

## **Probing The TPACK and Hots Implementation among English Teachers of Professional Education**

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### **Abstract**

The COVID-19 has a big impact on education and open new chances and possibilities for digitalization of the educational system. Technology helped many people including in teaching and learning process in the classroom. A teacher of professional education must understand digital learning in which the method support students to meet the needs of the 21st century. This paper will present the teachers' perspective towards the integration of higher order thinking skills (HOTS) and TPACK into the development of planning, implementation and evaluation processes during the pandemic situation in many school levels. The study employed qualitative research in which the data was taken from questionnaires, observations, and interview to English teachers of professional education program. It was found that the implementation of HOTS in learning were applied in the form of analysis during discussion, integrated to the basic competence and its indicators, problem-based learning, and to the evaluation processes. Teachers have integrated technology to interact with their students (71,4 %) and most of teachers argue that pedagogical and content knowledge are both more important (92,9 %). Applications used by teachers as tools for learning during the pandemic are WhatsApp, Google Classroom, Canva for Education, Google Meet and Zoom Meeting, etc.

**Keywords:** *TPACK, HOTS, Teaching and Learning, Professional Education*

### **Introduction**

Professional teachers have an important role in developing effective learning processes in order to achieve students' success to face 21<sup>st</sup> century challenges. Teachers are supposed to have four competences to make them become a professional in education: Pedagogic, Personality, Professional, and Social Competences. As professional teachers, pedagogical competence can be defined as the ability to communicate and learn with students, to set the classroom, and to manage teaching-learning planning, process, and assessment. This study aims to find the views and practices of the teachers of professional education programs (PPG) in integrating higher order thinking skills, HOTS and TPACK into the classroom.

Technology has a great impact on education and influences students' thinking ability. In addition, this era of technology and education is accompanied by the need for higher order thinking skills, or called as HOTS (Kurniawati & Mursyid, 2019). The role of technology in the teaching and learning is varied to optimize the learning output (Ntongieh, 2016). Today, many schools migrate from conventional content material to the virtual content material in a big amount of commercial, open source, including the English language learning content (Adkins, 2014).

COVID-`19 pandemic from more than two years ago has changed the way of teaching, students' learning processes, and access to knowledge. The pandemic has been an obstacle and also a challenge for many people. All sectors from health, social, economy, and other sectors

including education have been influenced by the pandemic. Pandemic caused school closures and brought significant disruptions to education in the world (UNESCO, 2020).

Because of the pandemic, all aspects of life have been stopped, even delayed (Angdhiri, 2020). In fact, Education must be continued whatever the situation is. Students have been learning from home for months to avoid COVID-19 transmission. Learning from home is also implemented to fulfill students' right to education, to protect teachers and students from bad impact of the disease caused by coronavirus, and to prevent the virus transmission to the teachers, students, and families. The Minister of Education and Culture has developed distance learning applications based on android: "portal Rumah Belajar"; one of the apps offered by the government (Kemdikbud, 2020). All people from the governments, educational institutions, parents, teachers, until students have been struggling to access education during the pandemic situation because education has a very pivotal role for life, it is more than only a subject matter.

So, teachers should think and innovate on how they can help their students facing the challenges of the era and during pandemic situations. This study aims to find the teachers' perspective towards TPACK and HOTS. How is the implementation of HOTS by teachers to the practices in integrating higher order thinking skills (HOTS) and TPACK into the classroom which are implemented by teachers.

The study employed qualitative research in which the data was taken from questionnaires and interviews with English teachers of professional education programs. The participants were 30 teachers of PPG programmed in Indonesia from different provinces, various school levels and experiences. There were 20 open-ended questions which were given to the respondents. The research was conducted to prove that learning with digital can give more experience for students in learning English. The questionnaire was given to those teachers who join the PPG programmed and they consisted of 46,7 % of Senior High School teachers, 46,7 % of them were Junior High School teachers, and the rest were teachers at Elementary School.

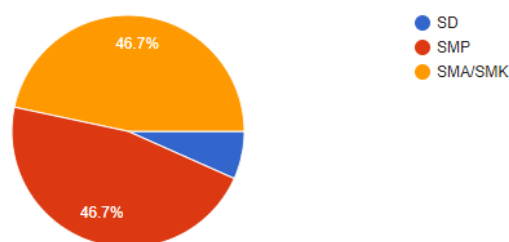


Figure 1. Participants of the study who join teachers' professional education program

#### *Teachers' Views on the Integration of Technology into Learning and Its Implementation*

From the data questionnaires, teachers have integrated technology to interact with their students (71,4 %) and most teachers argue that pedagogical and content knowledge are both more important (92,9 %). Applications used by teachers as tools for learning are WhatsApp (85,7 %), YouTube (71,4 %), Google Classroom (64,3 %), Google Meet and Zoom Meeting (50 %), etc. The implementation of HOTS in learning were applied in the form of analysis during discussion, integrated to the basic competence and its indicators, problem-based learning, and to the evaluation processes.

It has found that students are able to explore their thinking ability on the level of application and production. On taxonomy Bloom, the processes of producing visual and verbal language are categorized as higher order thinking skills (HOTS). On the speaking practice side, the TPACK has been identified to help teachers in measuring five points such as pronunciation, conversation, video viewing, speech act, and authenticity of speaking progress. The writer also found that the process of learning continuously happened in the classroom and outside the class.

Many efforts have been implemented including the online system of schooling, online and offline learning program, distanced-learning from home, and so on. However, a pandemic is not an obstacle for teachers to teach their students as well as for students to educate themselves by learning from home. Some challenges to the process of learning during a pandemic are designing suitable programs for students, appropriate gadgets and supported features, fast internet connection to open multiple applications, attention from parents and self-motivation. School program of online-offline learning creates a new point of view, that education can be implemented anywhere. WhatsApp and Instagram as examples of applications that can be used to support students' learning from home.

In order to find out the teachers' perspective, here are the several interview questions asked and teacher's answers as they respond to those questions. The first question is asked: is it important to develop the integration of technology into learning? As a result, 73,3 % of teachers responded that it is important to integrate technology, while the other 26,7 % answered normally (it is not too important). As a second question, how important is it for a teacher to have the skills to master the subject being taught? As many as 93.3% of respondents answered that the skill to master the subject is very important.

The next question is about how teachers do technology-integrated learning planning. As a result, their response was; Incorporating elements of Technology into the learning and teaching process, which are listed in the lesson plan (RPP); Making exam questions such as Daily Tests, Mid-Semester Exams, and Final Semester Exams using Google forms, making learning videos, teaching media using an LCD projector, making assignments on student worksheets to make Digital greeting cards, etc.; There is also a response in the form of efforts to integrate certain applications into learning, such as the combined use of Genially, Canva, Kahoot, Vocaroo, Wonderwall, Lectora, Mentimeter, Google Classroom, Google Doc, Google Slides, WA, GMeet, YouTube etc. in lesson plans. As an illustration, it is shown in the following image.

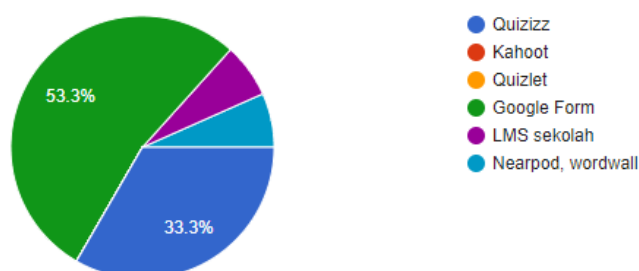


Figure 2. The applications and learning management system used by teachers

Furthermore, the teacher's response to which was more important between mastering ICT technology for a teacher or being skilled at mastering the subjects taught, most of the teachers

agreed even though some of them think that ICT was not too important than the subject matter. The next question is how do students respond when learning to use applications for learning? The answers are various such as some students are happy and like it, some don't enjoy it; Many students become enthusiastic and enthusiastic about learning; However, most of them are more focused on the application than the process of learning English.

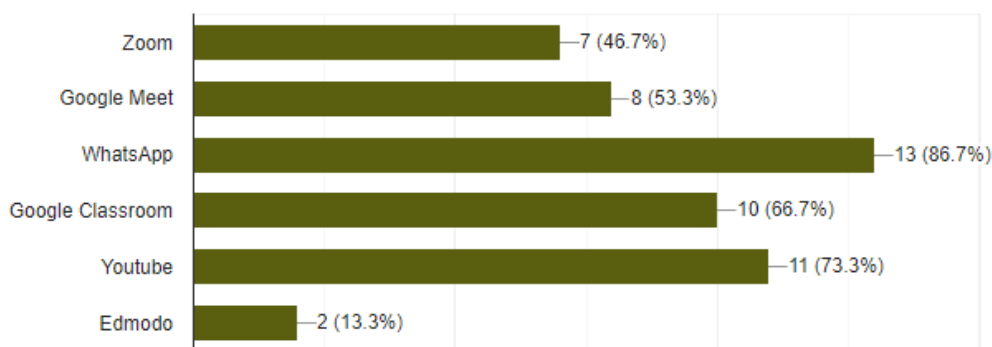


Figure 3. Application used during the pandemic for the direct or indirect communications

The next question asked to the teachers was about how they can communicate with their students and what are the applications used by most of the teachers either directly or indirectly. Based on the picture above, it was presented that WhatsApp was the most used application by 86,7% of the teachers and also students. The second place was YouTube in which they were used to watch the video and students can give their expression, understanding, and response by clicking the like button and writing in the comments. As the media to communicate with video on virtual meetings, Zoom and Google meet were used by about 46,7 % - 53,3 % of the teachers and their students.

#### *Teachers' Experience of Designing and Implementing HOTS*

Based on questionnaire data and direct interviews, about whether teachers design learning based on higher order thinking skills (HOTS), it was found that 42% of respondents did it themselves, while 35.7% with the help of other parties, and the rest had never designed HOTS-based learning. Furthermore, when asked about the process of designing and implementing learning based on higher order thinking skills in the classroom, they responded as follows; by using learning objectives, achievement indicators, which are already in accordance with the high level of thinking; Stimulate students to look for material sources from different sources; Provide opportunities for students to ask questions and discuss; and problem-based learning to be solved in the learning process.

As a fact, the findings in the planning, implementation, and evaluation of technology-based learning using the TPACK approach and higher order thinking skills (HOTS), here are several responses from teachers; 1) The TPACK approach that teachers have applied has only been limited to using technology in learning. For example, by using projectors, learning videos and the like. HOTS skills are also limited to the selection of indicators, and even then, it does not always apply to all basic skills; 2) Students seem not used to using the TPACK approach and higher order thinking skills (HOTS) but after doing it several times, students begin to look active and enthusiastic in learning activities; 3) Before the learning process, the teacher prepares learning videos either made by themselves or from YouTube. During the learning

process, the teacher plays the video and asks students to observe the content of the video, provides opportunities for students to ask questions and discuss, then provides reinforcement and provides evaluation via google form.

## **Conclusion**

The use of technology not only can improve the ability but also, it's about promoting positive attitudes in the direction of learning including English. Teachers' perspectives towards TPACK and HOTs integration to learning were positive and they believe that learning should be improved in order to optimize students' achievement. Many efforts have been implemented by teachers such as designing the suitable programs for students, utilizing various applications for teaching and learning, assessment and evaluation.

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