

# EFL Classroom With Tpack Framework Towards Higher Students' Critical Thinking: Teachers' Voices

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## Abstract

The study aims to elaborate the EFL teachers' voices on implementing critical thinking within EFL classroom with TPACK framework at higher education level. The participants of this study were three higher education teachers from two different universities in Indonesia. The data were obtained by using semi-structured interview and analyzed through thematic data analysis including transcribing, identifying, coding, generating themes, reviewing, classifying themes, and interpreting data. The result showed that they appeared to view critical thinking positively and have high awareness to implement critical thinking in EFL classroom with TPACK Framework. However, they were faced with various challenges mainly come from time management and students' ability. The results of the present study may help higher education teachers to determine and employ teaching strategies that may improve students' critical thinking skills in learning English language as a foreign language with TPACK framework.

Keywords: critical thinking, TPACK framewrok, EFL classroom teaching

## INTRODUCTION

Qualified human resource is demanded in the 21<sup>st</sup> century to compete globally. People who are able to apply, manage and construct thinking skill are considered as qualified human resource. Therefore, the development of the skills required in 21<sup>st</sup> century in education must be focused to fulfill students' need for career readiness (Voogt & Roblin, 2012). The 21<sup>st</sup> century skills in students' learning process and in students' everyday lives are related to critical thinking in which including motivation, metacognition and creativity (Moeti et al., 2016). Hence, one of the significant skills in today's learning process is the ability to think critically.

It is essential for students, especially higher education students to have well preparation to think analytically and critically, cooperate successfully, solve problem efficiently and communicate effectively in the workplace. Thus, critical thinking plays important roles in a person's life both in academic and social aspects. In fact, a person with "good" ability in thinking tend to have wide opportunities in their academic, professional and everyday life (Franco et al., 2017). A person with the ability to think critically tend to do better in the workspace and social sphere since they are able to analyze certain issue as well as complicated problem from different point of view which makes them less likely to be provoked by any cases that are out of concern. As the importance of critical thinking for higher education students. It must be emphasized in English language learning and teaching process since English is international language and main communication among people around the world who speaks different languages. Moreover, it becomes a compulsory subject in certain education level, it also used in agreement making, transaction process and business interest internationally.

English language is considered as a foreign language in Indonesia since it is not commonly used as a tool in communication exclude for them who has interest in English language and willing to use it in their daily life. As cited from Broughton et al. (2003), a language that does not play important role in social life and national communication can be considered as foreign language. Moreover, teaching English as foreign language is challenging for several reasons: The students are not accustomed to the language, there are major differences in grammatical structure from students' first

language, students experience anxiety in communicating using English language, students have less interest in learning English and so on.

There are four English skills, specifically: Speaking, writing, listening, and reading. Those skills are intentionally categorized into two terms; productive (speaking and writing) and receptive (reading and listening). This study will only focus on the speaking class of English as foreign language According to Aungwatanakun (1994 as cited in Oradee, 2013), the ability to speak is the most important skills by the reason of its role as basis for communication in foreign language teaching and learning. Therefore, Critical thinking skills has to be involved in speaking class in order for students to be able to develop their own ideas, form arguments, synthesize and express complex information through speaking in English language.

The term "TPACK" (Technological Pedagogical and Content Knowledge) refers to a framework that offers educators' opinions and expertise when creating lesson plans to help teachers bring about real change for students. Technology is the knowledge that teachers must possess in order to prepare their pupils to understand the learning process more effectively, more effectively, and, of course, in accordance with the times. A framework known as TPACK or TPCK explains how teachers see how technology, material, and pedagogy interact with one another (Koehler et al., 2004). This TPACK paradigm was developed by Shulman (1986, 1987), who described pedagogical content knowledge. Subsequent study has also looked into the significance of TPCK (Technology Pedagogical Content Knowledge) (Mishra & Koehler, 2006). Briefly put, TPACK emphasizes the interaction and relationship between Content (C), or the subject matter being taught, Technology (T), which includes contemporary technology like computers, the internet, digital video, digital whiteboards, applications, and websites, and Pedagogy (P), which includes gathered practices, learning objectives, processes, strategies, procedures, teaching methods, assessments, and assessments (Drajati, 2020).

Brown (2004) mentions that the linguistic factor alone should not be the limitation of curriculum, but the development of the art of critical thinking is also included. Seeing the important from speaking skill, learning activities involving critical thinking and high-level problem-solving skill needs to be

conducted in English speaking class. According to Živković (2016), the positive result of students' learning is achieved through mindful learning and teaching process which focused on critical thinking skills. Thus, both students and teachers have to be aware of the advantage of think critically and participate actively in learning and teaching speaking.

In this case, this study is focused on the implementation of critical thinking skill in higher education level in Indonesia and higher education EFL teachers' perceptions on its application in speaking class with TPACK framework. Very few previous studies have examined higher education EFL teachers' perceptions on the implementation of critical thinking. A study done by Fajarini (2018) discovers that critical thinking and its framework have not been fully understood by part of teachers in Indonesia. Therefore, it affects students' acquisition in learning in English class. Facione (2015) finds that poor communication, failure in learning as well as decision making caused by incapability in applying critical thinking skills. Previous study done by Pikkert and Foster (2014) at Satya Wachana Christian University Indonesia shows that secondary school students of America have higher level of critical thinking skills than third year English students of Satya Wachana Christian University. Whereas a study conducted by Fakhomah & Utami (2019) finds higher education teachers face few challenges or obstacles in implementing high order thinking skills in English language teaching, such as time and the students' ability. Overall, this study differs from previous studies on the implementation of critical thinking in EFL speaking class of higher education in Indonesia.

## **REVIEW OF RELATED LITERATURE**

### **English as a Foreign Language**

English as a foreign language (EFL) is a term to distinguish English language as mother language and foreign language in language setting (Arkam, 2015). Generally, English as a foreign language implies that English language is not widely spoken in certain countries, for instance: Indonesia. Therefore, most of the EFL teacher in Indonesia are typically non-native English speakers due to the fact that English is not the mother tongue in Indonesia. Higher education EFL teacher in this case is a

person who obtained English teaching qualification from education institution, and officially assigned to teach English as foreign language in higher education or university (Rasyid, 2001). To say shortly that EFL teacher is an expert in English field who is professionally teaching English.

### **Critical Thinking**

According to Scriven and Paul (1996), critical thinking is the intellectually disciplined process of consciously and expertly picturing, implementing, analyzing, incorporating, and/or assessing information that is derived from, or gained by, observing, experiencing, reflecting, reasoning, or communicating as a guide to belief and behave. Whereas, having a set of strategies and cognitive skills and the ability to apply those knowledge and skills to increase the opportunities of success that is beneficial for one's career can also be defined as critical thinking (Halpern, 2014). In the other word, individual who thinks critically has the ability to optimize their proficient competency to improve their performance and achievement in order to reach their goals. Likewise, critical thinking is a part of the cognitive aspect related to one's capacity and the optimization of their cognitive skills based on the suitable context. Franco et al., (2017) states that critical thinking is a cognitive construct that is based on both personal skills and dispositions, as well as the situation in which they are applied. Therefore, a person's way of thinking depends on their ability to control and manage their thought with certain criteria and standard in analyzing and evaluating information in order to elevate their thinking skills. On the basis of convincing information critical thinkers may consider, appraise, analyze, and evaluate material that is credible (Omidvar & Sukumar, 2013). Previous studies suggest that critical thinking involves a number of sub-skills, including understanding, conceiving, analyzing, assessing, evaluating, and reflecting (Hughes & Davies, 2014). In short, critical thinking is an intelligent process of thinking which allows individual to be to receive, comprehend and deliver complex information adapted from events in their surroundings.

Critical thinking is an internal construct that is important in a person's social life as well as their academic learning (Wilson, 2016). People with the ability to think critically

tend to achieve more in education field and workspace. According to the literature, someone who has ability of this kind of “excellent” thinking (Franco et al., 2017) hold a bigger chance of success, in the job market, in academic settings and in daily life (Dwyer et al., 2011). The fundamental goal of learning in the higher education level is critical thinking, however, it has to be considered that different teacher has different perception in framing the reference of critical thinking activities employed in the learning and teaching process (Moon, 2007). Then, it affects the way students build their own critical thinking skills based on the activities employed in stimulating the students’ thinking. Seven activities involving critical thinking namely, reviewing one’s argument, evaluating a thing, developing opinions, reflecting themselves, reviewing an incident, engaging response development to the arguments of others, and habit of engagement with the world. Moreover, Moon (2007) discovers that critical thinking is to construct one’s argument, deconstruct ideas or synthesize a range of ideas connected with complex ideas. However, as we know that most of Indonesian students are set to be passively following activities in the class due to three factors namely, limited time in learning, big number of students and classroom facilities and condition. Thus, based on the curriculum itself, higher education teachers are required to train students to become critical thinkers. Moreover, the importance of constructing students’ critical thinking skills is included in the aims of today’s education (Al-Hakim, 2012).

### **Review of Previous Studies**

The previous study conducted by Zhang et al (2020) involved higher education EFL teachers discovers that there was a gap between the participants’ perceptions on critical and their actual practice in teaching. In addition, a study done by Gashan (2015) finds that pre-service instructors lacked adequate knowledge of critical thinking abilities. The result of the study shows that pre-service teachers had positive perceptions of the importance of teaching critical thinking though they have less general knowledge of critical thinking. They admitted that they were not sure if they necessary abilities needed to bring critical thinking to their students. Whereas the result of the study done by Bedir (2019) demonstrates that teachers were moderately

aware of and involved in the implementation of critical thinking though they had high positive perceptions towards them.

In implementing critical thinking, teachers are dealing with difficulties and problems. It can be shown from the result of study done by Fakhomah & Utami (2019). The study indicates that the participants face some difficulties or obstacles in implementing high order thinking skill in English language teaching, such as time management and the students' ability. Furthermore, Tuzlukova et al (2018) discovers that higher education teachers lack support in implementing critical thinking. Therefore, a study done by Saleh (2019) reveals that administrative barriers and cultural setting limited the effectiveness of this implementation of critical thinking in English class.

Smith et al. (2018) proves that integrating critical thinking skill into learning design was a suitable way to enhance students' critical thinking capacities yet teacher was still having problems in its implementation. To overcome the difficulties faced by the teachers, a study by Papak et al. (2017) reports that project activities are useful to enhance students critical thinking. Moreover, the findings of the study conducted by Almulla (2018) suggests that that involving open-ended questions to the class, performance centered tasks, and comparing and contrasting different point of views were the most useful teaching activities in fostering students' critical thinking skills. The findings also highlights that these abilities are not only affected by the teaching practices, but also by other factors related to the broader academic environment, such as school resources.

Whereas regarding the implementation of TPACK in EFL classroom, there have been some previous studies on it. The use of integrating technology in teaching English as a foreign language has been studied by certain researchers. In their analysis of pre-service teachers' use of technology during the 12-week teaching practicum in an EFL environment, Kale (2017) and Gönen (2019) discovered that integrating reflective practice and situated learning experiences (such as the teaching practicum) are efficient ways to give pre-service teachers TPACK. Bustamante (2017) used a mixed methods research case study and a theoretical framework to describe the creation of a joint display utilizing the TPACK model. Ishak and Abu (2018)

went into more detail on the application of Augmented TPACK in TEFL instrumental design, and Schmid et al. (2020) looked into the relationship between self-reported TPACK and variations in the usage of digital technology in lesson plans. The efficacy of synthesising qualitative evidence (SQD) model preparation strategies for instructors for TPACK was examined by Tondeur et al. in 2019. Tseng (2018) looked at how six English teachers used design thinking to implement various TPACK while considering contextual issues that affected their web-conferencing instruction over the course of 14 weeks. This study looked at the design talks that the six remote teachers had about creating online lessons and activities and resolving contextual issues.

The similarity between the previous studies and this present study is the topic which investigates about teachers' perceptions on the implementation of critical thinking in EFL class. The differences between this study and the previous studies are the participants were higher education EFL teachers of universities in Central Java and North Sumatra, Indonesia. This study focuses on the perceptions of higher education EFL teacher in on the implementation of critical thinking in speaking class.

## **RESEARCH METHOD**

### **Research Design**

According to the theory from Creswell (2012), this study was descriptive qualitative study. In descriptive study, the study is aimed to explain and elaborate about a current issue and in its process gathering and organizing data to obtain a general conclusion are included.

### **Participants**

This study involved three higher education EFL teachers who are teaching EFL in university. The first participant was a female teacher who holds doctorate degree and has been teaching English in higher education for twenty-two years. The second participant was a male teacher who is currently doing his PhD program in Australia and has been teaching English in higher education for eleven years. The third participant was a male



teacher who is pursuing his PhD degree in Australia and has been teaching English in higher education for four years.

### **Instrument**

Instrument is a set of tool used in the study to gather the data. In qualitative study, the instrument commonly used are questionnaire, interview, observation, documents, recording, journals, etc (Gay et al., 2012). This study employed semi-structured interview. Creswell (2012) states that semi-structured interview with open-ended question is widely used in qualitative study. Hence, semi-structured interview with open-ended question was employed in this study. The interviews were conducted in both online and offline. The online one was conducted through zoom call and the offline was done at campus.

### **Validity**

The validation approach widely used is expert review (judgement), the instrument was reviewed by the supervisor of this study through validation rubric by Castillo-Montoya (2016) to assess the criteria of the instrument to be considered as a valid instrument. The questionnaire was developed based on review of relevant literature to ensure that the instrument is appropriate to be employed in the study. Furthermore, the transcribed data obtained from the interview were evaluated by the interviewees for the validation. For the trustworthiness, the data was analyzed through the expert view to address the reliability (Gay et al., 2012). In examining the trustworthiness of data collection process, the transcribed interview were approved by the interviewees and the responses given from each participants were checked and compared to ensure the dependability of the study findings.

### **Procedures for Collecting Data**

This study used semi-structured interview. The procedures for collecting data are elaborated as follows:

#### **Preparing Question Lists**

Question lists were prepared firstly in order to support the process of gaining the data. Furthermore, the question lists assisted the interview process to remain the topic of higher

education EFL teachers' perceptions on the implementation of critical thinking in speaking class.

#### Conducting Interview

The further step after designing question lists was conducting the interview to collect information and discover teachers' opinion related to the implementation of critical thinking in EFL speaking class.

#### **Data Analysis**

Data analysis was carried out after data collection. The data collected were analyzed using thematic analysis technique of Braun and Clarke (2006) combined and adapted with Bailey (2008). The steps of data analysis adopted in this study are elaborated as follows:

##### Transcribing

The first step of data analysis is transcribing. In this step, the writer transcribed the interview recording from the interview of three participants into written form.

##### Identifying

Identifying included highlighting the important points from the data. In this step, the writer read the transcribed data and highlight the crucial points from the data. After being highlighted, the data were familiarized to get the overview of the data.

##### Coding

Coding was the process which the data were divided into several sections and were labeled with shorthand code. In this process there were several codes gotten from the data, namely: The teachers' perceptions on critical thinking, the important of critical thinking in the classroom, the roles of critical thinking in EFL speaking class, the implementation of critical thinking in speaking class, critical thinking among students in learning speaking, and the advantages and disadvantages of implementing critical thinking.

##### Generating Themes

Generating themes was the process of combining several codes into single theme. The codes above were divided into two themes, each theme contains three combined codes. The themes were: (1) Higher education EFL teachers' perceptions on the implementation of critical thinking in speaking class

(consisted of: The teachers' perceptions on critical thinking, the important of critical thinking in the classroom, the roles of critical thinking in EFL speaking class), (2) Teachers' experiences in implementing critical thinking in EFL speaking class (Included: the implementation of critical thinking in speaking class, critical thinking among students in learning speaking, and the advantages and disadvantages of implementing critical thinking).

#### Reviewing

This step was done by checking the accuracy of the data grouping and return to re-check whether anything was missed out. The writer re-read and reviewed each theme and checked if there was a missing code or not.

#### Classifying Themes

Theme classification involved formulating each theme to understand the data. The themes were formulated into table to help the writer to understand the data for the next step of data analysis.

#### Interpreting Data

The last step was data interpretation. In this step, the writer described each theme in turn and explained the data. The writer then connected the current issue and previous studies with the research findings to draw conclusion and find the result of the study.

## **RESULTS AND DISCUSSION**

### **Findings**

#### **Higher EFL Teachers' Voices on the Implementation of Critical Thinking in EFL Class with TPACK Framework**

This part is aimed to find out higher teachers' perceptions on the implementation of critical thinking in speaking class. The data were gained through interview toward three higher education English teachers. This study found that there are three indicators of higher education EFL teachers' voices on the implementation of critical thinking EFL class with TPACK framework.

#### **EFL Teachers' Voices on Critical Thinking**

Teacher 1 defined critical thinking as the ability to judge, analyze, evaluate, and create not only general thought but also in depth thought. According to her, it is the process of thinking not only about the primary of a topic but also the issue and factors which underlie the topic itself. She stated that critical thinking is not just thinking of the surface of think but thinking of things in a thing or it also can be said that critical implies that someone makes judgement, analysis, evaluation, or creation. However, reflection as the component of critical thinking process is excluded from her explanation as she may assume that it is included in the process of thinking of things in a thing.

Teacher 2 viewed critical thinking as a thinking process which consist of questioning, analyzing, interpreting, and judging. He stated that critical thinking for me is the process of thinking critically by questioning, analyzing, interpreting, assessing and even includes the process of judging to something prior the statement, decision, judgment or action made. In his statement, he mentioned that the process of thinking critically is started by questioning and ended with judgment or action made. Therefore, it can be interpreted that critical thinkers are able to consider and evaluate material that is credible on the basis of convincing information and take reasonable action related to the information.

Whereas teacher 3 explained that critical thinking is the ability to analyze certain information and identify the ideology behind it for us to decide if any action related to the information are needed. He claimed that critical thinking is about the ability in your mind to critically analyse an information heard, listened, read, and found to identify the ideology behind it and to inform us further whether we need to believe that information or whether we have to take action because of that information. So, it is really about examining the information carefully in order to get the point to shape our believes and to lead us to do particular actions. The ability to think critically is related to a one's cognitive capacity. It has been mentioned by teacher 3 that critical thinking assists us to be more thoughtful in doing particular actions. Thus, to shape a person's way of thinking, the ability to control and manage their thought with certain criteria and standard is needed.

### **The Importance of Critical Thinking in EFL Classroom with TPACK Framework**

Considering the importance of critical thinking as one of the 21<sup>th</sup> century skills, teacher 1 agreed that critical thinking has crucial part in determining classroom dynamic. Critical teacher is supposed to have various learning activity, teaching media, and teaching sources regarding sophisticated technology applications in this dynamic era. Whereas critical students will participate actively in learning and cooperating with the teacher employing the technology. She said that critical thinking plays an essential role in determining classroom dynamic. A class with a critical teacher tends to have varied kinds of learning activities, media, and sources since the teacher always thinks of how to hold the dynamicity of an efficient class. A class with critical students will be a cooperative class to respond to the teacher's instructions aiming at driving students to be more critical.

In line with her statement, in this digital era there are plenty activities involving critical thinking which engage students' participation in the learning utilizing digital media and online learning sources as well as applications namely mind mapping, digital story-telling activity, and small group discussion using Kahoot, Padlet, Zoom, Gmeet. Thus, students are interested in learning and it stimulates them to be more critical.

Knowing the importance of critical thinking in the classroom, teacher 2 stated his belief about the importance of critical thinking as he emphasized that critical thinking should be incorporated in every English skill through the learning materials. He said that critical thinking should be incorporated in every skill of English as reflected in the materials. In reading, students should be encouraged to read and think critically to get answer questions either implicitly or explicitly. In speaking and writing, they have to be trained to express their ideas and argument critically. It also applies to listening in which they have to carefully listen beyond to what they hear. All of these efforts require more practices and may take time. It may be not easy especially in EFL context but every teacher has to work hard to assist students.

Seen from the actual practice, in the university critical thinking has been employed in each of English skills learning. In

reading, students are mainly asked to find the implicit case of the reading passage. In speaking and writing, students have to deliver their thought based on the facts, current issues and accurate data. In listening, students are required to listen carefully in order to fully comprehend the listening audio. Indeed, critical thinking plays important roles in English learning and teaching.

While examining the importance of critical thinking, teacher 3 believed that critical thinking does have essential roles in his teaching. He confirmed that he uses several approaches which employ critical thinking to improve students' performance in the classroom. He said that critical thinking has very important roles. In teaching speaking I use different approaches involving critical thinking in order to make sure that students' performance will be improved through the learning activities. As the high awareness of critical thinking is crucial for students, teaching and learning process involving critical thinking has been provided with different approaches. Hence, higher education teachers are facilitated with various choices of learning activities.

Based on the interview, teacher 1 confirmed that the implementation of critical thinking helps students in learning speaking and increases their interests in learning since the process of thinking critically requires them to talk and deliver their opinion from different aspects. She said that thinking critically means thinking to make judgement, analysis, evaluation, and creation. Implementing critical thinking means giving space to student to think of and to talk about something in different aspects. This is to say that implementing critical thinking in speaking class makes students speak more, engages students in different talks and activities. Those variations may stimulate students' interest in learning. Besides, she confirmed that students' performance is affected by the implementation of critical thinking in speaking class, students who thinks critically has several points of views in seeing something and it is stated that they have the logically structured way of speaking. She added that students who are accustomed to thinking critically will see something in different aspects. Thus, they will have more things to express that the others. They are also familiar with operating their logic in making judgement, analysis, evaluation, and creation so that the way they speak

will be logically structured. Thus, from the explanation above it can be concluded that she has high awareness on the importance of the implementation of critical thinking in EFL classroom with TPACK framework.

### **Discussion**

This study found that all the participants have precise and sure knowledge about critical thinking, it was proven by their ways of viewing critical thinking as the sequel of complex processes instead of find it as simple actions, it is in contrast with a study done by Gashan (2015), the result discovered that the teachers have inadequate and unsure knowledge about critical thinking. Nevertheless, a study by Zhang et al (2020) showed that teachers perceived critical thinking as a highly important cognitive skill directly related to information processing and evaluation. By the reason of their positive voices on critical thinking, they are highly aware of and involved in the implementation of critical thinking in speaking class, moreover, they have a strong belief toward the important roles of critical thinking in students' learning. The teachers believe that students with critical thinking skills tend to have better performance in speaking since they have wide topic to talk that they are able to elaborate their ideas and justify others' opinions and assumptions in logical way. In fact, this study proved that critical thinking engages students' interests in learning speaking as it stated by the teachers that there are various classroom activities with its involvement which stimulate students to speak more and shape their ways of thinking. Indeed, critical thinking gives them freedom of speech and free access to express their opinion in polite way. A similar finding from Smith et al (2018), the study obtained that integrating critical thinking skill into learning design was a suitable way to enhance students' thinking capacities.

This study discovered that all the participants are incorporating critical thinking in their speaking class through various activity. According to Saleh (2019) the effective strategies to enhance students' critical thinking can be done by encouraging students to look for reasons, raise question and analyze information. Hence, the participants use different methods in teaching speaking to bring different critical thinking among the students and get them to think critically. Teacher 1

employs oral presentation combining open-ended question and discussion session, moreover, she mentioned that guessing game and topic identification are also effective to engage students to speak more and participate actively in the class. Alike teacher 1, teacher 2 implements critical thinking by open discussion related to current topics or issues. Whereas teacher 3 creates democratic environment to shape students' ways of thinking through assumption inventory, debating and speaking in tongue.

Although they have used different method in teaching speaking, there are still challenges and difficulties in implementing critical thinking. It mainly comes from the time management because teachers have to design the learning which accommodates the learning process, students' ability and students' psychological state while they have busy life and two of them are currently pursuing their PhD degree. Furthermore, most of the students have not been familiarized critical thinking before that they need some times to comprehend and follow the lesson. Moreover, parts of the students are anxious in speaking in English due to the lack of self confidence and speaking ability. In line with study from Fakhomah & Utami (2019), the study indicated that the participants face some difficulties or obstacle in implementing critical thinking in English language teaching, such as time management and students' ability. Indeed, teacher 3 mentioned that obligatory curriculum, students' environments, and culture also influence the implementation of critical thinking. As revealed by Saleh (2019), some social, cultural, and administrative barriers limited the effectiveness of the implementation of critical thinking in English class.

According to the participants, to overcome the difficulties and challenges in teaching EFL with TPACK Framework, teachers have to familiarize and expose their students with critical thinking activities, learning from varied technological sources activities and mastering EFL learning materials to adjust with appropriate critical thinking activities. Besides, teacher should demonstrate or give example and design instructional procedures that meet students need in learning and acquiring the language materials.



## **CONCLUSION**

Based on the result of the study, it can be concluded that the participants have precise and positive voices on the implementation of critical thinking in EFL classroom with TPACK framework. Three of them are highly aware of the importance of implementing critical thinking in English teaching and learning. Thus, they agreed that critical thinking engages students' interest in EFL classroom by the reason of various method can be employed in the learning. They are English oral presentation, open discussion, debate, and assumption inventory. Through previous activities students are required to speak more, trained to elaborate, and express their ideas, justify others' opinions and assumptions, think logically, and create democratic environment.

However, there are some challenges will be got when conducting EFL classroom towards students' critical thinking such as the difficulties in managing time, students' ability to speak, students' anxiety and lack of self confidence, surrounding environment, culture, and the compulsory curriculum. Those factors hinder students' learning process and limited teachers' flexibility in teaching process. Thus, the participants overcome the problems by introducing critical thinking to the students, conduct learning with varied kinds of learning activities, media, and sources to hold the dynamic of an efficient class, be responsive as the responsiveness partly shows teachers' critical thinking and the most essential factor is motivating students and to make them comfortable in the learning.

From the study, students are suggested to participate actively in the learning and speak as much in any situation by seeing a topic from different perspective in order to train their critical thinking ability and improve their performance in speaking English. Teachers are suggested to design EFL learning activities involving critical thinking and teachers have to raise awareness of the importance of critical thinking in language learning as it helps students to be logical and confident in the EFL learning with TPACK framework with the assistance of technology employed. We also suggest the future researchers to investigate teachers' perceptions on the implementation of critical thinking at junior high school and senior high school due to the previous interview result which indicates the lack of

critical thinking skill among college students because parts of students apparently have not been familiarized with activities involving critical thinking at junior high school and senior high school level.

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### REFERENCES

- Al-Hakim, P. D. L. (2012). AL-Hakim, L. A. Y., & Hassan, S. (2012). Critical success factors of knowledge management, innovation and organisational performance: An empirical study of the Iraqi mobile telecommunication sector. *British Journal of Economics, Finance and Management Sciences*, 4, 31–49.  
<https://doi.org/10.1108/09727981311327767>
- Almulla, M. (2018). Investigating teachers' perceptions of their own practices to improve students' critical thinking in secondary schools in Saudi Arabia. *International Journal of Cognitive Research in Science, Engineering and Education*, 6(3), 15–27.  
<https://doi.org/10.5937/IJCRSEE1803015A>
- Arkam (2015). Successful Efl Teachers in Indonesian Educational. *AL-ISHLAH: Jurnal Pendidikan Islam*, 1–8.  
<https://doi.org/10.35905/alishlah.v13i1.484>
- Bailey (2008). First steps in qualitative data analysis: Transcribing. *Oxford Journal; Family Practice*, 127–131.  
<https://doi.org/10.1093/fampra/cmn003>
- Bedir, H. (2019). Pre-service ELT teachers' beliefs and perceptions on 21st century learning and innovation skills (4Cs). *Journal of Language and Linguistic Studies*, 15(1), 231–246. [www.jlls.org](http://www.jlls.org)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Broughton, G. (2003). *Teaching English as a foreign language* 2<sup>nd</sup> edition. Routledge
- Brown, H. D. (2004). *Teaching by principles an interactive approach to language pedagogy*. Longman Inc
- Bustamante, C. (2019). TPACK and teachers of Spanish: Development of a theory-based joint display in a mixed methods research case study. *Journal of Mixed Methods Research*, 13(2), 163-178.  
<https://doi.org/10.1177/1558689817712119>
- Castillo-Montoya, M. (2016). *Preparing for interview research: The interview*

- protocol refinement framework. *The qualitative report*, 21(5), 811-831. <http://nsuworks.nova.edu/tqr/vol21/iss5/2>
- Creswell, J. W. (2012). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* 4<sup>th</sup> edition. Garamond by TexTech
- Drajati, N. A. (2020). *Pembelajaran Bahasa Inggris SMA/SMK/MA dengan kerangka TPACK: Teori dan praktik*. Yuma Pustaka.
- Dwyer, C., Hogan, M., & Stewart, I. (2011). *The promotion of critical thinking skills through argument mapping*. Nova Science Publisher, 97–121. ISBN 978-1-61324-419-7
- Facione, P. (2015). *Critical thinking: What it is and why it counts*. Insight Assessment
- Fajarini, I. (2018). *Berpikir kritis dan kreatif pada pembelajaran bahasa indonesia*. *Prosiding Seminar Nasional Pendidikan Bahasa dan Sastra Indonesia I Unimed-2018*. <https://digilib.unimed.ac.id>
- Fakhomah, D. N., & Utami, M. S. (2019). Pre-service English teacher perception about higher order thinking skills (hots) in the 21st century learning. *International Journal of Indonesian Education and Teaching*, 3(1). <https://doi.org/10.24071/ijiet.2019.030104>
- Franco, A. R., Costa, P. S., Butler, H. A., & Almeida, L. S. (2017). Assessment of undergraduates' real-world outcomes of critical thinking in everyday situations. *Psychological Reports*, 120(4), 707–720. <https://doi.org/10.1177/0033294117701906>
- Gashan, A. K. (2015). Exploring saudi pre-service teachers' knowledge of critical thinking skills and their teaching perceptions. *International Journal of Education and Literacy Studies*, 3(1). <https://doi.org/10.7575/aiac.ijels.v.3n.1p.26>
- Gay, L. R., E. Mills, G., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications*. Pearson Education, Inc
- Gönen, S. I. K. (2019). A qualitative study on a situated experience of technology integration: Reflections from pre-service teachers and students. *Computer Assisted Language Learning*, 32(3), 163-189. <https://doi.org/10.1080/09588221.2018.1552974>
- Halpern, D. F. (2014). *Thought and knowledge: An introduction to critical thinking* (5th ed.). Psychology Press
- Hughes, N., & Davies, M. (2014). *Doing a successful research project: using qualitative or quantitative methods*. Macmillan International Higher Education
- Ishak, M., & Abu, A. (2018). Exploring TPACK domains of Malaysian non-option ESL teachers in an online flipped learning course through Blendspace. *EduLite: Journal of English Education, Literature and Culture*, 3(2), 110-124. <http://dx.doi.org/10.30659/e.3.2.110-124>
- Kale, U. (2017). *Technology valued? Observation and review activities to enhance future teachers" utility value toward technology*

- integration. *Computers & Education*, 117, 160-174.  
<https://doi.org/10.1016/j.compedu.2017.10.007>
- Koehler, M. J., Mishra, P., Hershey, K., & Peruski, L. (2004). With a little help from your students: A new model for faculty development and online course design. *Journal of Technology and Teacher Education*, 12(1), 25-55. <https://www.learntechlib.org/primary/p/14636/>
- Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054.
- Moeti, B., Killion Mgawi, R., & Smita Moalosi, W. T. (2016). Critical thinking among post-graduate diploma in education students in higher education: reality or fuss. *Journal of Education and Learning*, 6(2), 13. <https://doi.org/10.5539/jel.v6n2p13>
- Moon, J. (2007). *Critical thinking: An exploration of theory and practice*. Routledge
- Omidvar, R., & Sukumar, B. (2013). The effects of global education in the English language conversation classroom. *English Language Teaching*, 6(7), 151–157.  
<https://doi.org/10.5539/elt.v6n7p151>
- Oradee, T. (2013). Developing speaking skills using three communicative activities (discussion, problem-solving, and role-playing). *International Journal of Social Science and Humanity*, 2(6), 533–535.  
<https://doi.org/10.7763/ijssh.2012.v2.164>
- Papak, P., Vujičić, L., & Željkalvković, Z. 2017. Project activities and encouraging critical thinking: exploring teachers' attitudes. *ceps Journal*, 7(3), pp: 27-46.  
<https://doi.org/10.25656/01:14905>
- Pikkert, J. J. J., & Foster, L. (1996). Critical thinking skills among third year Indonesian English students. *RELC Journal*, 27(2), 56–64.  
<https://doi.org/10.1177/003368829602700204>
- Rasyid, A. M. (2001). *Teaching English as a Foreign Language: Giving More Insights Into its Perennial Factors*. Paper presentation at English Seminar. Muhammadiyah University Parepare.
- Saleh, S. E. (2019). Critical thinking as a 21 st century skill: Conceptions, implementation and challenges in the efl classroom. *European Journal of Foreign Language Teaching*, 4(1), 1–16. <https://doi.org/10.5281/zenodo.2542838>
- Schmid, M., Brianza, E., & Petko, D. (2020). Self-reported technological pedagogical content knowledge (TPACK) of pre-service teachers in relation to digital technology use in lesson

plans. *Computers in Human Behavior*, 115, 106586.

<https://dx.doi.org/10.1016/j.chb.2020.106586>

Scriven, M., & Paul, R. (1996). Defining critical thinking: A draft statement for the National Council for Excellence in Critical Thinking. Retrieved from <http://www.criticalthinking.org/University/univlibrary/library.nclk>.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14, <https://doi.org/10.3102/0013189X015002004>

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>

Smith, T. E., Rama, P. S., & Helms, J. R. (2018). Teaching critical thinking in a GE class: A flipped model. *Thinking Skills and Creativity*, 28, 73-83. <https://doi.org/10.1016/j.tsc.2018.02.010>

Tseng, J. (2018). Exploring TPACK-SLA interface: Insights from the computer-enhanced classroom. *Computer Assisted Language Learning*, 31(4), 390–412. <https://doi.org/10.1080/09588221.2017.1412324>

Tuzlukova, V., Al Busaidi, S., Burns, S., & Bugon, G. (2018). Exploring teachers' perceptions of 21st century skills in teaching and learning in english language classrooms in oman's higher education institutions. *Journal of Teaching English for Specific and Academic Purposes*, 6(1), 191. <https://doi.org/10.22190/jtesap1801191t>

Voogt, J., & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21 st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies*, 44(3), 299–321. <https://doi.org/10.1080/00220272.2012.668938>

Wilson, K. (2016). Critical reading, critical thinking: Delicate scaffolding in English for Academic Purposes (EAP). *Thinking Skills and Creativity*, 22, 256–265. <https://doi.org/10.1016/j.tsc.2016.10.002>

Zhang, H., Yuan, R., & He, X. (2020). Investigating university EFL teachers' perceptions of critical thinking and its teaching: Voices from China. *Asia-Pacific Education Researcher*, 29(5), 483–493. <https://doi.org/10.1007/s40299-020-00500-6>

ŽivkoviL, S. (2016). A model of critical thinking as an important attribute for success in the 21st century. *Procedia - Social and Behavioral Sciences*, 232, 102–108.

<https://doi.org/10.1016/j.sbspro.2016.10.034>