Teaching Speaking to Enhance Interactional Competence in Digital Learning Environment: Challenges and Opportunities

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Abstract: The widespread technology utilization in language learning has created a digital learning environment in language classrooms in the past decade. The virtual exchanges alter such significant dynamics of online interaction at higher education in Indonesia. The purpose of this study was to investigate teachers' experiences on how they created a digital learning environment in the teaching of speaking to enhance interactional competence. It is a preliminary study seeking teachers who teach speaking. Open-ended questionnaires were spread via Google form to 19 English teachers of higher education. They were from universities in seventh different provinces in Indonesia, such as; Central-Java, East-Java, East-Kalimantan, NTT, South-Sulawesi, and West-Papua. The questionnaires result showed that each teacher has different challenges and opportunities in creating a digital learning environment for teaching speaking. One of the challenges experienced by teachers in these seventh provinces in Indonesia was an unstable internet connection that influenced the quality of online synchronous interaction. However, some teachers viewed opportunities for their technological competence improvements. In addition, online interaction allows students with shy personalities to speak more fluently and confidently than that in face-to-face interaction where they might experience anxiety. Motivation is also one of the most influential internal factors to create successful learning in digital learning. In conclusion, education in the digital era can be successful by creating a digital learning environment shaped by innovative teachers with good technological competence. Supportive internet facilities provided by the institution and parents' roles, certainly, are included as crucial in supporting the digital learning environment.

1 INTRODUCTION

Interaction is an essential part of face-to-face English language classrooms. Advancements in communication technology in the past decade have transformed face-to-face into a digital culture as well as supporting tools in the educational process. Moreover, the ongoing global COVID-19 pandemic since 2020 has forced educational institutions in most countries around the world to alter the teaching and interaction modes through virtual exchanges (Moorhouse et al., 2021). Teachers' technological competence is required to conduct online learning by utilizing virtual applications, platforms, or software for real-time virtual exchange or conferences.

Despite the force of using technologies during the pandemic, most, language teachers show many efforts to become innovative-21st-century teachers by utilizing technology and bringing a digital learning environment to their classes. The use of digital technology in education has been considered one of the themes of innovative pedagogies (Herodotou et al., 2019; Kukulska-hulme et al., 2021; Long & Shi, 2019).

However, virtual teaching and learning have brought attached challenges for tertiary English teachers in Indonesia, particularly in the way how the target language is activated through new applications for

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virtual conferences. Teaching in the digital learning environment is complicated, and it requires teachers to upgrade their technological competence aiming at creating a good digital learning environment to support students' learning. The complexity of digital teaching and learning includes the requirement of teachers' ability to communicate across a screen, engage using a two-dimensional image, facilitate active online interactions, attend to students' emotional needs across distance, maintain the sense of students' presence as not being physically gathered, and overcome troubleshoot on technical problems. They are all become challenges faced by teachers in the digital era.

In a positive vibe and for a sustainable educational process, teachers should overwhelm the challenges of digital teaching-learning with its complexity. The challenges in teaching online themselves should become a problem to be solved which teachers may transform into opportunities to create innovations in language teaching. The constraint of integrating technology for education during the pandemic is an asset toward 'momentous innovation.

(Peters, 2000) of digital pedagogy. It has to be admitted that Covid-19 pandemic bring a great shift on pedagogy and advantages for innovations particularly educational context. A purposive training program was conducted in a city in the middle part of Indonesia aiming at enhancing teachers' technological competencies (Misesani, 2021). Teachers who previously had less knowledge of skills on technology for teaching-learning were endeavouring to upgrade their technological competencies through the training program.

Several types of research on English Language Teaching recently connected the use and integration of technology to students' interactions (Ahmed et al., 2020; Moorhouse et al., 2021; O'Rourke & Stickler, 2017) and interactive practice in terms of online collaborative dialogue (Dooly & Vinagre, 2021; Strawbridge, 2021). They have studied the importance of classroom interaction in a synchronous online learning context. It is important to remark that this paper refers to virtual English classes conducted in the digital learning environment. The focus of this paper is on the teachers' technological competence, particularly how they expand their digital ability and make the best use of technology to create learning opportunities despite the problem of online learning they face. In simple words, what challenges are faced by English language teachers in Indonesia related to virtual exchange for language learning? How the teachers transform the challenges into opportunities to create a digital learning environment effectively in the post-pandemic?

2 TEACHING INTERACTIONAL COMPETENCE

The concepts of interactional competence have been proposed and conceptualized by some scholars like Kramsch (1986), Hall (1999), Young (1999, 2008), Walsh (2012). The term interactional competence is defined as teachers' and learners' mutual employment of linguistic, interactional, and identity resources in classroom interaction for mediating and assisting in learning of English language
. Walsh (2012) conceptualized interactional competence in the classroom context and termed it as classroom interactional competence attributed to Kramsch's (1986) and Young's (2011; 1999). In the complex process of linguistics interaction, Walsh (2012) suggested that joint competence that is interactional competence rather than solo performance in the teaching of speaking. Teachers who teach speaking skills should know the concept of interactional competence and promote a dialogic interaction approach to students.

Walsh (2012) assured that interactional competence is needed to endure communication encounters. L2 speakers should not only have the ability to produce accurate and fluent utterances but also the ability to understand the context, to listen and understand others' utterances, to clarify meanings, to repair and so on which refers to interactional resources. Having a concurrent view with Kramsch's (1986) that a push for interactional competence could give students an ability to participate in real-life L2 interaction, Walsh (2012) perceived that interactional competence requires extreme mental and interactional ability.

Giving students rich opportunities to interact in classroom collaborative dialogue is crucial to shaping and strengthening their mentality and confidence to speak in English. However, this doesn't mean that teachers just provide some topics and then let students choose freely after which they have a conversation or dialogue without purpose. There should be, still, teachers' interventions to make the teaching of interactional competence possible in a classroom context. Waring (2018) argued that teaching interactional competence should involve the teaching of pronunciation, vocabulary, and grammar as linguistic resources. Teaching linguistic resources is extremely supportive of the existence of interactional

resources such as turn-taking, sequencing, overall structuring, and repair. The complexity of teaching speaking skills reveals in the way students are required to be aware of their knowledge and skill. Therefore, teaching speaking explicitly is ultimate in language classrooms (Burns, 2019). Along with giving models of natural conversations, the teaching of various resources for speaking and communication strategies that is context-specific enables the implementation of real-world ELT.

2.1 Teachers' Roles and Competences in Digital Learning Environment

The educational research field was introduced to a theoretical framework named Technological, Pedagogical, and Content Knowledge (TPaCK) by Mishra and Koehler (2006) to give an insight into the teacher's knowledge and, thus, competence needed for effective technology-integrated teaching. The digital transformation in the educational context has also impacted the teacher's role in classrooms and affected their competencies. The teacher should consider taking into account more on their content, pedagogical, and technological competencies (Kebritchi et al., 2017) particularly for online teaching-learning. Moorhouse et.al (2021) found that in the digital learning environment, teachers need technological, managerial, and interactional competences in the teaching of interactional competence. Huang (2019) comparing the role of teacher in face-to-face and online classroom. Among teachers' cognitive, affective, and managerial roles being compared, it was found that in online learning, teacher's managerial role was at the highest mean.

The teaching qualification of a good teacher and lecturer in Indonesia has been formulated by the Minister of Education Number 16 in the year 2007, comprising Pedagogical, Personality, Professional, and Social Competence. A teacher's personality is attached to their professional identity which inevitably influences his or her identity. It represents the teacher's attitude, self-image, perceived roles, and commitment concerning the use of technology (Shafiee et al., 2022) for the teaching and learning process. The enactment of personal and professional competence, particularly, teachers' perspectives regarding their roles and the challenges faced in technology integration for learning constituted a major theme in this study.

Addressing the pedagogical endeavors to link knowledge and skill for a successful and effective technology-enhance language teaching is the most role of a teacher. Professional roles of teachers in higher education include teacher-educator, researcher, and community service practitioner. The teacher-educator incorporates the role of instructional designers by creating a socio-cultural context of language classes in which teachers facilitate interpersonal communication in online learning environments which encourage collaboration, dialogue, negotiation, and critical thinking. This instructional design is tied to the notion of a learner-centered approach in the Indonesian curriculum that has been most associated with collaborative learning among peers and teachers.

A digital learning environment can be created mostly by the role of the teacher as an instructional designer which requires pedagogical and technological competence. The endeavor to deal with technological challenges such as malfunctions during online platform use also contributes to the creation of a digital learning environment. Many researchers found that teacher's perspectives and attitudes toward digital learning challenges influence the decision of selecting appropriate instructional approaches, digital tools, strategies, and evaluation in teaching (Hakeem Barzani et al., 2021; Hill et al., 2009; Nazil Iqdami, 2016; Peters, 2000; Romero Archila, 2014; Shafiee et al., 2022; Su & Zou, 2020; Wang & Huang, 2018). In this way, in the digital learning era, teacher's professional development deals with gaining knowledge, confidence, and experiences regarding their values and perceived roles of management and decision making in technology integration (Shafiee et al., 2022). Particularly, in understanding that collaborative dialogue is for sure possible to speak online, teachers should decide to choose the available interactional tools for video conference. This decision is crucial to create digital learning environment where teacher has mastered the chosen online interactional tool.

The teacher should also concern with students' knowledge and skills on online interactional tools. It is unavoidable that sometimes, teaching online is not only teaching the material content or skill but also includes teaching students about how to operate features in online interactional tools. It means that the role of the teacher is still needed even though the use of technology may enhance students' learning. In the digital learning environment, the mediation of technology and the teacher's role are complementary to each other.

2.2 Virtual Exchange as Collaborative Dialogue in Language Teaching and Learning

The term virtual exchange has been widely used to refer to communication through the use of technology which also termed as tele-collaboration, e-tandem or synchronous communication. Dooly and Vinagre (2021) viewed that virtual exchange is a pedagogical approach that can be considered as an alternative for communicative language teaching approach. The concept of online interaction here is synchronous or real-time class interaction where students practice their English speaking. Many researchers grew their attention to the effectiveness of technology-enhanced collaborative dialogue to improve students' language skills (Chang & Windeatt, 2016; Mahmud, 2018; Su & Zou, 2020). Virtual exchange in language classrooms which is carried out synchronously has its growing trend of the use of communication software such as Zoom, Skype, Microsoft Teams, or Google Meet. Some applications also may become online media for virtual exchange such as language exchange apps like Hello Talk or Tandem, or numerous websites with conversation exchange options like LiveMocha which, however, is outside of the classroom context and beyond the teacher's control.

Learners' exchanges in L2 speaking practices are displayed through interactional resources which is done regularly over time, eventually, show developments of their interactional competence in an online task-based learning environment. Balaman and Sert (2017); Su and Zu (2020); and Zeng (2017) investigated the role of collaborative dialogue through synchronous interaction for language learning. They found that technology-mediated task design has an impact on the development of learners' L2 interactional competence. It showed the positive role of interaction and the effectiveness of teachers' design with the basic goal was providing an online task environment to enable participants' engagement in multiparty interaction.

Young adult students have possessed self-regulated learning autonomy including the learning of new technologies useful in digital learning environments. Therefore, teaching them how to operate some programs or online applications does not need great effort. The main point of speaking class through a virtual exchange is to give students rich opportunities to be active in the dialogue using English. Ha Le et.al (2018) found that one obstacle that teachers faced is students' lack of collaborative skills. Therefore, as mentioned previously in this paper, teachers should facilitate students' collaboration in online learning particularly in the context of higher education. It means that the student's active participation in virtual exchange also becomes a supporting factor in creating a digital learning environment. Opportunities to have dialogue would make such a lively virtual exchange that it is beneficial for students' use and development of linguistic and interactional resources.

Being an interactive speaker means also becoming a good listener who understands what other's speaker intention and the context to give feedback or respond appropriately (Ha Le & Wubbels, 2018). The successful collaborative interaction is signified by the conception of reciprocity, mutuality, alignment, and shared understanding (Arvaja & Hämäläinen, 2021). Therefore, a successful virtual exchange for language teaching learning, particularly in teaching speaking, is characterized by productive interaction through collaboration between peers and also with the teacher. With the intention of achieving successful collaborative dialogue in virtual exchange, teachers should explicitly mention the collaborative goals. In addition, teacher's immediate feedback, correction, and motivation are needed during the virtual exchange. Such a way would make students active in the turn talk and shape their interactional competence whether it is face-to-face or virtual exchange. The mediation of technology is really important to keep students gathered in virtual classes during and after the pandemic.

3 METHODS

This was a qualitative research employing thematic analysis as a method for describing qualitative data which also involves interpretation in the processes of selecting codes and constructing themes (Braun & Clarke, 2008; Kiger & Varpio, 2020). The thematic analysis enables the development of knowledge that is constructed through interactions between the researcher and the research participants which shows that meanings are socially constructed. Six phases of thematic analysis including 1) Transcribing data, 2) Generating initial codes, 3) Collating codes into potential themes, 4) Reviewing themes, 5) Defining and naming themes, 6) Producing a report. (Braun & Clarke, 2008).

The instruments of this study were questionnaires and interview questions. The questionnaires were formulated in two parts including closed-ended and open-ended questionnaires. The closed-ended

questionnaire consisted of 3 items that were adapted from Jin (2021) applying yes-no questions which were done to obtain whether technology integration was used before, during, or/and after covid-19 pandemic. Open-ended questionnaires were administered through Google form, followed by semi-structured interview questions via Zoom conference. These two phases were conducted in rapid time. The questionnaires and interview topics were related to issues or challenges that the teachers encountered during online learning which came from internal and external factors. The internal factors were from the teachers themselves including technological, pedagogical, social, and managerial competencies. (Kebritchi et al., 2017). The external factors were technological issues in creating digital learning environment (Fernando et al., 2020).

The participants of this research were 19 English teachers of higher education. They were from universities in seventh different provinces in Indonesia, such as; Central-Java, East-Java, East-Kalimantan, NTT, South-Sulawesi, and West-Papua. The teachers-participants were coded from T1 to T19 with these details: T1, T2, and so forth until T19. Teachers who had not integrated technology in teaching and learning were T2, T3, T12, T13, T14, T15, T16, T18, and T19. There were 84% of all participants were considered senior teachers who have more than 5 years of experience in teaching English. Most of them have been teaching students at second-year and third-year levels who regarded as having intermediate linguistic and interactional resources.

Table 1: Teachers-Participants Background (∑n = 19 in each category).

Category	Sub-category	n	∑n
Institution Region	Central-Java,	2	19
	East-Java,	9	
	East-Kalimantan,	1	
	NTT,	5	
	South-Sulawesi,	1	
	West-Papua	1	
Course(s) Taught in 2019-2022 Periods	First-year	2	19
	Second-year	10	
	Third-year	7	
	Fourth-year		
	Others		
Experience in Teaching English	< 5 years	3	19
	5-10 years	8	
	> 10 years	8	

The qualitative data obtained from open-ended questionnaires and interviews were used to generate initial codes and collate them with some themes. The participants who have chances to be interviewed were eight teachers to get confirmation and further explanation from the questionnaire results. However, other data resulting from the open-ended questionnaire were clear and complete enough to be analyzed in the coding phase, thus, further interviews were not necessarily done.

4 RESULTS AND DISCUSSIONS

The results of this study comprised of three sub-sections which is in the first presents the challenges, the second presents the opportunities, and the third discusses how teachers transform challenges into opportunities and summarizes those into several themes. It is important, here, to provide the closed-ended questionnaire results as a prelude to wider results of open-ended questionnaire results. They are presented in Table 2 as follows:

Table 2: Technology Integration for Teaching (before, during, and after COVID-19 pandemic).

Technology for Teaching	Yes (n)	No (n)
I integrated technology for teaching *before* covid-19 pandemic	10	9
I integrated technology for teaching *during* covid-19 pandemic	19	0
I integrate technology for teaching *after* covid-19 pandemic	17	2

The first table row presents the result of technology integration in language teaching before the outbreak of covid-19 pandemic. It means the time bound was before December in the year of 2019. It can be seen that 10 teachers-participants had already integrated technology which refers to both synchronous and asynchronous internet modes for learning. Particularly, in synchronous mode 5 of 10 teachers (T1-T5) had used zoom for online meetings outside of the official scheduled. The online meetings via zoom were done for discussing students' home assignments. Other than those were used to replace missed-class or make missed-class up. There 4 others of 10 teachers (T6-T7) who integrated technology through asynchronous mode by using Google classroom. Meanwhile, WhatsApp was generally used by all 19 teachers-participants for class communication on daily basis.

One teacher (T10) was considered as remarkable on using technology for language learning, since this

teacher has been consistently using Skype for conversation with foreigners who know and speak English. They could be students, teachers, tutors, or professionals of English language. Here, the dialogic approach in teaching speaking has been used. T10's students were given opportunities to have conversations with other speakers of English from many countries via Skype video conference. The topics were provided by this teacher that students might choose one to be brought into conversation with native or foreign English speakers. This was a program held every two weeks in speaking class started at third semester level.

The second row of table 2 shows that during the outbreak of covid-19 pandemic, all the 19th teachers-participants utilize technology and integrated it to teaching language. In Indonesia, this pandemic was in its outbreak from March 2020 until September 2021 when so many people suffered and died from covid-19 virus. The government of Indonesia, through The Minister of Health and the Minister of Education, issued a lockdown situation where students should learn from home and employees work from home too. The 9 teachers realized there was no other way to have class meeting online to reach out students from distance. This distance learning had made them learning new apps and/or software for teaching-learning process during the social distancing.

The third row shows the result of technology integration after the pandemic or post-pandemic period. There were 17 teachers who consistently integrating technology for classes in combination to face-to-face learning which is usually called as hybrid learning. However, 2 others went back on implementing face-to-face class meetings and no longer used online asynchronous and synchronous platforms. They were 1 teacher from West Papua and another from NTT. The reason for not conducting online class was due to the bad internet connection and low students' engagement during online learning. Particularly, the internet facilities in a university in Papua did not support digital learning environment. The teacher had her own great efforts and internet costs to keep in touch with students during remote learning with low students' presence. Thus, in the post-pandemic period, face-to-face meeting was the best choice for all students.

4.1 Challenges in Teaching Interactional Competence Through Virtual Exchange: Internal Factors

A higher education teacher, also called a lecturer, has a wide range of responsibilities such as teaching,

researching, assessing students, writing-publishing research, and serving community service. In digital learning, preparing a technology-integrated pedagogical approach give teachers a significant additional workload. One of the most online learning issues during the pandemic outbreak was teachers' lack of digital skills or technological competence, students' participation, and bad internet connection. One way or another, this might influence the effectiveness of teaching and learning which resulted in students' learning loss.

Teachers' perspectives on those challenges are worth researching by analyzing their sentences, wordings, or utterances. Here are the challenges faced by some teachers-participants in this study:

Table 3: Challenges of Technology Integration for Teaching related to Teacher's Technological Competence (during COVID-19 pandemic).

Participant	Challenge
T3,12,14,16, 18,19	I never knew or used online platforms before, but because of the pandemic and …. I used WA to share information
T2, T13	I only used WhatsApp to communicate with my students, I really had to learn a lot about technology for teaching
T15	I tried to have an assistant beside me during online meeting, but then I got used to it. WA was the only social media I know
T14	It is time-consuming work to think the concept of teaching online, maintain user-friendly classes and upload materials to a digital platform.

The requirement for all education stakeholders to utilize technology during the pandemic was keep the learning process going. For these 9 teachers, this was a force because they had not used it prior the pandemic. Online teaching and learning became the most popular option during the pandemic that they had to learn how to apply applications and software others than WhatsApp. The sudden adaptation of online learning during the pandemic seemed to be a big challenge for teachers who had not put technology integration into their teaching practice. This was because many technologies are available on the internet. Each has different features, methods, and protocols that these teachers should have learned as beginners, then, they had to master those immediately in such rapid time.

The prior perception about teacher's technological competence was that it relates only with how to create power point for class presentation, and this was a good opportunity for them to learn new

internet-based technology for remote learning. From further interview results, two of them had to take certain training for using platforms or application while the rest managed to learn by them-selves. They learned from their colleagues and YouTube, while some were trained by trainers from their institution purposefully. By experiencing this, teachers' competences were developed with multimodal technologies. In the view that dialogic interaction is crucial to foster students' interactional competence, synchronous virtual exchange was important. These teachers did not give up with their lack of technological competence. As a matter of fact, they could just assign students to make recording of their English speaking and submit them on due date. Real-time interaction through virtual exchange is so important, that the teacher should give direct feedback about their linguistics and interactional competence although sometimes they could not see each other through cameras.

Teachers also needed money to buy the quota because they used the quota to communicate and share materials from home. The available connection provided in their campuses was at low quality, since all teachers used it for synchronous online classes. Thus, teachers still needed asynchronous way to keep students in touch and shared materials. Even though they were given internet quota from the government, it could not cover all of the online teaching activities.

Following, the challenge of online learning was related to teachers' concern with their students' during virtual exchange. Students' attitude and behaviour toward and during online learning were also included as challenges faced by teachers. One of the teacher's responsibilities in virtual exchange to create such digital learning environment that made students become active, interactive, and enjoy in speaking activities. However, in the early practice of online learning due to the pandemic, the teachers found challenges from students where they made less eye contact, gesture, and spontaneity. Although communication was still possible in virtual exchange, but the teachers felt that body language, gesture, and eye contact were more limited that those in direct or face-to-face meeting.

Teachers from the Centre and the East part of Indonesia, those were T14-T17, T18, and T19 observed that some students did not enjoy practicing speaking online. It was seen that in the virtual exchange, they could not express themselves using English with ease. The new method of virtual exchange might seem awkward to them that they felt uncomfortable. From the teachers' perspectives, it happened because the contagious cases of Covid-19

in these regions were not as many as those in the West part of Indonesia. In addition, most students had problems with the provision of cellular data and compatible gadgets. The low internet connection they have became the reason they turned the camera off all the time during the whole class sessions. Thus, the teachers could not control the students and see whether they were in front of or around their devices. However, some students were still willing to take their cameras on when it was their turn to talk.

Another challenge experienced was students' attendance at the beginning of remote or distance learning. Some of their students could not adapt to the platforms used for online classes which affects the students' attendance. Other students who had supporting devices and internet connections managed to handle the way to use the platform without the teacher's guidance. Many students live in the rural area where the signal was poor even if they have sufficient facilities. However, it was found that a teacher wasted time by calling out each student's name during the online attendance checking. Then, he realized that such a practice was not suitable for online learning. Teachers should have strategies to use the limited time and online resources effectively so that the online classes could be filled with significant knowledge transfer and language practices.

During the Covid-19 pandemic, particularly, the lack of teachers-student interactions was in slow progress because of the lockdown situation in every institution. The teachers considered that students' social and interactional skills could not be elevated through virtual exchange. One way or another, it needed the teacher's role to motivate students to keep on joining online classes and complete the tasks given.

4.2 The Challenges from External Factors: Parents and Institutions

Difficulties in all aspects of human life occurred during the spread of the contagious Covid-19 virus. Parents' economic conditions and educational institutions have also been affected by the pandemic. Lack of financial and technological infrastructures become a major problem, especially in those frontiers, outermost, and least developed regions in Indonesia. The issue of parents' low income has been challenging in NTT and Papua. They prefer their children to go face-to-face classes at their campuses because going online would take so much cost like supportive cellular phone, laptop, and internet connection.

Table 4: Challenges from External Factors in Online Learning (during COVID-19 pandemic).

T 18; T13-T17	Parents living in the city spend so much money for online learning. But how about those who live in remote areas?
	Parents were complaining because their children could not learn well and it consumed much money for internet
T13-T17	Institution chose platforms that are based on cultural, social, structural and limited economic situation.
	Institution is required to provide fast internet connection for teacher and students
T19	Parents' low income is one of the obstacles here. The institution facilities did not support online learning. The online learning was rarely done during the pandemic.

In Table 5, it can be seen that students coming from low-income families were common in these regions. Previously, students may access free internet connection from their educational institutions, but because of the movement of learning from home, students had to buy internet connections on their own. The lack of internet access at home has made learning lost because students could not attend the online classes set by their teachers.

The transformation from traditional face-to-face education to digital learning has brought challenges for universities and institutes. For the stakeholder of every institution, the pandemic situation has been very problematic as complaints came from parents and students. They have to decide what platform should be adopted for their students that suits the surrounding economic condition.

4.3 The Opportunities of Teaching Interactional Competence in Virtual Exchange

Teachers who put great efforts to overcome challenges that might come from internal or external factors were worth researching. The identification of challenges in integrating ICT technologies in higher education should be done with care, because the challenges occurred may be different from one to another campus. It is crucial to see how teachers or lecturers use particular strategies and improve their competencies for effective online learning. The next section presents how the teachers-participants cope with the challenges and transform them into opportunities to retain technology integration as innovative pedagogy in the post-pandemic period.

The results obtained from the interview sessions showed that on technological competence, the teachers perceived that the forced use of technology for learning during the pandemic was the chance for them to gain more knowledge and skill to operate the existing software, platforms, or applications.

T4,T18 : *I should know how to apply online learning applications and platforms to keep on teaching my students from home. I also learned to make contents on YouTube.*

These teachers realized that they should have good knowledge and skill to enter such digital learning environment. In a more positive way, teachers become more digital literate who can operate various existing online applications and platforms. They become more creative and innovative in their pedagogical competence. This result highlights the importance of teachers' technological competence to ensure their professional identity and security. They have become more confident that a 21st century teacher is an innovative teacher who has technological-pedagogical competence.

Some teachers saw that virtual exchange is an opportunity for shy students to speak up more during the class activities in compare to face-to-face class in which shy students might have got nervousness while they were speaking. These teachers found that shy students were more confident in practicing speaking through virtual exchange. One lecturer with a belief that language learning as a collaborative activity had set events to provide students opportunities to interact in online learning by collaborating with his English speaking friends from many countries. Other teachers assigned students into groups to have interaction in English through break-out-rooms. Another lecturer focused on students' fluency rather first, because sometimes students had to deal with bad internet connection that caused loss voices.

T2-T19: I make them work in groups to interact and collaborate in break-out rooms. I found that shy students were more fluent in speaking, despite their errors in grammar use.

T15: Let them interact with each other as long as they use English and understand the meanings. I only give feedback after they finish the conversation. The feedback is usually about inappropriate grammar and vocabulary they use in the conversation.

T8: I have been using Skype in my speaking program. I set the online session for online interaction between my students and my foreign friends. I can manage my time and

schedule easier by using an online meeting platform to teach speaking skill.

A teacher also used pictures and written textual hints to support student discussion which was done as preparation before discussion in English. During the discussion, there might be only three or four students engaged in the turn-talk. However, this was an opportunity for other students to be active listeners who would be asked about the discussion when it was over. One of the characteristics of someone with good interactional competence is that he or she is an active listener understanding the topic being discussed and later, giving a reaction to the speaker/s. In this process of taking action and giving re-action through spoken language here means having interactional competence.

There was also a possibility seen by a teacher to develop online teaching materials by making pdf flipped books which can be linked with YouTube videos relevant to the learning topics.

T9: Era digital become teaching online platform is quite interesting because the lecturer easier to access some resources as a teaching materials. I can make a module with pdf flipped book now.

The responsibility for preparing and planning materials for online courses is on teachers. Adjusting from face-to-face material content to an online setting could be very challenging. With this result, it shows that incorporating multimedia into online course design might be needed by some teachers and it is an opportunity to develop teacher's technological competence. It is important to note that multimedia options allow students to master the material content independently. The developed materials can be accessed by students through platforms that are available in the universities.

Online platforms for education may have not been used in many universities before the pandemic. However, the emergence of remote learning during the outbreak of the contagious covid-19 virus became an opportunity for a university in NTT to implement Microsoft Teams as its official online learning platform. Four teachers from NTT were in the same university in which this platform was purposefully applied for online learning during the pandemic. This online program was started in April 2020 where all administrators, students, lecturers, or teachers were trained for a couple of days. This platform is still used currently for all the hybrid learning courses.

4.4 Themes on Challenges and Opportunities Encountered by English Teachers

The themes related to challenges and opportunities encountered by the teachers in teaching speaking through the virtual exchange to enhance interactional competence are divided into four. Figure 1 shows the result of collating codes of challenges and opportunities encountered by teachers-participants of this research. The first is about the digital transformation in which there are challenges faced by the teachers during the transformation from face-to-face learning interaction to online learning interaction. Teachers had to cope with the challenges of 'being forced'-intention to adopt online teaching, mastering new technologies, and creating a digital environment for students during the pandemic. Then, there are opportunities to conduct hybrid or blended
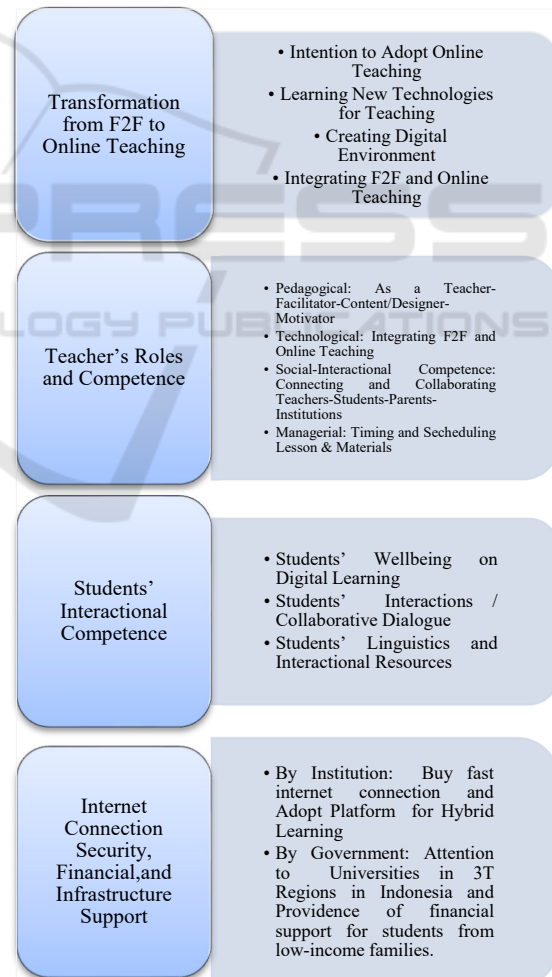

Figure 1: Themes of Challenges and Opportunities in Digital Learning.

learning by integrating both face-to-face and online teaching. The second theme is categorized based on theoretical themes such as teachers' technological, pedagogical, social, and managerial competencies along with technological-infrastructure issues. They are presented sequentially from the most repeated pattern or theme to the least apparent theme in the collected data. The first and most challenging was related to teachers' pedagogical competence in which they have complex roles in online learning as a teacher, a facilitator, content and instructional designer, and a motivator to students. Teacher's technological competence was in the second order because only two teacher participants that hardly adapt to new technologies while others had already familiarized themselves with online learning. Yet, technological competence is crucial in online learning.

The teacher's social competence deals with their role of connecting and collaborating with other teachers, students, parents, and institutions. In this study, it is connected to interactional competence, since this role aims at gaining mutual understanding and thus, collaboration with all aspects that leads to successful language teaching and learning. Carrying out online courses also needs a managerial role in which teachers create timelines and schedule for their students. It all deals with the preparation of instructional course design. Timeline and schedule deal with when the uploaded online materials can be seen by students before the scheduled synchronous virtual exchange. Here, the students have to learn from the available materials before the speaking practice. It is crucial for effective and fruitful interaction through the virtual exchange as students have already possessed background knowledge of the topic.

The students' interactional competence per se became the challenge faced by teachers. Teachers could not control the students as they often turned off cameras during interaction in virtual exchanges. While linguistic and interactional resources still could be observed in virtual exchange, teachers need to assess students' facial expressions and gestures. Teachers' presence during collaborative activities in virtual exchange and their attention to the linguistic and interactional resources employed are vital for the completion of collaborative activities and the achievement of inter-subjectivities. Finally, poor or bad internet connection is commonly a cliché challenge in the digital learning environment.

5 CONCLUSIONS

The challenges of online learning can be transformed into opportunities. Teachers, students, parents, and universities acquire insight into how to prepare and cope with pandemic situations that could happen anytime in the near or far future. Integrating technology for education during the pandemic is an asset towards 'momentous innovation' (Peters, 2000) of digital pedagogy where innovative teachers transform or turn challenges into opportunities.

Teachers who previously had less knowledge of skills on technology for teaching-learning were endeavoring to upgrade their technological competencies through experiencing during the covid-19 pandemic, then, committed to integrating technology after the pandemic. Here, opportunities arose from challenges in terms of teachers' competence and professional development. Identity as a teacher is supported and strengthened through the development of technological-pedagogical competence.

It is affirmative that Interactional Competence is teachable through collaborative virtual exchange (Moorhouse et al., 2021; Zeng, 2017) where teachers, students, parents, and educational institutions are supportive of the digital learning environment. However, physical face-to-face interaction is consistently needed by learners, therefore further investigation of learners' slides is suggested. Face-to-face and online interactions are not to be compared in the post-pandemic era, rather they can be combined which is vastly known as hybrid learning. Giving immediate feedback (on linguistic-interactional resources) in teaching speaking is crucial for students' development particularly to enhance interactional competence.

Students' perception and subjective well-being regarding the effect of virtual exchange to enhance their interactional competence are needed to be investigated for further results. They would be supporting factors in the advancement of interactional competence, in terms of extra-linguistic factors. Last but also important is that about internet connection, the Indonesian Minister of Information and Technology should pay attention and support more to upgrading the Internet-based facilities for education in the Centre and East Regions of Indonesia.

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