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Students' cognitive engagement during emergency remote teaching: Evidence from the Indonesian EFL milieu

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Abstract

The Covid-19 pandemic has influenced various dimensions of higher education systems globally, including English language learning. To illustrate, the pedagogical practices should be altered from face-to-face to online modes. This move affects students' learning engagement, notably cognitive engagement. Although myriad studies have focused on probing students' cognitive engagement, little is known about how students engage cognitively during emergency remote teaching (ERT). To fill this void, this study investigated students' cognitive engagement in English language learning activities in an ERT environment. Sixty students from three Indonesian higher educational institutions were involved as participants. The data were collected through a semi-structured interview and analyzed with thematic analysis (Braun & Clarke, 2006). The findings revealed that students, (1) deploying metacognitive language learning strategies, (2) possessing self-regulated learning, (3) designating English language learning motivation, (4) showcasing critical thinking as a manifestation of students' cognitive engagement, and (5) connecting teaching materials to the students' daily life. The implications of this study call for emphasizing students' English language learning needs and teachers' continuous professional development.

Keywords: emergency remote teaching; Indonesian EFL context; online learning; students' cognitive engagement

1. Introduction

COVID-19 or severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) has raised considerable impacts on the entire aspects of life, such as public health, economy, education, industry, tourism, politics, and cultural and religious facets (Carr, 2020; Guan, Deng & Zhou, 2020; Hasan & Bao, 2020; Koenig, 2020; Rundle, Park, Herbstman, Kinsey & Wang, 2020; Sintema, 2020; Yen, 2020; Yezli& Khan, 2020). The virus was initially diagnosed in Wuhan, China, in December 2019. Since then, it has scattered globally (Guan, et al., 2020; McKelvey, 2020; Sintema, 2020; Yezli &

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Khan, 2020). As a result, the World Health Organization (WHO) officially announced that COVID-19 is a pandemic (Yezli & Khan, 2020). As of 10th May 2020, the COVID-19 pandemic has spread to more than 200 countries around the world (Rajhansa, Patilc & Goyal, 2020). As of 20th August 2020, there have been 21,989,366 confirmed cases and 775,893 deaths (WHO, 2020). Such a pandemic arises a nerve-wracking circumstance forcing people to adapt to new-fangled situations and select proper actions to face them (Guan, et al., 2020). To illustrate, a great number of people around the world (e.g. educators, researchers, students, corporate personals, economists, etc.) are imposed to carry out a thorough or partial lockdown and isolate themselves for a certain period (Cooper, Mondal, & Antonopoulos, 2020; Ustabulut & Keskin, 2020). Medically speaking, self-isolation (self-quarantine), early diagnosis, and treatment are regarded as effective strategies to prevent human-to-human virus transmissions (Zu, Jiang, Xu, Chen, Ni, Lu, & Zhang, 2020). In response to this crisis, social distancing interventions or even lockdown have become a consensus of several countries to mitigate the outbreak, such as the United States, Italy, China (Ren, 2020), Spain (Baldasano, 2020), Saudi Arabia (Yezli & Khan, 2020), India (Mahato, Pal, & Ghosh, 2020), Japan, Singapore, South Korea, and Taiwan (Lu, Cheng, Qamar, Huang, & Johnson, 2020).

One of the most affected sectors of this lockdown policy is education, in higher education (Crawford, Butler-Henderson, Rudolph, Malkawi, Glowatz, Burton, Magni, Lam, 2020; Sahu, 2020). As a matter of fact, numerous universities around the globe suspended or retracted the entire campus programs (e.g. conferences, workshops, sports competitions, etc.) (Sahu, 2020). Then, most universities alter their curricula from conventional to online modes in a rush (e.g. online learning system, technology-enhanced learning, etc.) (Crawford, et al. 2020; Sahu, 2020). Additionally, several universities stop the entire academic activities because they should disinfect campus infrastructures and facilities after students' positive results of COVID-19 (e.g. University of Sydney) (University of Sydney, 2020). Other issues are related to the problems of teachers who are not techno-savvy and inadequate infrastructure and information and technology (IT) appliances to support immediate online learning activities (Sahu, 2020). For these reasons, equipping the teachers with Technological and Pedagogical Content Knowledge (henceforth, TPACK) and supporting them with more representative ICT-based infrastructures and facilities remain vital to attain effective learning activities (Peng & Daud, 2015).

In the Indonesian educational context, the Ministry of Education and Culture (hereafter, MONEC) has officially announced that every educational institution from the lowest (primary education) to the highest one (tertiary education) is required to conduct its activities in online modes (MONEC, 2020). This was initially aimed at minimizing the COVID-19 outbreak and maintaining national educational quality (Fatkhuri, 2020). However, this has influenced the Indonesian educational system and practices entirely. For instance, the closure of educational institutions can affect the learning performances and outcomes because it necessitates teachers and students to possess new skills regarding the integration of technology into pedagogical practices. Besides, online distance learning policy can extend the gap between the prosperous and the indigent groups of students (Yarrow, Masood, & Afkar, 2020; Berners-Lee, 2020). Also, online learning activities potentially lead students to have saturating and stressful senses (e.g. staying at home and inadequate social interaction) due to physically less active activities and cumulative tasks from their teachers (Brazendale, et al., 2017). Further, parents have faced challenges to familiarise themselves with novel learning policies due to unclear technical information and guidance both from government and educational institutions (Fatkhuri, 2020). Given these facts, evaluating and improving the distance or online learning system should be prioritized to accelerate the recovery of national education during this severe pandemic (Yarrow, et al., 2020).

One of the most central issues in educational practices is students' engagement (Pagán, 2018). Fredricks & McCloskey (2012) argue that students' engagement refers to the students' willingness and active involvement in educational institutions-based programs. It is represented in the incorporation of motivation and practical actions (e.g. literacy activities) to reach the expected learning outcomes (Guthrie, 1996). However, the COVID-19 pandemic has significantly affected students' engagement. As an illustration, students tend to perform passive academic behaviors because they suffered from overtime online learning activities compared to face-to-face ones. Besides, they encounter obstacles when implementing self-isolation, such as self-indiscipline, obstructive learning atmosphere, abundant learning tasks, and learning attitudes (Bao, 2020). With these in mind, promoting adaptable teaching and learning activities during this pandemic remains pivotal to optimize educational technology adaptation and available resources, collaborative participation among teachers, and engaged students. Nonetheless, the issue of students' cognitive engagement during the post-pandemic era seems to be scarce.

A plethora of studies has focused on problematizing the effects of COVID-19 on education. As an example, Leacock & Warrican (2020) probed the response of Caribbean education authorities to COVID-19. They discovered that the Caribbean government set readiness, equity, and care as the prioritized response to educational practices during the pandemic. Another study accentuated the effects of COVID-19 on medical education (Ferrel & Ryan, 2020). The findings designated that utilizing technology to support medical students in fostering their skills and innovative manners remains crucial. This gave them a chance to engage in academic and non-academic extracurricular activities effectively. Additionally, Osman (2020) scrutinized the impacts of the COVID-19 pandemic on the Sultanate of Oman and its educational system (e.g. Emergency Remote Teaching). He pointed out that Emergency Remote Teaching (hereafter, ERT) is first promoted to safeguard people from the COVID-19 infection in a temporary period. Nonetheless, it has transformed national education totally from the primary to tertiary levels of education. Furthermore, Iyer, Aziz & Ojcius (2020) conducted an empirical attempt on the impact of COVID-19 on dental education in the United States. The findings revealed that dental educational institutions ought to accentuate refocusing their programs, particularly emergency strategies for mitigating the plague. Further, Talidong & Toquero (2020) examined Philippine teachers' practices to deal with anxiety amid COVID-19. They reported that teachers performed virtual learning, shared ideas with a professional community, obey self-isolation policy and carry out planned and focused activities to resolve anxiety during the pandemic. However, empirical inquiries investigating students' cognitive engagement during ERT during COVID-19 are rather limited (e.g. Gares, Kariuki, & Rempel, 2020), notably in the Indonesian EFL context (e.g. Rahiem, 2020). For these reasons, the present study sought to occupy this empirical gap by scrutinizing students' cognitive engagement during ERT in an Indonesian EFL setting. More specifically, this study addressed the following research question: How do students engage cognitively in English language learning activities in an Emergency Remote Teaching environment?

1.1. Literature review

1.1.1.Cognitive engagement

Cognitive engagement refers to student interest in learning, the ability to undertake difficult mental challenges, and the use of self-regulatory techniques to monitor the processes of thought (Reeve, 2012). It depends on a variety of interlinked variables that have an impact on their learning motivation, their commitment to their learning environment, and their involvement in school learning processes. Moreover, it plays a key role in predicting successful academic performance for students and refers directly to the use of learning strategies, which means that students understand and track cognitive learning patterns, and the use of multiple learning strategies can lead to varying levels of thought (Hu

& Li, 2017). This explains the ability of students to deal with learning materials through their learning methods and to foresee their success by reflecting on what has been learned and how to learn better.

Fredericks, Blumenfeld & Paris (2004) suggest that cognitive engagement involves thoughtfulness and the ability to make an effort to learn subject matter and master skills. This involves the level of academic challenge, constructive and collaborative learning, student-faculty interaction, and enriching educational experience (Kuh, 2001). Besides, Greene (2015) believes that cognitive engagement is a superordinate construct and that the basic strategies for thinking about what one was learning, the reflections about how best to learn, and the exertion of mental effort to facilitate strategies and reflections have been components of cognitive engagement that differ depending on the experience of the learner and the demands of the learner. This connects all facets of the learning process that involve the learner's willingness to apply the ability to understand and monitor the learning environment based on a personal learning objective.

1.1.2. Emergency remote teaching

Terminology emergency remote teaching (ERT) becomes more prominent during the pandemic COVID-19 situation. ERT is described as a sudden interim change of instructional delivery to an online delivery mode as a result of an immense catastrophe, in contrast to the online courses which are initially planned and designed to be delivered digitally (Mohmmed, Khidhir, Nazeer & Vijayan, 2020). This defines a temporary change in instructional delivery to an alternative delivery model due to crisis circumstances (Hodges, Moore, Lockee, Trust & Bond, 2020). The ERT illustrates how crises can lead to sudden, widespread change in the elements that make up the learning environment; people in the environment, technology, design and layout of the space; and physical objects within the social and cultural context. By placing the teacher as the first to respond to an educational crisis, one with changing resources, priorities, and a primary point of communication with the student, the ERT can be a three-step framework for understanding and promoting learning in emerging crises: inquiry, the classification of available resources into constants and variables, and the design of educational experiences (Whittle, Tiwari, Yan & Williams, 2020). The primary purpose in these circumstances is not to re-create a functioning educational environment, but rather to provide immediate access to education and training in a manner that is easy to implement and readily available during an emergency or crisis. It is a way of thinking about distribution systems, processes, and media, especially as they relate to the ever-changing needs and limitations of resources.

Equating the idea of ERT with online learning is not quite appropriate. ERT appears to require the ultimate leveraging of the available virtual teaching resources to provide learning materials that would usually be provided by face-to-face contact. When the emergency has come to an end, the instruction processing will revert to its initial form. On the other hand, online learning can be seen as an open and collaborative learning platform that uses pedagogical resources, utilizes the Internet and web-based technology to promote learning and knowledge building through practical action and interaction (Dabbagh & Bannan-Ritland, 2005; Yundayani, Kardijan & Apriliani, 2020). Its learning process has been developed from the beginning and designed to be online so that both learners and teachers have already understood the process through online learning.

1.2. Previous studies

The global influence of Covid-19 is multifaceted and is visible in almost all industries, including the education sector. It promotes an increasing amount of educational study to establish new knowledge of the teaching-learning situation to enhance educational practice in the event of a pandemic. The earlier studies (Crawford et al., 2020; Osman, 2020; Ranga, 2020) showed that clearly, COVID-19 has been a real test for higher education institutions across the globe in terms of their level

of preparation, resilience, and adaptability to respond to similar global crises. It has provided online teaching platforms with a radically new perspective for educators and learners. Nevertheless, on the bright side, it serves as an effective 'change agent' for promoting rapid adoption of e-learning in such classically change-resisting institutions and facilitating the rapid adoption of e-learning in organizations that are classically immune to change.

Emergency remote teaching exposes essential factors for all teaching. Students have lost rich peer-to-peer communication networks that have been deleterious to understanding and inspiring them to engage and persist (Jeffery & Bauer, 2020). Unexpectedly, this research showed more clearly the significance of shortcomings in cognitive processing, social dynamics, peer participation, real-time communication, and hands-on manipulation in every educational environment (in-person or online).

In contrast, Gomez, Azadi & Magid (2020) and Alqurshi (2020) argued that collaborative and engaging teaching is feasible in the absence of in-person training. Distance learning through the right methods is capable of bringing people together, even though social differences enable us to remain physically apart. It has the benefit of technology integration, where diverse learning techniques can be easily applied. Not only does it promote exchanges, but it might also inspire students to be active learners rather than memorizing knowledge in conventional lecture formats.

Despite all these efforts, there is a lot of research in emergency remote teaching in the pandemic situation but there is no work on cognitive engagement in an emergency remote teaching environment. This paper aims to explore how students engage cognitively in English language learning activities in an ERT environment.

1.3. Research questions

In particular, a research question is addressed in this study, how do students engage cognitively in English language learning activities in an Emergency Remote Teaching environment?

2. Method

This study was framed under a descriptive case study to delineate students' cognitive engagement to English language learning activities in an ERT environment. Yin (2003) maintains that this research design enables researchers to gain a specific and authentic description of a certain circumstance. Also, Baxter & Jack (2008) note that this investigative design facilitates the researchers to comprehend an empirical issue from diverse perspectives. Further, this sheds a light between a case and its setting. As a result, adopting such an investigative design fits the context of the present examination.

2.1. Sample / Participants

Contextually speaking, the participants of this study were 60 students originating from miscellaneous ethnic groups (e.g. Sundanese, Betawi, Javanese, Padang, etc.), languages (e.g. Bahasa Sunda, Bahasa Betawi, Javanese, Bahasa Minang, etc.) and genders (30 males and 30 females). Their ages ranged from 18-21 years old. Academically, they were from diverse levels of education in higher education, namely freshmen, sophomores, and juniors. They were recruited for a number of considerations, such as (1) they indicated good motivation and learning engagement during pandemic-stricken English language learning activities, (2) they encountered relatively similar challenges to learn online, and (3) they agreed to take part in this study voluntarily.

In relation to investigative settings, the current study was conducted in three higher education institutions in Indonesia. These institutions were selected due to the existence of phenomena relevant to the current study, namely students' cognitive engagement to English language learning activities in

the ERT environment. Another reason, such institutions had official cooperation with the development of research, notably in English language pedagogy. Given these facts, these research sites remain proper to support the researchers in identifying their investigative issues and garner the data.

2.2. Data collection procedures

Dealing with ethical issues, they were provided comprehensive information about what, why, and how this study would be carried out. In particular, they were recommended to fill in and sign the consent form as a formal agreement to engage in data collection. More importantly, they were allowed to withdraw from this study at any time. To protect the privacy and confidentiality of the participants' identities, their names were renamed into pseudonyms, such as R # 01, R # 02, R # 03, and so forth.

In practice, the data were gathered through a semi-structured interview. Richards (2009) contends that a semi-structured interview is a type of interview based on certain topics adjusted to the context of a study. More specifically, the prescribed question topics for the interview covered online language learning, students' cognitive engagement, and emergency remote teaching. This was performed to avoid being in the too broad scope of the interview. In practice, the interviewers can cultivate the topics dynamically depending on the participants' responses and context of the study. Further, to triangulate the data collection, the present study applied participant triangulation. This triangulation was carried out since the participants originated from three diverse higher education institutions from assorted Indonesian regions, namely Tasikmalaya (N= 1 university, Jakarta (N= 2). Fielding & Fielding (1986) and Thurmond (2001) add that miscellaneous occurrence, periods, places and participants enhance the trustworthiness of the empirical findings. By doing so, the credibility, dependability, confirmability, and transferability of the data can be maintained.

2.3. Data analysis

Once the data had been collected, they were analyzed with Thematic Analysis (Braun & Clarke, 2006). This analytical technique was deployed since it enables the researchers to gain more adaptable, plural, and flexible analysis results (King, 2004; Braun & Clarke, 2006). Equally important, it fits the data characteristics in this study aimed at deciphering students' cognitive engagement to English language learning activities in an ERT environment.

More technically, the analysis was performed in a number of stages. To begin with, *familiarising with the data* was the initial stage functioning to engage the researchers with the collected data intensively. Then, *generating initial codes* focused on facilitating the researchers in constructing the initial codes as the manifestation of a primary data analytical procedure. Moreover, *searching for themes* accentuated on organizing the data into particular themes (s). Also, *reviewing themes* was carried out to evaluate the themes either fit the research question (s) or not. Additionally, *defining and naming themes* refers to the process of labeling and cultivating the themes to be clear-cut and meet the research focus. Eventually, *producing the report* refers to the process of documenting the emergent themes into an investigative report (Braun & Clarke, 2006). With these in mind, the data can be probed as holistic as possible to have a constant characteristic of them.

3. Results and Discussion

3.1. Deploying metacognitive language learning strategies

The students' cognitive engagement while online English language learning during emergency remote teaching is denoted by their efforts to deploy metacognitive strategies. For instance, R # 01 initially faced challenges to learn in an online system, such as an inability to focus on the teachers'

explanations and incapacity of understanding contents of conveyed teaching materials effectively. Against this background, she adjusted her learning strategy to solve such challenges, such as reading more and note-taking (e.g. "This pandemic condition makes it hard for me to concentrate during the online learning class, and it affects my understanding of the content, so I adjust the way I learn the content by reading more and noting to reinforce my understanding of the contents."). Similarly, R # 02 resolved his learning challenges by discussing them with his classmates. This was to ensure that his comprehension of the learned materials is on the track. Additionally, he strengthened his understanding by exploring other viewpoints of the teaching materials from assorted resources, either printed (e.g. notes, books, journals, etc.) or online platforms (e.g. Websites, blogs, internet-based videos, etc.).

Excerpt 1

R # 01: "This pandemic condition makes it hard for me to concentrate during the online learning class, and it affects my understanding of the content, so **I adjust the way I learn the content** by reading more and noting to reinforce my understanding of the content."

R # 02: "I'm **referring to my mates**, to make sure I understand the content. I am also **exploring the topic** through every means of learning, such as googling, reading posts, and making notes."

R # 03: "During the pandemic learning situation, I attempt **to integrate different pieces of knowledge** from the course material in new ways while I study online, for example, **drawing a mind map and coloring it**."

(Interview transcript, Respondent # 01, # 02, and # 03, translated by the author)

In the same way, R #03 attempted to integrate miscellaneous knowledge which she grasped through creating a mind map. By doing so, every piece of knowledge can be reconstructed into more comprehensible input of language learning. Bidabadi and Yamat (2013) remark that meta-cognitive strategies enable students to actualize their awareness of thinking and learning. More specifically, these strategies elaborate on what they are thinking, how they are thinking, why they are thinking like that, and what they are thinking in such a way. This is also relevant to the notion of Gagne (1977) elucidating that these strategies belong to an internal process, namely the learning process of control. Hence, metacognitive strategies employment can be considered as an obvious indicator of how students engaged cognitively in online learning activities in emergency remote teaching. Shortly, these strategies bring them to regulate and direct their learning processes to accomplish their desired learning goals (Macaro 2001; O'Malley & Chamot 1990; Peterson 2001; Vandergrift, 1997).

3.2. Possessing self-regulated learning

The students illustrated that they have self-regulated learning (hereafter, SRL) to habituate themselves with online learning activities in emergency remote teaching. For instance, R # 01 initially perceived that her learning outcomes were not attained ideally as it was so. As a result, she analyzed her strengths and weaknesses in his learning progress and outcomes after engaging in online learning activities. This awareness reflected that she possessed good self-regulated" learning since she was able to evaluate her learning competencies and performances. More technically, this is the representation of her academic identity concerning her learning engagement and personal goals (Hood, Littlejohn & Milligan, 2015; Wong, Baars, Davis, van Der Zee, Houben & Paas, 2019; Mehdiyev, 2020).

Excerpt 2

R # 01: "Amid a pandemic, I often worry about my learning progress and how I understand the content, so **I analyze my weaknesses** and **devise my learning strategy** to achieve my knowledge."

R # 02: "I **compile my explanations in my own words and make notes** to help me understand the key concepts I've learned in my online pandemic learning class."

R # 03: "This pandemic situation makes me anxious, so I have to **work to achieve my learning objective**. When I **feel satisfied** with my learning progress, I **reward myself** by spending my time watching my favorite Korean movie. It makes me feel good about it."

(Interview transcript, Respondent # 01, # 02, and # 03, translated by the author)

Another evidence is documented in R # 02 stipulated that she made notes of the teachers' explanations of teaching materials. At the same time, she conceptualized what she has noted into her self-created key concepts. This was performed as a strategy for her to keep engaging in online learning activities. Furthermore, R # 03 acknowledged that the COVID-19 pandemic made her anxious to learn. In this case, she was not accustomed to learning in an online mode due to the different nuances of learning activities and reaching learning objectives compared to face-to-face ones. Fortunately, to overcome her anxiety, she tried to relax by rewarding her attainments, watching Korean movies, and showing self-efficacy. Zimmerman (1989) and Zimmerman & Campillo (2003) contend that SRL occurs in a triadic and cyclical pattern where self-efficacy perceptions and environmental (e.g. teachers' feedback) and behavioral events (e.g. accurate problem solving) are interconnected.

3.3. Designating English language learning motivation

Students demonstrated their high motivation when learning English in emergency remote teaching. As a matter of fact, R # 01 felt curious about what she would like to carry out before joining online learning activities. This curiosity motivated her to prepare psychological and material aspects for reaching optimal learning outcomes. With this well-preparedness, she believed that online learning activities would not be a barrier for her to learn English.

Excerpt 3

R # 01: "I'm **curious** about what I want to do before I begin to pursue online learning."

R # 02: "As a result of the current pandemic learning situation, **I am committed to being more diligent, consistent, and creative** to enhance my understanding of the material presented, as I cannot rely solely on the online learning process."

(Interview transcript, Respondent # 01 and # 02, translated by the author)

Besides, R # 02 committed to himself to be more diligent, consistent, and creative when participating in online learning activities. In other words, he showcased his determination to learn English better even though in a pandemic situation. This is reinforced by the fact exposing that he should be able to improve his comprehension of the presented teaching materials. Further, R # 02 argued that he should be more creative and autonomous while learning since depending solely on online learning processes restricted him to obtain fuller understanding and achieve more effective learning outcomes. Dörnyei & Al- Hoorie (2017) claims that motivation offers students the fundamental stimulus to start L2 learning and driving force to uphold vivid learning practices. Given this fact, adequate motivation is required to attain the long-term goals of language pedagogy.

Conversely, motivation tends to emphasize learning behavior rather than learning achievements (Dörnyei, 2001). Hence, accentuating the students' learning behavior, their personalities, and other social dimensions remain crucial (Dörnyei & Al-Hoorie, 2017).

3.4. Showcasing critical thinking as a manifestation of students' cognitive engagement

Critical thinking is a salient feature while students learned during emergency remote teaching. As an example, R # 01 argued that she attempted to analyze the situation of online learning processes during the COVID-19 pandemic. Besides, she associated and compared the analysis results to her perceptions (e.g. "I analyze the situation of the online learning process during the pandemic and try to define the purpose of the material presented based on my perception."). Another fact is showcased by R # 02 thinking critically on the contents of teaching materials. In particular, he realized that he should be able to learn beyond the reading activities as a common classroom activity. He should analyze and evaluate the teaching materials and position themselves towards the issues represented in such teaching materials (e.g. "I try to think through the subject matters and decide what I should learn from them, instead of just reading them."). Moreover, this critical thinking generates her awareness of her strengths and weaknesses while engaging in online learning activities. With this in mind, learning is not framed as a passive pedagogical activity requiring students to only receive delivered teaching materials. It is a complex thinking process leading them to have higher-order thinking skills to attain the expected learning outcomes (Almeida & Franco, 2011; Caroll, 2005; Halpern, 2006; Sternberg, 1999; Andriani & Abdullah, 2017).

Excerpt 4

R # 01: "I **analyze the situation** of the online learning process during the pandemic and try to **define the purpose** of the material presented based on my perception."

R # 02: "I try to **think through the subject matters** and **decide what I should learn** from them, instead of just reading them. It makes me feel secure since I realized the limitation of the pandemic online learning situation."

R # 03: "I **examine the learning material** and **interpret it by connecting it to my experience**. I **keep asking myself** about my understanding of the content."

R # 04: "During the pandemic online learning process, I **focus entirely on what I've learned and what I haven't understood**."

(Interview transcript, Respondent # 01, # 02, # 03,and # 04 translated by the author)

Another evidence indicated that one of the students (R # 03) had a typical language learning strategy, namely examining teaching materials, interpreting what has been examined, and connecting such interpretation to a more logical and contextual learning situation (e.g. "I **examine the learning material** and **interpret it** by connecting it to my experience."). In other words, R # 03 performed critical thinking-based learning activities to digest the delivered teaching materials. Also, she reflected on what she learned in each meeting. She realized that to consistently understand teaching materials, she should be able to reflect on what she learned. This is categorized as a reflective practice in which it enables her to learn through and from experiences, evidence-based observations, and critical incidents exploration (Akbari, 2007; Farrell, 2019; Arslan, 2019). In a similar vein, R # 04 asserted that he put a heavy emphasis on what he has understood and what he has not from online learning activities undertaken during COVID-19 pandemics. As an example, he affirmed, "During the pandemic online learning process, I **focus entirely on what I've learned and what I haven't understood**." Cirocki

and Farrell (2017) maintain that the primary notions of reflective practice to practice the theories, enhance teaching and learning practices, and cultivate professionalism through experience-based learning activities. In short, students disclosed their cognitive engagement by thinking critically and reflectively.

Additionally, critical thinking is regarded as a multidimensional cognitive framework encompassing deductive and inductive reasoning, creativity, and problem-solving skills (Linn, 2000; Philley, 2005). This proves that students' learning activities should not be designed to remember and understand teaching materials but also encourage them to analyze, apply, evaluate and create (Karthwohl & Anderson, 2002). However, critical thinking should not be the decisive goal in education, notably language education. Indeed, critical pedagogy (CP) is an ideal educational objective to raise students' awareness about social, cultural, and ideological practices implicitly occurred in language education (Freire, 1993; Cummins, 1996; Emilia, 2005; Mambu, 2010).

3.5. Connecting teaching materials to the students' daily life

Connecting teaching materials to their daily life is one of the students' cognitive engagement represented during emergency remote teaching. In this case, R # 01 argued that he encountered obstacles while comprehending the teaching materials in an online platform. To solve the problem, he referred to his previous knowledge. Also, he created a mind mapping to support him in referring to his prior knowledge. More specific evidence is displayed subsequently.

Excerpt 5

R # 01: "When I have difficulty in understanding the material provided during a pandemic online learning situation, I **refer to my previous knowledge**. Besides, I **draw a mind-mapping** if this is necessary."

R # 02: "In a pandemic online learning scenario, I always **link the content of the material to my everyday life**. It's going to be easier for me to understand."

R # 03: "As I study online, I **figure out how my experience of the real world might be helpful to my understanding of the material**."

(Interview transcript, Respondent # 01, # 02, and # 03, translated by the author)

Another student (R # 02) pointed out that she always correlated the teaching materials with her daily activities. She added that such an activity assisted her to understand the given teaching materials (e.g. "I always **link the content of the material to my everyday life**.")**.** In a similar vein, R # 03 maintained that linking teaching materials to her experiences and the real world enables her to invigorate the process of comprehending them. Theoretically, these phenomena are related to connectivism (Siemens, 2004). Further, Siemens (2004) elucidates that connectivism refers to the notion of learning strategy viewing how someone can construct the ideas, respect the differences from various viewpoints, internalize lifelong learning, establish relationships, build interdisciplinary relations, seek updating information and take a risk. This concept facilitates students to actively engage in a particular situation and environment (Sfard, 1998; Kop & Hill, 2008). Concerning online learning pedagogy, connectivism support students to engage in learning activities in which teachers, classmates, and course contents were organized through certain Learning Management System (LMS), such as E-learning, Canvas, Edmodo, Google classroom, etc. (Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010).

4. Conclusions

The present study focuses on deciphering students' cognitive engagement to English language learning activities in an Emergency Remote Teaching environment. The major findings illustrate that students engaged cognitively in miscellaneous typical learning performances. These are (1) deploying metacognitive language learning strategies, (2) possessing self-regulated learning, (3) designating English language learning motivation, (4) showcasing critical thinking as a manifestation of students' cognitive engagement, and (5) connecting teaching materials to the students' daily life. Grounded in these findings, this study offers empirical and practical contributions to English language teaching during the COVID-19 pandemic. Practically, it draws how English language teaching practices were conducted in the Emergency Remote Teaching (ERT) context. Additionally, it outlines how students' cognitive engagement contributes to the success of online learning programs. Empirically, the current study extends the investigative attempts accentuating English language teaching practices during a pandemic-stricken period and massive and sudden migration of conventional to digital teaching and learning orientations. Above all, the current study highlights a rush paradigmatic shift of English language pedagogy from face-to-face to virtual classroom activities affecting the teachers' readiness, time and classroom management, quality control of language learning, teaching methods, and technological pedagogical content knowledge (TPACK).

Even though this study provides several influential contributions, it demonstrates several limitations, such as the scope of scrutiny, data analysis, and participant's perspectives. Initially, the investigative scope of this study only encompassed the students' cognitive engagement. It is necessary to probe other types of students' engagement while English language learning, such as behavioral and emotional engagements. Then, the data were descriptively analyzed and thematically categorized. Future studies are expected to utilize more exploratory or critical perspectives of analysis (e.g. phenomenology, narrative analysis, critical discourse analysis, or multimodal discourse analysis). Eventually, participants' perspectives were situated from a single perspective, namely the teacher's. It is suggested to embrace a wider perspective of the participants (e.g. students, parents, or policymakers) to reach a more comprehensive viewpoint on the students' engagement in an Emergency Remote Teaching (ERT) situation.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in the publication of this paper.

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