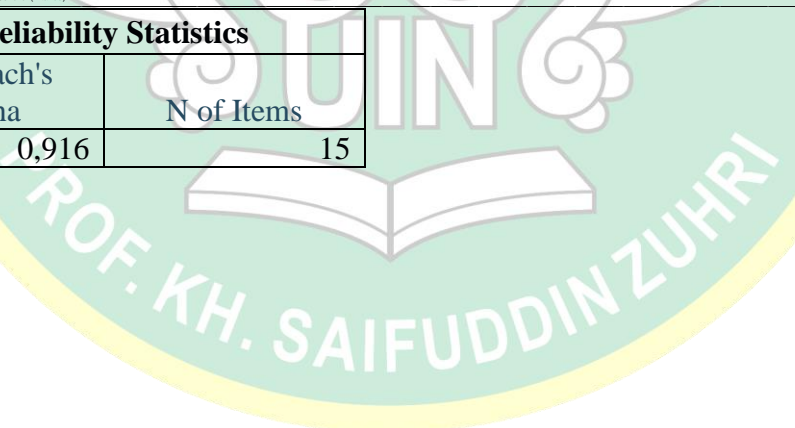
Appendix 6. Data Result Using Pearson Product Moment Correlation and Cronbach's Alpha Test Technological Knowledge

		Correlations															Total
		X01	X02	X03	X04	X05	X06	X07	X08	X09	X10	X11	X12	X13	X14	X15	Total
X01	Pearson Correlation	1	.557*	.539*	.495*	.469*	.516*	.420*	.271*	.642*	.459*	.431*	.447*	.494*	.257*	.286*	.716*
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.028	0.013	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X02	Pearson Correlation	.557*	1	.660*	.530*	.548*	.524*	.548*	.296*	.604*	.277*	.392*	.365*	.409*	.244*	.374*	.726*
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.010	0.000	0.016	0.001	0.001	0.001	0.000	0.035	0.001	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X03	Pearson Correlation	.539*	.660*	1	.665*	.595*	.443*	.308*	.245*	.516*	.386*	.397*	.366*	.382*	.225*	.376*	.697*
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.007	0.034	0.000	0.001	0.000	0.001	0.001	0.011	0.052	0.001	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X04	Pearson Correlation	.495*	.530*	.665*	1	.524*	.496*	.256*	0.115	.559*	.357*	.386*	.284*	.344*	.355*	.402*	.667*
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.027	0.327	0.000	0.002	0.001	0.014	0.003	0.002	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X05	Pearson Correlation	.469*	.548*	.595*	.524*	1	.484*	.407*	.428*	.509*	.291*	.329*	.290*	.292*	.298*	.340*	.684*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.011	0.004	0.012	0.011	0.010	0.003	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X06	Pearson Correlation	.516*	.524*	.443*	.496*	.484*	1	.464*	.366*	.665*	.320*	.443*	.267*	.374*	0.137*	0.133*	.674*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000	0.001	0.000	0.005	0.000	0.021	0.001	0.242	0.255	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X07	Pearson Correlation	.420*	.548*	.308*	.256*	.407*	.464*	1	.568*	.476*	.449*	.582*	.391*	.318*	.264*	.319*	.661*
	Sig. (2-tailed)	0.000	0.000	0.007	0.027	0.000	0.000		0.000	0.000	0.000	0.000	0.001	0.005	0.022	0.005	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X08	Pearson Correlation	.271*	.296*	.245*	0.115	.428*	.366*	.568*	1	.350*	.473*	.492*	.359*	.294*	.283*	0.163*	.559*
	Sig. (2-tailed)	0.019	0.010	0.034	0.327	0.000	0.001	0.000		0.002	0.000	0.000	0.002	0.011	0.014	0.163	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X09	Pearson Correlation	.642*	.604*	.516*	.559*	.509*	.665*	.476*	.350*	1	.549*	.547*	.492*	.544*	0.215*	.265*	.788*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.002		0.000	0.000	0.000	0.000	0.000	0.064	0.020	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X10	Pearson Correlation	.459*	.277*	.386*	.357*	.291*	.320*	.449*	.473*	.549*	1	.514*	.681*	.392*	.521*	.475*	.701*
	Sig. (2-tailed)	0.000	0.016	0.001	0.002	0.011	0.005	0.000	0.000	0.000		0.000	0.000	0.001	0.000	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X11	Pearson Correlation	.431*	.392*	.397*	.366*	.329*	.443*	.582*	.492*	.547*	.514*	1	.350*	.475*	.516*	.569*	.772*
	Sig. (2-tailed)	0.000	0.001	0.000	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X12	Pearson Correlation	.447*	.365*	.366*	.284*	.290*	.267*	.391*	.359*	.492*	.561*	.750*	1	.680*	.579*	.566*	.711*
	Sig. (2-tailed)	0.000	0.001	0.001	0.014	0.012	0.021	0.001	0.002	0.000	0.000	0.000		0.000	0.000	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X13	Pearson Correlation	.494*	.409*	.382*	.344*	.292*	.374*	.318*	.294*	.544*	.392*	.475*	.680*	1	.621*	.464*	.690*
	Sig. (2-tailed)	0.000	0.000	0.001	0.003	0.011	0.001	0.005	0.011	0.000	0.003	0.008	0.000		0.000	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X14	Pearson Correlation	.297*	.244*	0.225*	.355*	.286*	0.137*	.264*	.263*	0.215*	.521*	.516*	.579*	.621*	1	.690*	.595*
	Sig. (2-tailed)	0.026	0.035	0.052	0.002	0.010	0.242	0.022	0.014	0.064	0.000	0.000	0.000	0.000		0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
X15	Pearson Correlation	.298*	.374*	.376*	.402*	.340*	0.133*	.319*	0.163*	.268*	.475*	.569*	.566*	.464*	.690*	1	.604*
	Sig. (2-tailed)	0.013	0.001	0.001	0.000	0.003	0.255	0.005	0.163	0.020	0.000	0.000	0.000	0.000	0.000		0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Total	Pearson Correlation	.716*	.726*	.697*	.667*	.684*	.674*	.661*	.559*	.788*	.701*	.772*	.711*	.690*	.585*	.604*	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75

*. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Reliability Statistics	
Cronbach's Alpha	N of Items
0,916	15



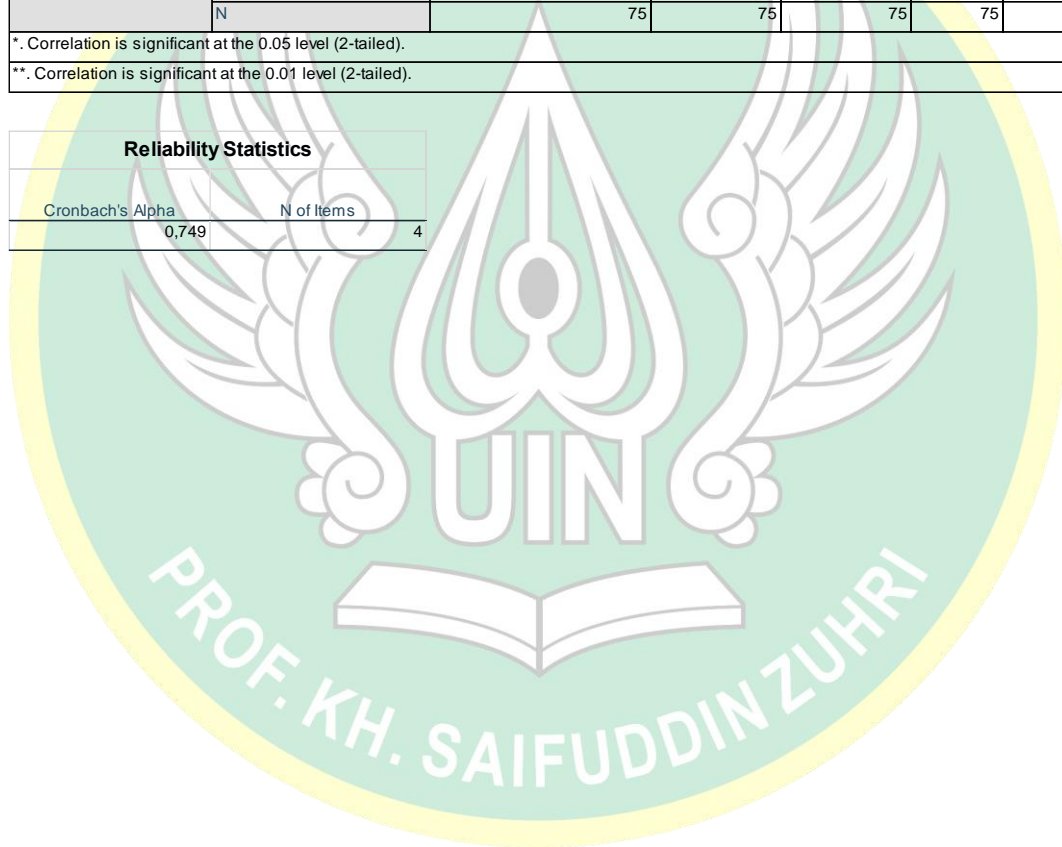
Content Knowledge

Correlations						
		X1	X2	X3	X4	Total
X1	Pearson Correlation	1	.286*	.328**	.416**	.650**
	Sig. (2-tailed)		0,013	0,004	0,000	0,000
	N	75	75	75	75	75
X2	Pearson Correlation	.286*	1	.490**	.550**	.755**
	Sig. (2-tailed)	0,013		0,000	0,000	0,000
	N	75	75	75	75	75
X3	Pearson Correlation	.328**	.490**	1	.526**	.808**
	Sig. (2-tailed)	0,004	0,000		0,000	0,000
	N	75	75	75	75	75
X4	Pearson Correlation	.416**	.550**	.526**	1	.813**
	Sig. (2-tailed)	0,000	0,000	0,000		0,000
	N	75	75	75	75	75
Total	Pearson Correlation	.650**	.755**	.808**	.813**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	
	N	75	75	75	75	75

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics	
Cronbach's Alpha	N of Items
0,749	4



Pedagogical Knowledge

		Correlations						
		X1	X2	X3	X4	X5	X6	TotalX3
X1	Pearson Correlation	1	.731**	.458**	.436**	.513**	.628**	.759**
	Sig. (2-tailed)		0,000	0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75
X2	Pearson Correlation	.731**	1	.683**	.529**	.622**	.663**	.857**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75
X3	Pearson Correlation	.458**	.683**	1	.632**	.668**	.626**	.838**
	Sig. (2-tailed)	0,000	0,000		0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75
X4	Pearson Correlation	.436**	.529**	.632**	1	.563**	.430**	.744**
	Sig. (2-tailed)	0,000	0,000	0,000		0,000	0,000	0,000
	N	75	75	75	75	75	75	75
X5	Pearson Correlation	.513**	.622**	.668**	.563**	1	.652**	.839**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000		0,000	0,000
	N	75	75	75	75	75	75	75
X6	Pearson Correlation	.628**	.663**	.626**	.430**	.652**	1	.826**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000		0,000
	N	75	75	75	75	75	75	75
TotalX3	Pearson Correlation	.759**	.857**	.838**	.744**	.839**	.826**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	
	N	75	75	75	75	75	75	75

Reliability Statistics	
Cronbach's Alpha	N of Items
0,893	6

Pedagogical Content Knowledge

		Correlations				
		X1	X2	X3	X4	Total
X1	Pearson Correlation	1	.412**	.516**	.641**	.798**
	Sig. (2-tailed)		0,000	0,000	0,000	0,000
	N	75	75	75	75	75
X2	Pearson Correlation	.412**	1	.413**	.548**	.737**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000
	N	75	75	75	75	75
X3	Pearson Correlation	.516**	.413**	1	.583**	.803**
	Sig. (2-tailed)	0,000	0,000		0,000	0,000
	N	75	75	75	75	75
X4	Pearson Correlation	.641**	.548**	.583**	1	.859**
	Sig. (2-tailed)	0,000	0,000	0,000		0,000
	N	75	75	75	75	75
Total	Pearson Correlation	.798**	.737**	.803**	.859**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	
	N	75	75	75	75	75

** . Correlation is significant at the 0.01 level (2-tailed).

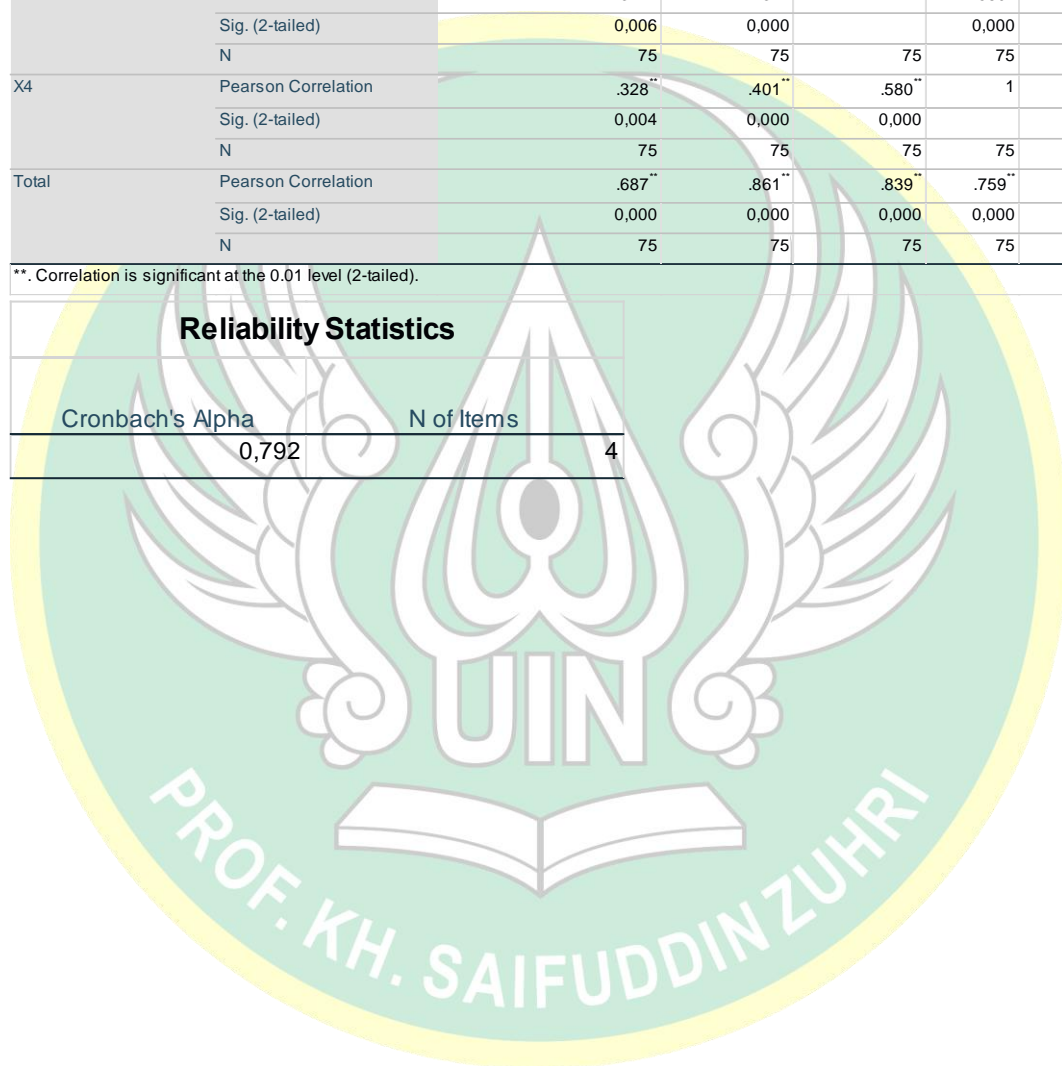
Reliability Statistics	
Cronbach's Alpha	N of Items
0,808	4

Technological Content Knowledge

		Correlations				
		X1	X2	X3	X4	Total
X1	Pearson Correlation	1	.600**	.317**	.328**	.687**
	Sig. (2-tailed)		0,000	0,006	0,004	0,000
	N	75	75	75	75	75
X2	Pearson Correlation	.600**	1	.732**	.401**	.861**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000
	N	75	75	75	75	75
X3	Pearson Correlation	.317**	.732**	1	.580**	.839**
	Sig. (2-tailed)	0,006	0,000		0,000	0,000
	N	75	75	75	75	75
X4	Pearson Correlation	.328**	.401**	.580**	1	.759**
	Sig. (2-tailed)	0,004	0,000	0,000		0,000
	N	75	75	75	75	75
Total	Pearson Correlation	.687**	.861**	.839**	.759**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	
	N	75	75	75	75	75

** . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics	
Cronbach's Alpha	N of Items
0,792	4



Technological Knowledge

		Correlations									
		X01	X02	X03	X04	X05	X06	X07	X08	X09	Total
X01	Pearson Correlation	1	.822**	.339**	.590**	.607**	.565**	.656**	.511**	.473**	.782**
	Sig. (2-tailed)		0,000	0,003	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X02	Pearson Correlation	.822**	1	.394**	.631**	.689**	.640**	.703**	.495**	.621**	.837**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X03	Pearson Correlation	.339**	.394**	1	.640**	.357**	.450**	.468**	.420**	.472**	.664**
	Sig. (2-tailed)	0,003	0,000		0,000	0,002	0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X04	Pearson Correlation	.590**	.631**	.640**	1	.594**	.501**	.564**	.603**	.586**	.816**
	Sig. (2-tailed)	0,000	0,000	0,000		0,000	0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X05	Pearson Correlation	.607**	.689**	.357**	.594**	1	.623**	.672**	.628**	.665**	.810**
	Sig. (2-tailed)	0,000	0,000	0,002	0,000		0,000	0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X06	Pearson Correlation	.565**	.640**	.450**	.501**	.623**	1	.566**	.422**	.628**	.756**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000		0,000	0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X07	Pearson Correlation	.656**	.703**	.468**	.564**	.672**	.566**	1	.729**	.686**	.851**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000		0,000	0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X08	Pearson Correlation	.511**	.495**	.420**	.603**	.628**	.422**	.729**	1	.609**	.769**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000		0,000	0,000
	N	75	75	75	75	75	75	75	75	75	75
X09	Pearson Correlation	.473**	.621**	.472**	.586**	.665**	.628**	.686**	.609**	1	.797**
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000		0,000
	N	75	75	75	75	75	75	75	75	75	75
Total	Pearson Correlation	.782**	.837**	.664**	.816**	.810**	.756**	.851**	.769**	.797**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
	N	75	75	75	75	75	75	75	75	75	75

** . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
0,919	9

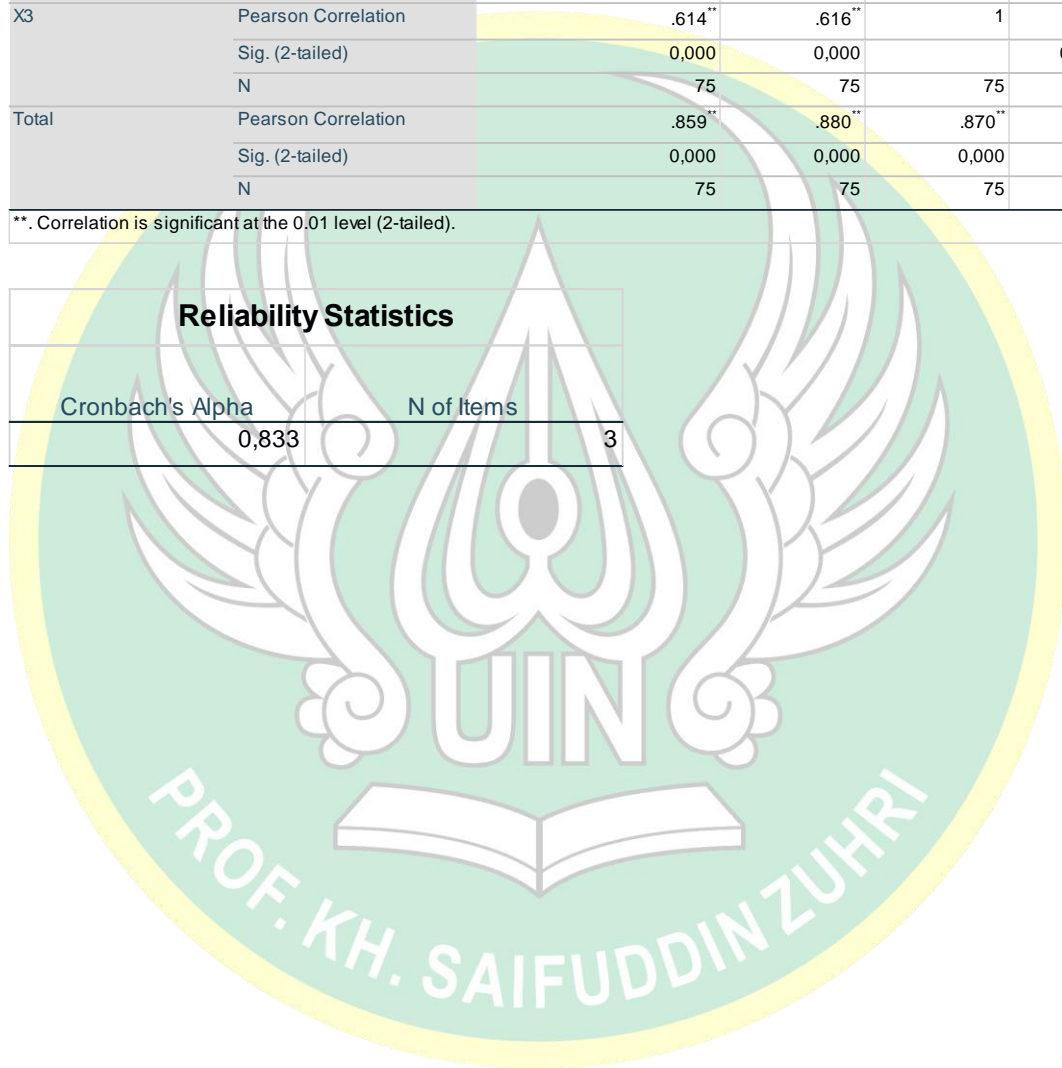
UIN
PROF. KH. SAIFUDDIN ZUHRI

Technological Pedagogical Content Knowledge

		Correlations			
		X1	X2	X3	Total
X1	Pearson Correlation	1	.679**	.614**	.859**
	Sig. (2-tailed)		0,000	0,000	0,000
	N	75	75	75	75
X2	Pearson Correlation	.679**	1	.616**	.880**
	Sig. (2-tailed)	0,000		0,000	0,000
	N	75	75	75	75
X3	Pearson Correlation	.614**	.616**	1	.870**
	Sig. (2-tailed)	0,000	0,000		0,000
	N	75	75	75	75
Total	Pearson Correlation	.859**	.880**	.870**	1
	Sig. (2-tailed)	0,000	0,000	0,000	
	N	75	75	75	75

** . Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics		
Cronbach's Alpha	N of Items	
0,833	3	



Appendix 7. Curriculum Vitae

CURRICULUM VITAE

A. Personal Detail

1. Name : Eriska Neti Lumintasari
2. Student's Number : 1917404099
3. Place, Date of Birth : Wonosobo, 13 June 2000
4. Address : Kandangwangi 01/02, Kecamatan
Wanadadi, Kabupaten Banjarnegara
5. Name of Father : Wahudi
6. Name of Mother : Nurwati

B. Riwayat Pendidikan

TK Aisyah Kandangwangi
SD N 3 Kandangwangi
SMP N 1 Wanadadi
MAN 2 Banjarnegara

Purwokerto, 4 October 2023


Eriska Neti Lumintasari

Appendix 8. The Official Letter of Thesis Proposal Guidance



KEMENTERIAN AGAMA REPUBLIK INDONESIA
 UNIVERSITAS ISLAM NEGERI
 PROFESOR KIAI HAJI SAIFUDDIN ZUHRI PURWOKERTO
 FAKULTAS TARBIYAH DAN ILMU KEGURUAN
 Jalan Jenderal A. Yani, No. 40A Purwokerto 53126
 Telepon (0281) 636624 Faksimili (0281) 636553
 www.uinsaizu.ac.id

BLANGKO BIMBINGAN PROPOSAL

Nama : Eriksa Nefi Lumintakari
 NIM : 1917409099
 Jurusan/Prodi : FTIK / TBI
 Pembimbing : Muellihah, S.S., M.Pd
 Judul : Banjarnegara High School English Teachers' Capability in the Implementation of TEACH in Teaching English

No	Hari / Tanggal	Materi Bimbingan	Tanda Tangan	
			Pembimbing	Mahasiswa
1	13 Maret 2023	Bimbingan Proposal Mini		
2	14 April 2023	Bimbingan Background		
3	12 Mei 2023	Bimbingan Full Proposal		
4.	15 Mei 2023	Bimbingan Full Proposal & ACC Serprop		

Dibuat di : Purwokerto
 Pada tanggal : 15 Mei 2023
 Dosen Pembimbing

Muellihah, S.S., M.Pd
 NIP. 19720923 200003 2 001

Appendix 9. The Official of Thesis Guidance



**KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI
PROFESOR KIAI HAJI SAIFUDDIN ZUHRI PURWOKERTO
FAKULTAS TARBIYAH DAN ILMU KEGURUAN**

Jalan Jenderal A. Yani, No. 40A Purwokerto 53126
Telepon (0281) 635624 Faksimili (0281) 636553
www.uinsaizu.ac.id

BLANGKO BIMBINGAN SKRIPSI

Nama : Erika Neti Lumintarsi
NIM : 1917404099
Jurusan/Prodi : Tadris/Tadris Bahasa Inggris
Pembimbing : Muflihah S. Pd. M.A
Judul :

No	Hari / Tanggal	Materi Bimbingan	Tanda Tangan	
			Pembimbing	Mahasiswa
1	Selasa, 6 Juni 2023	Konsultasi Revisi Proposal		
2	Rabu, 21 Juni 2023	Konsultasi instrumen		
3	Selasa 11 Juli 2023	Valisadi Instrumen		
4	Selasa 8 Agustus 2023	Konsultasi Chapter I		
5	Kamis 21 September 2023	Konsultasi Chapter II dan III		
6	Jum'at 29 September 2023	Konsultasi Revisi Chapter II & III		
7	Rabu, 4 Oktober 2023	Konsultasi Chapter IV & V		
8	Kamis 5 Oktober 2023	Konsultasi Revisi BAB IV & V		

Dibuat di : Purwokerto
Pada tanggal : 5 Oktober 2021
Dosen Pembimbing

MUFLIHAH, M. Pd
NIP. 19720923200003001

Appendix 10. Official Survey Validation by Expert

LEMBAR JUDGEMENT EXPERT

SURAT KETERANGAN VALIDASI INSTRUMEN PENELITIAN

Yang bertanda tangan di bawah ini:

Nama : Muflihah, M. Pd

NIP : 19720923200003001

Setelah membaca, menelaah, dan mencermati kesesuaian isi pernyataan terhadap instrument berupa lembar angket Uji Kemampuan Guru Bahasa Inggris pada TPACK (Technological Pedagogical Content Knowledge) yang akan digunakan untuk penelitian berjudul "**Banjarnegara English Teacher Capability on TPACK (Technological Pedagogical Content Knowledge) in Teaching English**" yang dibuat oleh:

Nama : Eriska Neti Lumintasari

NIM : 1917404099

Prodi : Tadris Bahasa Inggris

Fakultas : Fakultas Tarbiyah dan Ilmu Keguruan

Dengan ini menyatakan lembar penilaian instrument tersebut (√)

Layak digunakan untuk mengambil data tanpa revisi

Layak digunakan untuk mengambil data dengan revisi sesuai saran

Tidak layak

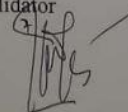
Catatan (bila perlu)

Semua item sudah sesuai dan bisa memberi gambaran
tj. kapabilitas guru terkait dengan T.P.A.C.K.
Tambahkan identitas sekolah, jenis kelamin

Demikian keterangan ini dibuat dan untuk digunakan sebagaimana mestinya.

Purwokerto, 21 Juni 2023

Validator



Muflihah, M. Pd

NIP. 19720923200003001

Appendix 11. Certificate of BTA and PPI



SERTIFIKAT

Nomor: In.17/UPT.MAJ/16159/05/2022

Diberikan oleh UPT Ma'had Al-Jami'ah IAIN Purwokerto kepada:

NAMA : ERISKA NETI LUMINTASARI
NIM : 1917404099

Sebagai tanda yang bersangkutan telah LULUS dalam Ujian Kompetensi Dasar Baca Tulis Al-Qur'an (BTA) dan Pengetahuan Pengamalan Ibadah (PPI) dengan nilai sebagai berikut:

Tes Tulis : 87
Tartil : 70
Imla' : 70
Praktek : 70
Nilai Tahfidz : 70



Purwokerto, 17 Mei 2022



ValidationCode

Appendix 12. Certificate of Macro Teaching



Appendix 13. Certificate of Community Service Program



Sertifikat

Nomor Sertifikat : 1571/K.LPPM/KKN.50/09/2022

Lembaga Penelitian dan Pengabdian kepada Masyarakat (LPPM)
Universitas Islam Negeri Prof. K.H. Saifuddin Zuhri Purwokerto menyatakan bahwa:

Nama Mahasiswa :	ERISKA NETI LUMINTASARI
NIM :	1917404099
Fakultas :	Tarbiyah & Ilmu Keguruan
Program Studi :	Tadris Bahasa Inggris (TBI)

Telah mengikuti Kuliah Kerja Nyata (KKN) Angkatan ke-50 Tahun 2022,
dan dinyatakan **LULUS** dengan nilai **A (93)**.



Certificate Validation

Appendix 14. Certificate of Computer

SERTIFIKAT

APLIKASI KOMPUTER

KEMENTERIAN AGAMA
INSTITUT AGAMA ISLAM NEGERI PURWOKERTO
UPT TEKNOLOGI INFORMASI DAN PANGKALAN DATA
Alamat: Jl. Jend. Ahmad Yani No. 40A Telp. 0281-635624 Website: www.iainpurwokerto.ac.id Purwokerto 53126



IAIN PURWOKERTO

No. IN.17/UPT-TIPD/8035/X/2021

SKALA PENILAIAN

SKOR	HURUF	ANGKA
86-100	A	4.0
81-85	A-	3.6
76-80	B+	3.3
71-75	B	3.0
65-70	B-	2.6

Diberikan Kepada:

ERISKA NETI LUMINTASARI
NIM: 1917404099

Tempat / Tgl. Lahir: Wonosobo, 13 Juni 2000

Sebagai tanda yang bersangkutan telah menempuh dan **LULUS** Ujian Akhir Komputer pada Institut Agama Islam Negeri Purwokerto Program *Microsoft Office®* yang telah diselenggarakan oleh UPT TIPD IAIN Purwokerto.

MATERI PENILAIAN

MATERI	NILAI
Microsoft Word	80 / B+
Microsoft Excel	77 / B+
Microsoft Power Point	81 / A-






Purwokerto, 05 Oktober 2021
Kepala UPT TIPD



Dr. H. Fajar Hardoyono, S.Si, M.Sc
NIP. 19801215 200501 1 003



Appendix 15. Certificate of Arabic Language Development


IAIN PURWOKERTO


وزارة الشؤون الدينية
الجامعة الإسلامية الحكومية بورووكرتو
الوحدة لتنمية اللغة

عنوان: شارع جنرال أحمد باتي رقم: ٤٠، بورووكرتو ٥٣١٦٦ هاتف: ٠٢٨١ - ٦٦٥٦٤٤
www.iainpurwokerto.ac.id

الشهادة

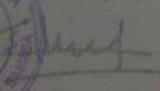
الرقم: ان.١٧ / UPT.Bhs / PP.٠٠٩ / ١٩٣٥٧ / ٢٠٢٠


منحت الى	الاسم
	: ايريسكا نيثي لوميتتا ساري
	المولودة
	: بوونوسويو، ١٣ يونيو ٢٠٠٠
	الذي حصل على
٤٨ :	فهم المسموع
٤٣ :	فهم العبارات والتراكيب
٤٤ :	فهم المقروء
٤٥٠ :	النتيجة



في اختبارات القدرة على اللغة العربية التي قامت بها الوحدة لتنمية اللغة في التاريخ ١٤
مايو ٢٠٢٠

بورووكرتو، ٧ مايو ٢٠٢٠
رئيس الوحدة لتنمية اللغة


الحاج أحمد سعيد، الماجستير
رقم التوظيف: ١٩٧٠٠٦١٧٢٠٠١١٢١٠٠١


ValidationCode

SIUB v.1.0 UPT BAHASA IAIN PURWOKERTO - page1/1

Appendix 16. Certificate of English Language Development



MINISTRY OF RELIGIOUS AFFAIRS
INSTITUTE COLLEGE ON ISLAMIC STUDIES PURWOKERTO
LANGUAGE DEVELOPMENT UNIT

Jl. Jend. A. Yani No. 40A Purwokerto, Central Java Indonesia, www.ainpurwokerto.ac.id

EPTIP CERTIFICATE

(English Proficiency Test of IAIN Purwokerto)

Number: In.17/UPT.Bhs/PP.009/19357/2021

This is to certify that

Name : ERISKA NETI LUMINTASARI
Date of Birth : WONOSOBO, June 13th, 2000

Has taken English Proficiency Test of IAIN Purwokerto with paper-based test, organized by Language Development Unit IAIN Purwokerto on July 30th, 2019, with obtained result as follows:

1. Listening Comprehension : 49
2. Structure and Written Expression : 44
3. Reading Comprehension : 48

Obtained Score : 470



The English Proficiency Test was held in IAIN Purwokerto.



ValidationCode



Purwokerto, October 6th, 2021
Head of Language Development Unit,

Dr. Ade Ruswatie, M. Pd.
NIP: 198607042015032004