TPACK ANALYSIS OF 7TH GRADE ENGLISH TEACHER IN MERDEKA CURRICULUM AT SUKARAJA COMMISSARIAT

Intan Dwi Persada[1], Dewi Mutiara[2], Ikram Jamil[3]

[1,2,3]STKIP BINA MUTIARA, SUKABUMI, INDONESIA

Corresponding Author(S): intandwipersada@gmail.com

Abstract:

The importance of technology skills for teachers in the educational process, particularly in teaching English, prompted this research. The Merdeka Curriculum enables teachers to incorporate technology into their lessons. The purpose of this study is to find out TPACK competence, TPACK level, and the factors that hinder 7th Grade English teachers in the Merdeka Curriculum at Sukaraja Commissariat, Sukabumi Regency. This research is a qualitative descriptive approach with data drawn from surveys, interviews, and classroom observations. The results indicated that teachers were at different levels of technological sophistication, with the majority being in the "Medium" group for technology use. It was reinforced by the score of each individual teacher. Respondent 1 achieved a total score of 70, which reflects 67% of the target. Respondent 2 obtained a score of 85, with an achievement level of 81%. Respondent 3 obtained a score of 76, corresponding to an achievement of 72%, while respondent 4 obtained a score of 71, with an achievement level of 68%. Educators possessing good TPACK exhibit the capability to choose and utilize suitable technologies to enhance teaching English. There are several factors that hinder teachers. First, internal factors include motivation, ability, and teacher self-support. Second, external factors include school policies, infrastructure support, and technology training.

Keywords:
TPACK;
Competence; Teacher

INTRODUCTION

Competence is an absorption from English which means proficiency or ability. Competence is a very important trait for a teacher, because competence is a reflection of their deepest personality and affects their work behaviour and ultimately their performance (Sirait, 2021). Competence is a very crucial thing in the world of education. It is not just the capacity to teach or deliver subject matter, but more than that, competence reflects the entirety of a teacher's personality. Competence includes in-depth knowledge of the material being taught, pedagogical skills, and effective classroom management. It also includes psychological aspects such as empathy and patience, which enable teachers to understand and support individual learners. Competence is often defined as skills, knowledge, and basic values that are reflected in habits of action and thinking (Somantri, 2021).

The ability of teachers to develop a teacher competency plan, called TPACK (Technological Pedagogical Content Knowledge). TPACK component include; Technological Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK) and Technological Content Knowledge (TCK). The TPACK framework represents the type of knowledge that teachers need to teach effectively with technology. It identifies what teachers need to know and be able to do (Koehler et. al; 2013). Education experts add that to achieve effective TPACK integration, teachers need to constantly develop and adapt their knowledge in all three areas, often through professional collaboration and ongoing professional development. Hew & Brush (2020) argue that teachers with strong TPACK are able to design engaging and challenging lessons that utilize the power of technology to support specific learning objectives. In Rahmadi's (2019) research, Mishra and Koehler suggested that TPACK measurement can be used to evaluate teachers' capacity to incorporate technology into the learning process. Measurement can be done both quantitatively and qualitatively. Koehler, Shin, and Mishra (2012) have identified five common methods for measuring teachers' TPACK: self-report measures, open-ended questionnaires, performance appraisals, interviews, and observations. Rahmadi (2019) suggested that the selection of measurement techniques should be based on the type of research and data collection methods. Lyublinskaya and Schilis (2022) have proposed indicators to describe teachers' TPACK understanding, which are categorized into five levels, namely recognizing, accepting, adapting, exploring, and advancing. The purpose of this study is to find out TPACK competence, mastery level of technology, and the factors that hinder English teachers in the Merdeka Curriculum at Sukaraja Commissariat.

METHOD
Research Design
The research methodology employed is descriptive qualitative, whereby the data obtained is transformed into a description. Descriptive qualitative research as research that aims to provide a rich and informative description of a phenomenon, Merriam (2018). Sugiyono (2022) defines descriptive qualitative research as research that aims to describe and explain a phenomenon in depth and detail. Descriptive qualitative research is typically conducted through qualitative data collection methods, including observation, interviews, and document analysis.

Population and sample
The population in this study consisted of certified English teachers at SMPN 1 and SMPN 2 Sukaraja who teach grade 7. In this study, the sampling technique employed was probability sampling utilizing the total sampling method. The total sampling technique was selected due to the relatively small population size of four individuals. Accordingly, the number of samples is identical to that of the population (Sugiono, 2022). Accordingly, the sample size was four English teachers employed at SMPN 1 and SMPN 2 Sukaraja.

Procedure data collection
In this research process, the instruments used were questionnaires, interviews, and observation sheets. The instrument has been constructed with the objective of measuring the attitudes, opinions and perceptions of the respondents in relation to the social phenomenon under study. The scale employed in this questionnaire is the Likert scale, a

widely used measurement method in quantitative research. As Creswell (2019) notes, the Likert scale enables respondents to indicate their level of agreement or disagreement with specific statements by selecting from the available answer options. The response options are presented in a graduated sequence, ranging from "Selalu," "Sering," "Kadang-kadang," to "Tidak Pernah." This allows for a more detailed and nuanced data measurement. The use of the Likert scale in this study is in accordance with Creswell's (2019) recommendation that this scale is an effective method for measuring attitude, opinion, and perception variables in a valid and reliable manner. The interview instrument in this research, there were 14 questions used in accordance with the TPACK indicators which include: Technological Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK) and Technological Content Knowledge (TCK). The observation instrument used is structured observation where researchers use guidelines or tools that have been planned or prepared in advance to record data. The observation instrument refers to the seven TPACK indicators used to observe the teacher in providing learning in the classroom in accordance with the learning module he made.

Technique of data analysis

Data analysis encompasses three interrelated stages that occur concurrently:

1. Data Reduction is the process of selecting, simplifying, abstracting, and modifying data that is recorded on observation forms or written notes. In this example, the researcher reduced data from interview transcripts and observation sheets by selecting and discarding material that was aligned with the research questions and discarding material that was not aligned with the research problem.

2. Data Display is used to describe the presentation of organized information, which allows conclusions to be drawn and actions taken. At this stage, it presents information regarding the implementation and challenges faced by educators when adopting the Merdeka Curriculum for English language teaching. In presenting these facts, the researcher used a systematic data collection methodology to draw conclusions based on the research findings.

3. Drawing Conclusion is the process of presenting data findings in a clear and concise manner. It should focus on the implementation and problems faced by teachers in applying the Merdeka Curriculum to English language teaching at SMP 1 and SMP 2 Sukaraja. Verification involves checking the validity of provisional conclusions. This suggests that the data are continuously evaluated and their validity confirmed.

RESULTS AND DISCUSSION

Results

Table 1 The Result of Questionnaire

NO	NAME	SCORE	Percent
1	Respondent 1	70	67%
2	Respondent 2	85	81%
3	Respondent 3	76	72%
4	Respondent 4	71	68%

Based on the explanation in the table above, it is explained that this framework is also designed to assess teachers' ability to integrate technology into the learning process by measuring TPACK (Technological Pedagogical Content Knowledge). Data was collected by distributing a 21-question questionnaire to teachers and the data was then analyzed to

determine their level of technological mastery. Respondent 1 achieved a total score of 70, which reflects 67% of the target. Respondent 2 obtained a score of 85, with an achievement level of 81%. Respondent 3 obtained a score of 76, corresponding to an achievement of 72%, while respondent 4 obtained a score of 71, with an achievement level of 68%.

The results of the analysis show the levels of teachers' mastery of TPACK as shown in the table below:

Table 2 Proficiency and Mastery Level of Technology

NO	NAME	SCORE	Percent	Proficiency of Technology	Mastery Level of Technology
1	Respondent 1	70	67%	Medium	Adapting
2	Respondent 2	85	81%	High	Exploring
3	Respondent 3	76	72%	Medium	Adapting
4	Respondent 4	71	68%	Medium	Adapting

The data above shows that teachers are at different levels of technological sophistication, with the majority being in the "Medium" group for technology use.

Based on the results of interviews and field observations, there are several factors that significantly affect the ability and level of mastery of technology of grade 7 English teachers in Sukaraja Commissariat. These factors can be categorized into two, namely internal factors and external factors.

A. *Internal Factors*
1) Motivation

The first internal factor affecting teachers' technology skills and mastery is motivation. Internal motivation is a crucial factor underlying teachers' technology skills and mastery. Low motivation can be a significant obstacle for teachers in keeping up with technological developments and adapting to rapid changes. Internal factors that contribute to teachers' low motivation to learn technology include family conditions, lack of appreciation, and insecurity. Unfavorable family conditions, such as domestic disputes, financial burdens or the health of family members, can divert teachers' focus and enthusiasm in learning technology. This is understandable, given that these conditions can cause stress and anxiety that impact on concentration and motivation. Lack of appreciation from the school or community for teachers' efforts in learning technology can also reduce their motivation. Teachers who feel their efforts are not appreciated tend to be discouraged from continuing to learn and develop their technological skills. Lack of confidence in their technological abilities is also a significant inhibiting factor. Teachers who feel unable to master the latest technology may be reluctant to learn more. This can be caused by various factors, such as lack of experience, minimal training, or fear of failure.

2) Laziness

The next factor that becomes an internal obstacle faced by teachers in implementing learning technology is laziness. This can cause teachers to procrastinate learning

new technology and not utilise it optimally in the learning process. Besides laziness, lack of discipline in managing time and completing tasks can also be a barrier for teachers. Undisciplined teachers may find it difficult to attend technology training or take the time to learn new apps and platforms. This factor can cause teachers to fall behind in technology development and not be able to optimize its use in learning. Lack of interest in technology can also be a barrier for teachers. Teachers who are not interested in technology may feel bored and reluctant to learn about it. This can make it difficult for them to keep up with the latest technology trends and utilize them in learning. Finally, the habit of procrastinating can also be a barrier for teachers. Teachers who are used to procrastinating may put off learning new technologies until the last minute, or even not learn about them at all. This may cause them to be unprepared to use technology in learning and unable to achieve the expected learning objectives.

3) Basic Skills

One of the factors that hinder teachers in utilizing educational technology is the lack of basic skills in using computers and the internet. This can be a crucial prerequisite in learning more complex educational technologies. This lack of basic skills can make it difficult for teachers to keep up with technological developments and adapt to change. Another factor is the lack of education and training related to educational technology. Lack of formal and informal knowledge about the concept and use of technology can make it difficult for teachers to implement it in the learning process. This is compounded by a lack of experience in using technology, which can lead to teachers' hesitation and reluctance to try new technologies.

B. External Factors

1) School Policy

School policies that do not support the use of technology can hinder teachers in learning and using technology in learning. One of the main inhibiting factors is the lack of adequate infrastructure, such as the availability of computers, internet and other technological devices in schools. This makes it difficult for teachers to access and utilize technology in the teaching and learning process. In addition, the lack of support from the school, such as training, guidance and other resources, is also a significant inhibiting factor. This lack of support can make it difficult for teachers to learn and utilize technology effectively. With adequate support, teachers can more easily learn and use technology in teaching and learning, ultimately improving the quality of education for students. Finally, rigid school rules on technology use can also limit teachers' creativity in using technology in learning. These rules may be made with good intentions, such as to prevent misuse of technology or to ensure student safety. However, in some cases, they can be too strict and inflexible, hindering teachers' innovation and creativity in using technology to improve learning quality. This finding suggests that there needs to be more serious efforts from the school to support the use of technology in learning. These efforts can include providing adequate infrastructure, training and guidance for teachers, and making rules that are more flexible and open to innovation. With adequate support, teachers can more easily learn and use technology in learning, thus ultimately improving the quality of education for students.

2) Lack of Regular Training

It was found that the lack of regular training by the school is one of the factors inhibiting the development of teachers' ability to use technology. This is manifested in two aspects, namely the frequency and quality of training. Lack of frequency of training results in teachers being limited in acquiring the latest knowledge and skills related to technology. Teachers who do not attend training regularly risk falling behind in keeping up with the rapid development of technology, resulting in less-than-optimal implementation of technology-based learning in the classroom. In addition, the lack of relevance of training materials to teachers' needs is also an inhibiting factor. Training materials that are not in accordance with the needs and context of learning in the classroom can make teachers feel that the training is not useful and cannot be applied directly in the teaching and learning process. Furthermore, low quality training, such as incompetent instructors or inappropriate training materials, can also hinder teachers' skill development. Instructors who do not have sufficient expertise in technology and pedagogy risk delivering training materials that are ineffective and not easily understood by teachers. Therefore, schools need to organize technology training for teachers on a regular basis with sufficient frequency, materials relevant to teachers' needs, and guaranteed training quality with competent instructors and appropriate training materials. This is expected to help teachers develop their ability to use technology and improve the quality of learning in the classroom.

3) Limited Technology Access

Limited access to technology is a significant barrier for teachers in learning and applying technology in the learning process. This is reflected in teachers' difficulties in accessing technological tools such as computers, the internet and educational software. The lack of technology infrastructure in schools, such as unstable internet networks and poor connectivity, further exacerbates this situation. This condition results in teachers being limited in utilizing technology to improve the quality of learning. Teachers who do not have adequate access to technology are hampered in finding innovative digital learning resources, developing interactive teaching materials and using effective online learning platforms. This can lead to gaps in the application of technology in learning among teachers and result in uneven learning quality for students. Consequently, efforts to enhance access to technology for educators must be a priority. Educational institutions must provide a robust technology infrastructure, including a dependable internet network and an adequate supply of technology devices. Additionally, educators must undergo training and professional development to enhance their proficiency in utilizing technology for learning. This will enable educators to leverage technology to enhance the quality of learning and provide a more meaningful learning experience for students.

Discussion

In this discussion section, the researcher will endeavor to elucidate the findings of the data processing undertaken in the course of the research project. The following aspects will be presented in accordance with the formulation of the problem, which includes an analysis of the teacher's ability to integrate technology with learning, with a particular focus on English language learning. Additionally, an analysis of the measurement of the level of mastery of teachers in the use of technology in English language learning will be

provided, as well as an analysis of the factors that influence the measurement of the level of mastery of teachers in the use of technology in English language learning. The results of the questionnaire indicate that there is considerable variation in the ability and mastery of teachers in integrating technology into their teaching, particularly in the context of English subjects. The measurement of the teachers' ability and mastery of technology is conducted through questionnaires, which are then reinforced by data from the findings of interviews and observations. These are designed to assess the teachers' ability and mastery of technology. The results of the analysis show that the level of teachers' ability and mastery of technology varies. Overall, of the four research respondents, three have integration skills at the "Medium" level, with an average percentage of 75%.

In terms of technological proficiency, three of the four research respondents were classified as "Adapting," while one was designated as "Exploring." This corroborates the initial questionnaire analysis, which categorized the technological proficiency of English teachers in the Sukaraja Commissariat as "Medium." This finding suggests that English teachers in grade 7 at the Sukaraja Commissariat have not yet attained the requisite ability and mastery of technology, particularly in terms of integrating technology into the learning process. This should be a matter of serious concern for the school or local government, as it represents an opportunity for improvement in the teachers' technological competence in a sustainable manner. This finding can serve as a foundation for further in-depth research with a more extensive and diverse sample, with a particular focus on specific aspects of learning technology implementation. In general, teachers demonstrate a basic understanding of technology and are able to utilize some simple applications to enhance learning. However, there is still a dearth of skills in integrating technology in a creative and effective manner within the teaching and learning process.

In light of the aforementioned interview results, which were subjected to a detailed analysis with a view to gauging teachers' proficiency in integrating technology with the learning process, particularly in the context of English language learning, it can be posited that motivation, capability and external support exert a combined influence on the efficacy of teachers in facilitating the learning process. Therefore, efforts to improve the quality of educators and education must be comprehensive and cover all three aspects. A number of factors influence the level of ability and mastery of technology, including internal and external factors. Internal factors include fundamental considerations that are crucial for improving human resources in education and delivering improvements in the quality of education in Indonesia. These include ensuring adequate facilities and infrastructure in classrooms, providing continuous training for educators, ensuring the timely distribution of teacher professional allowances (TPG), implementing an accountable education system, and conducting school-scale subject teacher meetings (MGMP). In addition, external factors include school policies that do not support the use of technology, which can impede teachers' ability to learn and utilize technology in the classroom. Furthermore, a lack of regular training by the school can restrict teachers' acquisition of the latest knowledge and skills related to technology. Additionally, limited access to technology represents a significant obstacle for teachers in learning and applying technology in the learning process.

Subsequently, an observation of the English learning process as a whole revealed that the four respondents lacked the requisite ability to master technology. Nevertheless, they

have demonstrated commendable efforts to utilize technology and apply active learning principles. Nevertheless, there are still some obstacles that need to be overcome in order to improve the effectiveness of the learning process. The researcher recommends that further research be conducted to examine in greater depth the factors that influence students' focus and active participation in English language learning.

CONCLUSION

The results of the research described above, which related to the analysis of teacher ability through the TPACK framework on the Merdeka Curriculum in 7th grade at Sukaraja Commissariat, can be summarized as follows:

1) The analysis of teachers' ability to integrate technology with learning, with a particular focus on English language learning, can be conducted through a variety of methods. These include interviews with four respondents, the distribution of questionnaires to four respondents, and the observation of the Indonesian language learning process. The results indicate that the level of ability and mastery of technology among teachers varies. The findings indicate that the four research respondents demonstrated integration skills at the "Medium" level, with an average percentage of 75%. However, the results of the interviews and observations in the learning process suggest that the teachers' ability to integrate technology with learning, particularly in the context of English language learning, remains limited. This highlights the need for motivation, competence, and external support to enhance the effectiveness of teachers in carrying out the learning process.

2) The analysis of the level of teacher mastery in the use of technology in English language learning can be conducted through a variety of methods, including interviews with four respondents, the distribution of questionnaires to four respondents, and the observation of the English language learning process. With regard to the results, it can be stated that, at the level of mastery of technology, three of the four research respondents are at the "Adapting" level, while one respondent is at the "Exploring" level. This corroborates the findings of the questionnaire analysis at the outset, which classified the mastery of technology among English teachers in the Sukaraja Commissariat as "Medium." This suggests that grade 7 English teachers in the Sukaraja Commissariat have not yet attained the requisite ability and mastery of technology, particularly in integrating technology into the learning process. Furthermore, the results of the interviews and observations conducted during the learning process indicate that the four respondents still lack the ability to master technology in their use of technology in learning English. It is evident that the effectiveness of teachers in carrying out the learning process is contingent upon a number of factors, including motivation, ability and external support.

3) The level of ability and mastery of technology is influenced by a multitude of internal and external factors. These internal factors include fundamental factors that must be given serious consideration if improvements in the quality of education in Indonesia are to be delivered. While external factors include school policies that do not support the use of technology, which can hinder teachers in learning and using technology in learning, lack of regular training by the school, which causes limitations for teachers in acquiring the latest knowledge and skills related to technology, and limited access

to technology, which represents a significant obstacle for teachers in learning and applying technology in the learning process.

REFERENCE

Creswell, J. W. (2019). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.

Hew, K. F., & Brush, T. (2020). Blending technology into teacher education: A TPACK-based approach. *Journal of Educational Technology Systems*, 49(1), 3-22.

Koehler, M.J., Mishra, P., Akcaoglu, M., & Rosenberg, J.M. (2013). *The Technological Pedagogical Content Knowledge Framework for Teachers and Teacher Educators.*

Koehler, M. J., Shin, T. S., & Mishra, P. (2012). *How do we measure TPACK? Let me count the ways. In Educational technology, teacher knowledge, and classroom impact: A research handbook on frameworks and approaches* (pp. 16-31). IGI Global.

Lyublinskaya, I., & Kaplon-Schilis, A. (2022). Analysis of differences in the levels of TPACK: Unpacking performance indicators in the TPACK levels rubric. *Education Sciences*, *12*(2), 79.

Merriam, S. B. (2018). *Qualitative Research: A Guide for Practitioners*. Jossey-Bass.

Rahmadi, I. F. (2019). Technological pedagogical content knowledge (tpack): kerangka pengetahuan guru abad 21. *Jurnal Pendidikan Kewarganegaraan*, *6*(1).

Sirait. (2021). Analisis Pengaruh Kompetensi Guru Terhadap Keberhasilan Pembelajaran Di Sekolah Dasar Bethel Tanjung Priok Jakarta Utara. *Jurnal Teologi*, 6(1).

Somantri, D. (2021). Abad 21 pentingnya kompetensi pedagogik guru. *Equilibrium: Jurnal Penelitian Pendidikan dan Ekonomi*, *18*(02), 188-195.

Sugiyono. (2022). *Metode Penelitiam Kualitatif dan R&D*. Bandung: ALVABETA CV.