

EFL TEACHERS' COGNITION OF EMERGENCY REMOTE INSTRUCTIONS: CRITICAL INCIDENT ANALYSIS

*Paulus Widiatmoko*¹

¹Universitas Kristen Duta Wacana Yogyakarta

Email: widiatmoko@staff.ukdw.ac.id

Abstract

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*English Teachers,
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Education during Covid19 pandemic has been more complicated due to the emergency situation along with all the consequences of online instruction policy. This research investigated how EFL teachers made sense of online instruction during Covid19 pandemic to facilitate English language skill development. Taking a college English matriculation program as the context of the study, nine excerpts of teacher term reflections were analysed using critical incident analysis. Five cluster of incidents were identified essential to represent the landscape of the EFL teachers' cognition of distance instruction. They were teachers' adjustments and renewal of pedagogic practice, representation of belief system, enactment of technological pedagogical content knowledge (TPCK), involvement of their emotion, and acceptance of the abrupt changes. These themes associated with readiness for online instruction as it was not only related to physical-technical issues, but also concerned with more intricate realm of technology integration for online learning.

Kata Kunci:
*Guru Bahasa
Inggris,
Pembelajaran
Jarak Jauh,
Kognisi Guru*

Abstrak

Pendidikan pada masa pandemi Covid19 merupakan pembelajaran yang lebih kompleks oleh karena situasi darurat beserta konsekwensi kebijakan pembelajaran daring. Penelitian ini mengkaji bagaimana pengajar Bahasa Inggris memaknai pembelajaran daring selama pandemi Covid19. Program matrikulasi Bahasa Inggris bagi mahasiswa dipilih sebagai subjek penelitian dimana sembilan tulisan refleksi pengajar dianalisa menggunakan *critical incident analysis*. Lima kelompok *incidents* ditemukan sebagai representasi kognisi para guru terhadap pembelajaran jarak jauh. Mereka adalah penyesuaian para guru terhadap pembaruan praktek pengajaran, perwujudan *belief system*, penerapan pengetahuan teknologi pedagogi beserta konten, keterlibatan emosi, dan penerimaan terhadap perubahan yang tiba-tiba. Tema-tema ini berhubungan dengan kesiapan pelaksanaan pembelajaran jarak jauh yang tidak hanya menyangkut hal-

hal bersifat fisik dan teknis, akan tetapi juga aspek-aspek lain yang lebih kompleks berkenaan dengan penerapan teknologi bagi pembelajaran jarak jauh.

INTRODUCTION

Digital technology has been indispensable part of human life. Products of Information and Communication Technology (ICT) are meant to make life easier, more efficient, and more comfortable. In education sector, seamless learning combining various platforms, diminishing time and space constraints, is becoming more accessible due to the advancement of the technology.

The pivotal role of ICT was evidently observed as the coronavirus outbreak struck. Teachers had to abruptly shift instruction online which is more than changing methods material delivery. Some experts called the instruction during the pandemic as an emergency remote teaching (ERT) (Akban et al., 2021; Balbay & Erkan, 2021), or a response to crisis situation (Adedoyin & Soykan, 2020), or abrupt migration to online instruction (Hodges et al., 2020). Aside from its technical dimension, elaboration of technology into instruction deals with other related aspects, such as pedagogy, content (Koehler et al., 2013a; Schmidt et al., 2009), and belief systems of its users (Ertmer, 2005; Mama & Hennessy, 2013).

How ICT could be integrated into instruction has been researched. Knowledge and competence of its use have been theorized, among others in Technological Pedagogical Knowledge (TPACK) and Substitution Augmentation Modification and Redefinition (SAMR). TPACK proposed by Koehler et al. (2013a) conceptualizes teachers' knowledge and abilities to integrate technology into instructions. Its independent components of technological-pedagogical-content knowledge and their combination making up Technological Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), and Technological Pedagogical Knowledge (TPK) have been considered useful for teachers to integrate technology into instruction (Bostancıoğlu & Handley, 2018; Cheng, 2017; Hsu, 2017; Mishra, 2019). Dealing with the levels of technology adoption, four roles of technology use for pedagogy, namely substitution,

Augmentation, Modification, and Redefinition is proposed by Puentedura (2013). This model offers “practicality and suitability for teachers to advance the incorporation of evolving technologies into their everyday instructions” (Hilton, 2016, p. 68). Despite the extensive studies on teachers’ pedagogically and technically savvy, little attention has been paid to what teachers believe, know, and think of ICT use for online instructions, particularly in emergency remote teaching.

What teachers do in their instruction has been researched and found out to be correlated with and influenced by their cognitive factors, including their thinking and knowledge (Shulman, 1987), beliefs (Pajares, 1992), pedagogic principles (Breen, 2001), conceptions of teaching (Pratt, 1992), maxims (Richards, 1996), pedagogical knowledge (Gatbonton, 1999), personal practical knowledge (Golombek, 1998), and cognition (Borg, 2003, 2005). Teacher cognition, along with its various formulations, denotes a wide-ranging constructs that teaching goes beyond observable behavior as belief system, knowledge, and its related constructs also interfere (Birello, 2012) and, in relevance with this study, the topic predominantly addresses how an innovation is being interpreted and implemented (Borg, 2015) in the adversity of pandemic.

Studies on technology integration in Indonesian ELT have covered various prominent topics. Teacher positive attitudes towards ICT use have been observed in several studies (Al-Munawwarah, 2014; Aminullah et al., 2019; Basri & Paramma, 2019; Mukti et al., 2020; Muslem et al., 2018; Rodliyah, 2018; Safitry et al., 2015). However, various challenges and obstacles were found out, such as provision of facilities and equipment (Aminullah et al., 2019; Rodliyah, 2018), needs for professional training (Muslem et al., 2018; Rodliyah, 2018; Safitry et al., 2015), time limitation and internet connection (Muslem et al., 2018), and lack of attention of teacher beliefs and attitude aspects (Safitry et al., 2015).

Limited empirical evidence, however, has been found on how Indonesian EFL teachers make sense of online instruction representing their cognition. The urgency of conducting online class during Coronavirus outbreak amplifies the urgency of technology integration which demands overview of its situational,

technical and non-technical variables. This study, therefore, attempted to investigate how EFL teachers make sense of online instruction during Covid 19 outbreak. The findings expectedly offer more comprehensive discussion of distance instruction from the perspective of what they know, believe, and do.

METHOD

This study adopted a qualitative research design as it allowed researcher to disclose the often unobserved but no less complexities of social structures and provide opportunities for knowing human and social life more comprehensively (Creswell & Creswell, 2013; Halquist & Musanti, 2010). Naturally, using this paradigm, inductive procedures are taken in the design, and meanings and insights in a given situation are explored (Levitt et al., 2017). Inclining the data gathering and analysis under Critical Discourse Analysis (CDA), this study situates interrogation of texts as a social practice (Richardson, 2007). It is further asserted that discourse is approached as “a circular process in which social practices influence texts, shaping the context and mode in which they are produced, and in turn texts help influence society via shaping viewpoints of those who read or otherwise consume them” (Richardson, 2007, p. 37)

The subjects of this study were nine English teachers of a Language Training Center at a private university in Yogyakarta, Indonesia. Comprising one male and eight female teachers having experience from two to fifteen years, the participants taught a general English matriculation program as prerequisite course of English for Specific Purposes (ESP). As a compulsory-non credited subject, this program emphasizes integrated skill development with focus on speaking and writing. The students are mainly freshmen from the departments of Medical, Business, Architecture, Product Design, IT, and Biotechnology. It has been more than twenty years for the university to administer this language policy and as part of the distance instruction became mandatory during Covid-19 outbreak, technical support and facilities have been provided for the program to sustain.

To answer the research question of this study, a critical Incident Technique (CIT) was conducted. Butterfield et al., (2005) claim the technique as a widely

used qualitative research method and recognized as an effective exploratory and investigative tool. Tripp (1994) calls it as an analysis created by the researcher, instead of happening by itself. It is further exemplified that incidents happen, but critical incidents are produced by the way we look at the situation. Concerning the incidents being analyzed, Martin (1996) in (Halquist & Musanti, 2010) suggest researchers to identify everyday events that stand out, whereas (Brookfield, 2017) describe it as vivid happenings that are considered significant or memorable. Moreover, Şenel (2021) argues that critical incidents could deal with teacher instant decisions making when encountering some definite, unexpected and unpredicted circumstances.

The steps of Critical Incident Analysis in this study covered firstly identification of general patterns and themes in the teacher reflection and discussion in relation with their beliefs of distance instruction. Secondly, the data were analyzed to categorize the types of teachers' knowledge and representation of teacher cognition aspects. Lastly, critical incidents in the essay were identified and amplified to portray teachers' cognition towards distance instruction. Selection of incidents could follow these guidelines: 1. events that held some degree of conflict; 2. Expressions or description that surprised the researcher that could trigger deeper reflection; 3. Representing some of the patterns of teachers' interactions, as shown by thematic and preliminary analysis of the data (Musanti, 2005). Considering topic relevance of this study, the incident analysis of this study covered three main categories of data: the antecedent of the information (what led to it), the event or incident itself, and the outcome of the incident (Butterfield et al., 2005)

FINDINGS AND DISCUSSION

This study revealed five key findings on how the subjects make sense of remote instruction during Coronavirus Outbreak. In the presentation of the findings samples of critical incidents identified in the teachers' reflection were underlined and their categories were identified as the antecedent of the

information, the event or incident itself, or the outcome of the incident (Butterfield et al., 2005).

1. The policy to conduct online instruction brought about changes entailing adjustment and renewal of their pedagogical practice.

Table 1: Key Finding 1 and Transcripts

Key Finding	Transcripts
The policy to conduct online instruction brought about changes entailing adjustment and renewal of their pedagogical practice.	<p>[Teacher 6] <i>Then, the Corona issue came and <u>changed everything</u> [antecedent-situation observance]. We have <u>experienced different ways of teaching</u> [event-Pedagogical Knowledge/PK] <u>since then.</u></i></p> <p>[Teacher 1] <i>This mid reflection is going to be a <u>different one since it is written under challenging circumstance</u> [antecedent- situation observance] <u>both for the teachers and the students.</u> Due to the presence of <u>the fight against the Corona virus out there</u> [event-new challenges], <u>we need to adjust one thing or two</u> [event-initiation of change], <u>including in adjusting our teaching-learning style</u> [event-reflection of pedagogical knowledge/PK]</i></p> <p>[Teacher 4] <i>During this <u>emergency kind of situation</u> [antecedents-situation observance], <u>where the classes performed virtually, I have to say that my class is far from ideal</u> [antecedents-situation observance]. <u>I try to have a class discussion</u> [event-routine classroom activities] <u>but not all of my students are able to be reached</u> [outcome-problem identification]. <u>Some of them ask me questions related to the task but failed to meet the deadline</u> [outcome-problem identification]. <u>I try to give them more times by prolong the deadline</u> [outcome-policy adjustment] <u>up to Sunday, March 22nd, 2020 but still some didn't submit</u> [outcome-result observance] <u>the task.</u></i></p>

As can be inferred from Table 1, teacher 1, 4, and 6 accentuate the new situation emphasizing discourse of change, either explicitly stated such as “...Corona issue came and changed everything”, “... is going to be a different one since it is written under challenging circumstance...”, “... experienced different ways of teaching”, or implicitly such as “..... During this emergency kind of situation”, *Due to the presence of the fight against the Corona virus.* Moreover, observance to these changing situations, therefore, initiates teachers’ adjustments or course of actions on the subjects’ previously academic routines “my class is far from ideal”, “I try to have a class discussion”, “.... need to adjust one thing or two”, “...adjusting our teaching-learning style”, resulting in pedagogical adjustment “....more times by prolong the deadline”, or their

observance of gaps or problems “... *not all of my students are able to be reached*”, “...*but failed to meet the deadline*”, “...*but still some didn’t submit*”.

Teachers’ pedagogical knowledge and decision making, including renewal of class policy, were parts of teachers’ efforts to keep the class running. These adjustments could be partly addressed by the nature of online learning which is characterized differently from face-to-face instruction. Online learning scheme the pressure is heavier as faculty members are required to be content experts, pedagogical facilitators, and technological personnel (Adedoyin & Soykan, 2020; Gacs et al., 2020). Accordingly, teaching online forces teachers to be more facilitative with the student participants (Balbay & Erkan, 2021; Carrillo & Flores, 2020). In a more elaborative, Tan (2013) summarize four aspects teachers need to shift from conventional to online pedagogy, namely time and place limits, teaching content, personalization, and learning style.

2. Representation of beliefs towards online instruction and learning was admitted by the teachers.

Table 2: Key Finding 2 and Transcripts

Key Finding	Transcripts
Representation of beliefs towards online instruction and learning was admitted by the teachers.	<p>[Teacher 1] <i>it cannot be denied that <u>the presence of technology</u> [antecedent-situation observance] <u>has made our life easier and simpler</u> [event-technology beliefs]. <i>In our daily life, it has <u>helped us a lot</u> [event-technology beliefs] <u>in running our life. Now, we don’t have to leave our home for shopping, paying bills, eating or even studying and working</u> [outcome-positive impacts of technology].</i></i></p> <p>[Teacher 9] <i>People believe <u>online learning has a few preferences</u> [antecedent-situation observance] <u>that we ought to proceed to do that. Firstly, regarding the current situation about the Coronavirus (COVID-19) spread</u> [antecedent-situation observance], <u>online learning is the finest alternative</u> [Event-Technological Pedagogical Knowledge/TPK] <u>to keep the students study without any physical interaction</u> [outcome-pedagogical adjustment] <u>with other people.</u></i></p> <p>[Teacher 9] <i>Another advantage is that <u>online learning educates students to be self-discipline</u> [event-technology beliefs]. <i>As nobody monitors them while they are studying, <u>they need to monitor themselves</u> [outcome-consequence of technology use].</i></i></p>

The above parts of the reflective essay firstly depict the subjects' beliefs on technology in general "*the presence of technology, has made our life easier and simpler...*", "*..., it has helped us a lot, we don't have to leave our home for shopping, paying bills, eating or even studying and working....*", "*...has created a breakthrough in our life*". Moreover, subjects' beliefs on online learning are uttered "*... online learning has a few preferences*", "*regarding the current situation about the Coronavirus (COVID-19) spread... online learning is the finest alternative to keep the students' study without any physical interaction*". Aside from their proposition of online learning, its impacts and their consequence are stated in the essay "*the second benefit concerns with flexibility, particularly place to study*", "*... can study at home or other preferable places...*", "*.... they only need to focus on the subject ...how they can accomplish all the assignments*"

Theory of Reasoned Action (TRA) formulates beliefs as how people subjectively judge themselves and their environment, in which further developed into Theory of Planned Behavior (TPB) (Ajzen, 1991, p. 19). Teacher beliefs are considered to be effective in predicting acceptance and use of many different technologies (Davis, 1989; Venkatesh et al., 2003, 2016). Studies revealed relationship between teachers' pedagogical beliefs and technology integration (Hsu, 2013; Kim et al., 2013; Teo, 2011). Moreover, research also suggested that in the area of teaching and learning teachers' beliefs work like a screen filtering their knowledge that guide them to decide behavioral intention (Davis, 1989; Venkatesh et al., 2003) in relation with contextual situation (Cross, 2010; Li, 2020). However, teacher beliefs could contradict one another, resulting in inconsistency of relation between them and classroom practice (Basturkmen, 2012). On discrepancy between beliefs and practice (Crookes, 2015), other contextual variables such as the ones related to context might come to play (Basturkmen, 2012; Feryok, 2010; Kubanyiova & Feryok, 2015; Li, 2020).

3. Teachers’ conceptions of Technological Knowledge (TK), pedagogical knowledge (PK), technological pedagogical knowledge (TPK), and technological pedagogical content knowledge (TPCK) were revealed.

Table 3: Key Finding 3 and Transcripts

Key Finding	Transcripts
Teachers’ conceptions of Technological Knowledge (TK), pedagogical knowledge (PK), technological pedagogical knowledge (TPK), and technological pedagogical content knowledge (TPCK) were revealed.	[Teacher 1] <i>In order to make things simpler for e-learning class [antecedent-online teaching strategy], I use WAG and e-class [event-TK]. It ran well [outcome-teacher evaluation] for my level 3 students. They got the material and instructions on e-class [event-TPCK] and later on accessed WAG to discuss unclear things about the assignments and homework [event-TPCK].</i>
	[Teacher 5] <i>Our students and of course us, are not familiar with distance learning [antecedent-situation observance]. I tried to simplify the materials [Event- TPCK] as I imagined that we were not going to be there to assist students [Event-TPCK] and we needed to understand that.</i>
	[Teacher 9] <i>Unlike traditional class [antecedent-situation observance] in which students can interact directly with the teacher and among friends, online learning is somewhat challenging [event-TPK] in a way that it requires deep understanding [event-TPK] to the materials they learn</i>

Representation of the subjects’ combined knowledge of technology, pedagogy, and content are observed as the main events or incidents in the above scripts. Online instruction is more than technology enactment as could be inferred from “to make things simpler for e-learning class, I use WAG and e-class ...”, “the material and instructions on e-class... later on accessed WAG to discuss unclear things.”. Moreover, pedagogic adjustments are observably rooted from the subjects’ beliefs responding to problems faced during classroom conducts as in “unlike traditional class, online learning is somewhat challenging”, “students did not really understand what to do though I have shared the material and clear instructions ...”, “online learning is somewhat challenging ... that it requires deep understanding of the material...”

In relation to the above findings, TPACK elaborates teachers’ knowledge of combining the synthesis of technology, pedagogy, content (Koehler et al., 2013; Mishra, 2019; Schmidt et al., 2009). Taking technological knowledge as the

central axis to be implemented into these three aspects, this model appears to suggest the need for full-coverage aspects of technology to use, not only dealing sophistication of tools and platform, but more importantly with its pedagogy and content elements and their combinations (Koehler et al., 2013; Schmidt et al., 2009). Teachers appeared to make use digital technology that support the students and probably the teachers themselves, the one they were familiar with. Therefore, teachers need more support to create more pedagogical changes in ICT use for instruction (Koh et al., 2015).

4. Teachers’ emotional geography was admittedly influenced by limitations and challenges of online instructions.

Table 4: Key Finding 4 and Transcripts

Key Finding	Transcripts
Teachers’ emotional geography was admittedly influenced by limitations and challenges of online instructions.	[Teacher 1] <i>At first, there were 5 students who joined and then I gone. <u>In the end, only I who submit the assignments and homework</u> [antecedent-situation observance]. It <u>breaks my heart</u> [event-negative feeling] since I feel that I have <u>failed in guiding and teaching them</u> [event-negative feeling].</i>
	[Teacher 5] <i>Deep inside my heart, I said, <u>I did my part and it was enough</u> [antecedent-teacher positive affirmation]. I don’t know <u>into what extent education should go</u> [event-feeling doubt]. I just feel that this <u>learning from home period has forced us to pamper our students even more</u> [outcome- discontent feeling].</i>
	[Teacher 3] <i>I must say that <u>I am very lucky</u> [event-positive feeling] to have always set WAG for each class I teach. It was very <u>easy</u> [event-positive feeling] for me to arrange online learning because of those WAGs.</i>
	[subject #9] <i>The advantages and disadvantages of online learning do exist, but <u>it depends on us to take positive advantages as many as we can</u> [event-positive attitude and optimism].</i>
	[subject#1] <i>However, as teachers, we should <u>not see this as an obstacle</u> [event-positive attitude] that will burden our life. We should see it as an <u>opportunity</u> [event-positive attitude] to explore another field that might be still <u>unknown for some of us; technology</u> [event-positive attitude].</i>

This critical incident analysis found that parts of the emotional factors emerged positively as “*I am very lucky*”, “*It was very easy*”, “*I did my part and it was enough*”. Moreover, expressions of discontentment due to unexpected situation were also admitted “*...only I who submit the assignments and*

homework...”, “... *It breaks my heart...*”, ...*I have failed in guiding and teaching them*”, “...*into what extent education should go*”, “*has forced us to pamper our students even more*”. Interestingly, despite the appeared challenges, optimistic vibes were voiced in the reflection as “... *depends on us to take positive advantages as many as we can*”, “...*we should not see this as an obstacle*”, “*we should see it as an opportunity...to explore another field that might be still unknown*“. Even though these acknowledgments of subjects’ feeling appeared conclusive, weak evidence was identified as how significant their contribution to affect the conduct of online instruction. Most of these emotion states do not appear to grip the essential elements of technology integration, nonetheless on inconsequential impacts of its use.

How emotions play role in the applications of technology to personal, professional and teaching activities are not apparent. While, several studies address the emotional representation of ICT use, the landscape of teachers’ emotions with technology remains vague (Azzaro & Martínez Agudo, 2018; Kay & Loverock, 2008). Accordingly, in Taiwan context, (Wang, 2014) conducted a study by interviewing and distributing questionnaire to 36 EFL teachers found out inconsistency between participants’ positive emotion and attitudes with their technology use, which are limited to Power Point and You Tube. Other scholars, however, highlight the importance of emotions and emotional awareness in the use of ICT for teaching (de Lera et al., 2009; Wosnitza & Volet, 2005). Moreover, many teachers feel weary to integrate technology due to various factors including technical problems and pedagogical challenges (Celik & Yesilyurt, 2013; Wang, 2014).

5. Teachers demonstrated acceptance to online instruction, even with coping strategies and innovations to deal with limitations and complexities.

Table 5: Key Finding 5 and Transcripts

Key Finding	Transcripts
Teachers demonstrated acceptance to online instruction, even with coping strategies and innovations to deal with limitations and complexities.	[Teacher 1] <i>as teachers we need to realize that dealing with <u>the use of technology for e-learning is not an easy thing for everyone</u> [antecedent-situation observance]; <u>including for our students. We need to give everyone time to adjust, to process and to understand how it works</u> [event-coping strategy]. <u>The students also need to have courage in exploring it</u> [event-coping strategy].</i>
	[Teacher 9] <i>we <u>have to deal with the advantages and disadvantages</u> [antecedent-acceptance to complexity] of online learning method due to the current situation. Even if this brings the students too many disadvantages, <u>they need to keep going</u> [event-coping strategy] because this is <u>the best option</u> [event-teacher belief] they have for now.</i>
	[Teacher 2] <i>This semester is also <u>challenging</u> [antecedent-situation observance] because of the Coronavirus pandemic, which <u>forces me to use the e-class</u> [event-pedagogic practice] to teach the students. In my opinion, <u>this is far less than ideal</u> [event-teacher observation] because <u>the students are used to being “fed”</u> [event-teacher observation], <u>which means that they need the teachers to be proactive to make them learn</u> [event-coping strategies].</i>
	[Teacher 6] <i>Embracing the technology, we have <u>no choice to conduct the only possible way</u> [antecedent-acceptance] to teach -daring teaching and learning. <u>It’s very interesting</u> [event-positive attitude] since I’m always into technology. I <u>enjoy</u> [event-positive attitude] this kind of teaching (but not the situation during the Corona issue)</i>

The above key findings highlight some thought-provoking points. First, both advantages and disadvantages were embraced “...the use of technology for e-learning is not an easy thing for everyone...”, “...this is far less than ideal...”, “...we have no choice to conduct the only possible way...”, “...we have to deal with the advantages and disadvantages...”, “...even if this brings the students too many disadvantages, they need to keep going...” ...because this is the best option” Secondly, complexities were far more multifaceted than the technology level of difficulty as in “... the use of E-learning platform will really test our responsibilities in becoming responsible teachers-learners...”, “meanwhile, in online learning, they are required to be independent, this is what I feel they lack”, “I enjoy this kind of teaching (but not ...the Corona issue)”. Lastly, compatibility construct of IDT theory did not appear to be relevant with these findings “...to give everyone time to adjust”, “...to process and to understand how it works, also

need to have courage in exploring it...”, “...to be brave in exploring it with full spirit...”, “they need the teachers to be proactive to make them learn.”

Theoretically, teachers’ use of technology could be framed into various frameworks. Innovation diffusion theory (IDT) qualifies the progression by which users adapt technological products (Rogers, 1983). The construct of Compatibility on this model (the degree of consistency with the current values, previous experiences, and needs of potential users) appear to indicate the least relevance with the findings of this study. Another framework, Technology Acceptance Model (TAM) was developed by emphasizing five components of users’ acceptance towards technology, namely Perceived Ease of Use-PEU, Perceived Usefulness-PU, Attitude towards Computer Use-ATU, and Behavioral Intention to Use-BI (Davis, 1989). It was then subsequently improved by adding subjective norms into the construct and called TAM2 (Venkatesh & Davis, 2000) and further revised into Unified Technology Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2002) with 4 major components of performance expectancy, effort expectancy, social influence, and facilitating condition to influence behavioral intention and use behavior. These models of ICT integration portray the intricate and complex interrelating variables of technology use, ranging from the users’ belief system, social-contextual factors, competence, and facilitating-inhibiting situations.

The above five key findings are correlated with major components of faculty members’ readiness (Joosten & Cusatis, 2020) and institution preparedness (Alqabbani et al., 2021) to conduct online instruction. Hung (2016), conducting confirmatory and explanatory factor analysis, claimed that institutional supports, teacher self-directed learning and self-efficacy affected significantly towards their E-readiness. Another study revealed that E-readiness is strongly correlated with perceived effectiveness, positive attitude, and satisfaction towards ICT during the emergency remote teaching (Alqabbani et al., 2021). To be more specific, the concept of technology integration readiness caters aspects of psychological, sociological, environmental, human resources, financial, technological, equipment, and content (Al-Furaih & Al-Awidi, 2020; Dray et al.,

2011; Martin et al., 2019; Parasuraman & Colby, 2015). Therefore, this study recommends the necessity of preparing readiness and monitoring progress of online learning policy as well as preparing individual factors' readiness.

Upon assessment of readiness, policy of administering and monitoring online learning could be designed along with its mechanism of evaluation and development. Therefore, implementation of online learning, despite being forced by the urgency of unpredictable situation, require several phases of assessment, preparation, administration, evaluation, and development. Flexibility of combining or adjusting the procedures would be possible, considering efficiency and insistence of its enforcement. Teacher and institution resilience to endure challenging situations would also be crucially needed to keep the program going.

CONCLUSION

As this study attempted to portray the landscape of teachers' use of digital technology in EFL context, five key findings on how teacher make sense of online instruction during Covid19 pandemic have been revealed through critical incident analysis. First, the use of digital technology in online instruction during Coronavirus outbreak brought about changes that required renewal or adjustment of their pedagogical practice. Moreover, increasing importance of digital technology due to its dependence for online instruction had been perceived positively and negatively. Shifting representation of teachers' pedagogical knowledge (PK) to technological pedagogical knowledge (TPK) and technological pedagogical content knowledge (TPCK) was observed. Meanwhile teachers' emotional expressions were admittedly influenced by various factors, including limitations and challenges of online instructions as well as their optimism and positive attitudes. Finally, having no other options than conducting online instruction left teachers to demonstrate acceptance with their coping strategies and innovations to deal with limitations and complexity of the lesson conduct.

On top of all, comprehensive readiness for online learning is unavoidably needed and this may take some time to prepare. However, nurturing habits and

honing capacity to elaborate multi-faceted aspects of instructional technology integration in daily basis are the least things teachers could do. In more comprehensive initiatives, these could be further supported by teacher reflective practice, collective learning, and continuous professional development programs as part of the e-readiness policy.

REFERENCES

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 1–13. <https://doi.org/10.1080/10494820.2020.1813180>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akbana, Y. E., Rathert, S., & Ağçam, R. (2021). Emergency remote education in foreign and second language teaching. *Turkish Journal of Education*, 97–124. <https://doi.org/10.19128/turje.865344>
- Al-Furaih, S. A. A., & Al-Awidi, H. M. (2020). Teachers' Change Readiness for the Adoption of Smartphone Technology: Personal Concerns and Technological Competency. *Technology, Knowledge and Learning*, 25(2), 409–432. <https://doi.org/10.1007/s10758-018-9396-6>
- Al-Munawwarah, S. F. (2014). *Teachers' Perceptions on the Use of ICT in Indonesian EFL Learning Context*. 3(1), 11.
- Alqabbani, S., Almuwais, A., Benajiba, N., & Almoayad, F. (2021). Readiness towards emergency shifting to remote learning during COVID-19 pandemic among university instructors. *E-Learning and Digital Media*, 18(5), 460–479. <https://doi.org/10.1177/2042753020981651>
- Aminullah, A., Loeneto, B. A., & Vianty, M. (2019). Teachers' Attitudes and Problems of Using ICT in Teaching EFL. *English Review: Journal of English Education*, 8(1), 147. <https://doi.org/10.25134/erjee.v8i1.2324>
- Azzaro, G., & Martínez Agudo, J. de D. (2018). The Emotions Involved in the Integration of ICT into L2 Teaching: Emotional Challenges Faced by L2 Teachers and Implications for Teacher Education. In J. de D. Martínez Agudo (Ed.), *Emotions in Second Language Teaching* (pp. 183–203). Springer International Publishing. https://doi.org/10.1007/978-3-319-75438-3_11

- Balbay, S., & Erkan, G. (2021). Online Language Learning in Times of Crisis: Hindrance or Opportunity? *Journal of Educational Technology and Online Learning*. <https://doi.org/10.31681/jetol.936827>
- Basri, M., & Paramma, M. A. (2019). EFL Students' Perspective on the Usefulness of ICT based Learning in Indonesian Higher Education. *ELT Worldwide: Journal of English Language Teaching*, 6(2), 105. <https://doi.org/10.26858/eltww.v6i2.10515>
- Basturkmen, H. (2012). Review of research into the correspondence between language teachers' stated beliefs and practices. *System*, 40(2), 282–295. <https://doi.org/10.1016/j.system.2012.05.001>
- Birello, M. (2012). Interview: Teacher Cognition and Language Teacher Education: beliefs and practice. A conversation with Simon Borg. *Bellaterra Journal of Teaching & Learning Language & Literature*, 5(2), 88. <https://doi.org/10.5565/rev/jtl3.464>
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(2), 81–109. <https://doi.org/10.1017/S0261444803001903>
- Borg, S. (2005). Teacher Cognition in Language Teaching. In K. Johnson (Ed.), *Expertise in Second Language Learning and Teaching* (pp. 190–209). Palgrave Macmillan UK. https://doi.org/10.1057/9780230523470_10
- Borg, S. (2015). *Justifying Language Teacher Cognition Research*. <http://simon-borg.co.uk/justifying-language-teacher-cognition-research/>
- Bostancıoğlu, A., & Handley, Z. (2018). Developing and validating a questionnaire for evaluating the EFL 'Total PACKage': Technological Pedagogical Content Knowledge (TPACK) for English as a Foreign Language (EFL). *Computer Assisted Language Learning*, 31(5–6), 572–598. <https://doi.org/10.1080/09588221.2017.1422524>
- Breen, M. (2001). Making sense of language teaching: Teachers' principles and classroom practices. *Applied Linguistics*, 22(4), 470–501. <https://doi.org/10.1093/applin/22.4.470>
- Brookfield, S. (2017). *Becoming a critically reflective teacher* (Second edition). Jossey-Bass.
- Butterfield, L. D., Borgen, W. A., Amundson, N. E., & Maglio, A.-S. T. (2005). Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative Research*, 5(4), 475–497. <https://doi.org/10.1177/1468794105056924>
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European*

Journal of Teacher Education, 43(4), 466–487.
<https://doi.org/10.1080/02619768.2020.1821184>

- Celik, V., & Yesilyurt, E. (2013). Attitudes to technology, perceived computer self-efficacy and computer anxiety as predictors of computer supported education. *Computers & Education*, 60(1), 148–158. <https://doi.org/10.1016/j.compedu.2012.06.008>
- Cheng, K.-H. (2017). A survey of native language teachers' technological pedagogical and content knowledge (TPACK) in Taiwan. *Computer Assisted Language Learning*, 30(7), 692–708. <https://doi.org/10.1080/09588221.2017.1349805>
- Creswell, J. W., & Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed). SAGE Publications.
- Crookes, G. V. (2015). Redrawing the Boundaries on Theory, Research, and Practice Concerning Language Teachers' Philosophies and Language Teacher Cognition: Toward a Critical Perspective: The Modern Language Journal. *The Modern Language Journal*, 99(3), 485–499. <https://doi.org/10.1111/modl.12237>
- Cross, R. (2010). Language Teaching as Sociocultural Activity: Rethinking Language Teacher Practice. *The Modern Language Journal*, 94(3), 434–452. <https://doi.org/10.1111/j.1540-4781.2010.01058.x>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- de Lera, E., Fernández, C., & Almirall, M. (2009). *Emotions: The forgotten key success in online learning*. 9.
- Dray, B. J., Lowenthal, P. R., Miskiewicz, M. J., Ruiz-Primo, M. A., & Marczyński, K. (2011). Developing an instrument to assess student readiness for online learning: A validation study. *Distance Education*, 32(1), 29–47. <https://doi.org/10.1080/01587919.2011.565496>
- Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational Technology Research and Development*, 53(4), 25–39. <https://doi.org/10.1007/BF02504683>
- Feryok, A. (2010). Language teacher cognitions: Complex dynamic systems? *System*, 38(2), 272–279. <https://doi.org/10.1016/j.system.2010.02.001>
- Gacs, A., Goertler, S., & Spasova, S. (2020). Planned online language education versus crisis-prompted online language teaching: Lessons for the future.

- Foreign Language Annals*, 53(2), 380–392.
<https://doi.org/10.1111/flan.12460>
- Gatbonton, E. (1999). Investigating Experienced ESL Teachers' Pedagogical Knowledge. *The Modern Language Journal*, 83(1), 35–50.
<https://doi.org/10.1111/0026-7902.00004>
- Golombek, P. R. (1998). A Study of Language Teachers' Personal Practical Knowledge. *TESOL Quarterly*, 32(3), 447.
<https://doi.org/10.2307/3588117>
- Halquist, D., & Musanti, S. I. (2010). Critical incidents and reflection: Turning points that challenge the researcher and create opportunities for knowing. *International Journal of Qualitative Studies in Education*, 23(4), 449–461.
<https://doi.org/10.1080/09518398.2010.492811>
- Hilton, J. T. (2016). A Case Study of the Application of SAMR and TPACK for Reflection on Technology Integration into Two Social Studies Classrooms. *The Social Studies*, 107(2), 68–73.
<https://doi.org/10.1080/00377996.2015.1124376>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The Difference Between Emergency Remote Teaching and Online Learning*. 15.
- Hsu, L. (2013). English as a foreign language learners' perception of mobile assisted language learning: A cross-national study. *Computer Assisted Language Learning*, 26(3), 197–213.
<https://doi.org/10.1080/09588221.2011.649485>
- Hsu, L. (2017). EFL Learners' Acceptance of Technology in a Computer-Assisted Language Learning (CALL) Context: The Role of Intrinsic-Extrinsic Motivation in English Learning. *International Journal of Information and Education Technology*, 7(9), 679–685.
<https://doi.org/10.18178/ijiet.2017.7.9.953>
- Hung, M.-L. (2016). Teacher readiness for online learning: Scale development and teacher perceptions. *Computers & Education*, 94, 120–133.
<https://doi.org/10.1016/j.compedu.2015.11.012>
- Joosten, T., & Cusatis, R. (2020). Online Learning Readiness. *American Journal of Distance Education*, 34(3), 180–193.
<https://doi.org/10.1080/08923647.2020.1726167>
- Kay, R. H., & Loverock, S. (2008). Assessing emotions related to learning new software: The computer emotion scale. *Computers in Human Behavior*, 24(4), 1605–1623. <https://doi.org/10.1016/j.chb.2007.06.002>

- Kim, C., Kim, M. K., Lee, C., Spector, J. M., & DeMeester, K. (2013). Teacher beliefs and technology integration. *Teaching and Teacher Education, 29*, 76–85. <https://doi.org/10.1016/j.tate.2012.08.005>
- Koehler, M. J., Mishra, P., & Cain, W. (2013a). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education, 193*(3), 13–19. <https://doi.org/10.1177/002205741319300303>
- Koehler, M. J., Mishra, P., & Cain, W. (2013b). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education, 193*(3), 13–19. <https://doi.org/10.1177/002205741319300303>
- Koh, J. H. L., Chai, C. S., & Lee, M.-H. (2015). Technological Pedagogical Content Knowledge (TPACK) for Pedagogical Improvement: Editorial for Special Issue on TPACK. *The Asia-Pacific Education Researcher, 24*(3), 459–462. <https://doi.org/10.1007/s40299-015-0241-6>
- Kubanyiova, M., & Feryok, A. (2015). Language Teacher Cognition in Applied Linguistics Research: Revisiting the Territory, Redrawing the Boundaries, Reclaiming the Relevance: The Modern Language Journal. *The Modern Language Journal, 99*(3), 435–449. <https://doi.org/10.1111/modl.12239>
- Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology, 4*(1), 2–22. <https://doi.org/10.1037/qup0000082>
- Li, L. (2020). *Language Teacher Cognition: A Sociocultural Perspective*. Palgrave Macmillan UK. <https://doi.org/10.1057/978-1-137-51134-8>
- Mama, M., & Hennessy, S. (2013). Developing a typology of teacher beliefs and practices concerning classroom use of ICT. *Computers & Education, 68*, 380–387. <https://doi.org/10.1016/j.compedu.2013.05.022>
- Martin, F., Wang, C., Jokiaho, A., May, B., & Grübmeier, S. (2019). Examining Faculty Readiness to Teach Online: A Comparison of US and German Educators. *European Journal of Open, Distance and E-Learning, 22*(1), 53–69. <https://doi.org/10.2478/eurodl-2019-0004>
- Mishra, P. (2019). Considering Contextual Knowledge: The TPACK Diagram Gets an Upgrade. *Journal of Digital Learning in Teacher Education, 35*(2), 76–78. <https://doi.org/10.1080/21532974.2019.1588611>
- Mukti, T. W. P., Swanti, V., & Teguh, M. D. (2020). Investigating The Implementation of ICT In Education Reformation: National Instructor Teachers' Perspectives. *International Journal of Language Teaching and Education, 4*(1), 13–22. <https://doi.org/10.22437/ijolte.v4i1.9096>

- Musanti, S. I. (2005). *Collaboration and In-Service Teachers' Professional Development: A qualitative Study on Knowledge, Identity, and Practice* [Dissertation]. The University of New Mexico.
- Muslem, A., Yusuf, Y. Q., Juliana, R., & Aceh, B. (2018). Perceptions And Barriers To Ict Use Among English Teachers In Indonesia. *Teaching English with Technology*, 18(1), 3–23.
- Pajares, M. F. (1992). Teachers' Beliefs and Educational Research: Cleaning Up a Messy Construct. *Review of Educational Research*, 62(3), 307–332. <https://doi.org/10.3102/00346543062003307>
- Parasuraman, A., & Colby, C. L. (2015). An Updated and Streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research*, 18(1), 59–74. <https://doi.org/10.1177/1094670514539730>
- Pratt, D. D. (1992). Conceptions of Teaching. *Adult Education Quarterly*, 42(4), 203–220. <https://doi.org/10.1177/074171369204200401>
- Puentedura, R. R. (2013). *SAMR: Moving from Enhancement to Transformation*. <http://www.hippasus.com/rrpweblog/archives/2013/05/29/SAMREnhancementToTransformation.pdf>
- Richards, J. C. (1996). Teachers' Maxims in Language Teaching. *TESOL Quarterly*, 30(2), 281. <https://doi.org/10.2307/3588144>
- Richardson, J. E. (2007). *Analysing newspapers: An approach from critical discourse analysis*. Palgrave Macmillan.
- Rodliyah, R. S. (2018). Vocational school EFL teachers' practices of integrating ICT into English lessons: Teachers' voices. *Indonesian Journal of Applied Linguistics*, 8(2). <https://doi.org/10.17509/ijal.v8i2.13308>
- Rogers, E. M. (1983). *Diffusion of innovations* (3rd ed). Free Press ; Collier Macmillan.
- Safitry, T. S., Mantoro, T., Ayu, M. A., Mayumi, I., Dewanti, R., & Azmeela, S. (2015). Teachers' Perspectives and Practices in Applying Technology to Enhance Learning in the Classroom. *International Journal of Emerging Technologies in Learning (IJET)*, 10(3), 10. <https://doi.org/10.3991/ijet.v10i3.4356>
- Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological Pedagogical Content Knowledge (TPACK): The Development and Validation of an Assessment Instrument for Preservice Teachers. *Journal of Research on Technology in Education*, 42(2), 123–149. <https://doi.org/10.1080/15391523.2009.10782544>

- Şenel, M. (2021). Exploring ELT Students' Professional Identity Formation through the Perspectives of Critical Incidents. *European Journal of Educational Research*, 10(2), 629–640. <https://doi.org/10.12973/eujer.10.2.629>
- Shulman, L. (1987). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57(1), 1–23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Tan, P. J. B. (2013). Applying the UTAUT to Understand Factors Affecting the Use of English E-Learning Websites in Taiwan. *SAGE Open*, 3(4), 215824401350383. <https://doi.org/10.1177/2158244013503837>
- Teo, T. (2011). Factors influencing teachers' intention to use technology: Model development and test. *Computers & Education*, 57(4), 2432–2440. <https://doi.org/10.1016/j.compedu.2011.06.008>
- Tripp, D. (1994). Teachers' lives, critical incidents, and professional practice. *International Journal of Qualitative Studies in Education*, 7(1), 65–76. <https://doi.org/10.1080/0951839940070105>
- Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Speier, C., & Morris, M. G. (2002). User Acceptance Enablers in Individual Decision Making About Technology: Toward an Integrated Model. *Decision Sciences*, 33(2), 297–316. <https://doi.org/10.1111/j.1540-5915.2002.tb01646.x>
- Venkatesh, V., Thong, J., Hong Kong University of Science and Technology, Xu, X., & The Hong Kong Polytechnic University. (2016). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. *Journal of the Association for Information Systems*, 17(5), 328–376. <https://doi.org/10.17705/1jais.00428>
- Wang, M. (2014). The Current Practice of Integration of Information Communication Technology to English Teaching and the Emotions Involved in Blended Learning. *The Turkish Online Journal of Educational Technology*, 13(3), 14.
- Wosnitza, M., & Volet, S. (2005). Origin, direction and impact of emotions in social online learning. *Learning and Instruction*, 15(5), 449–464. <https://doi.org/10.1016/j.learninstruc.2005.07.009>