Applications of CALL Theory in ESL and EFL Environments

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Chapter 10
A CALL–Mediated Course to Enhance EFL Pre–Service Teachers' Engagement

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ABSTRACT

It is important for students to be engaged in any given course. For EFL pre-service teachers, being engaged in a course is essential because they can benefit linguistically, cognitively, and pedagogically. The present chapter presents a CALL-mediated course that was able to enhance EFL pre-service teachers' engagement by using Edmodo as its learning platform. Also, this study explores the contributing factors that a CALL-mediated course has towards their engagement. Three EFL pre-service teachers agreed to voluntarily participate in this exploratory study. Through in-depth interviews, they described their engagement and factors affecting their participation. The findings reveal that the EFL pre-service teachers were highly encouraged and inspired to utilize Edmodo and adopt the activities designed for the course. Obstacles and challenges encountered by EFL pre-service teachers are also discussed.

INTRODUCTION

In light of student-centered learning, engagement is believed to have a significant role to the success of students' learning as it is closely related to students' achievement, attention, retention, motivation, and instructional success (Beer, Clark, & Jones, 2010). When students invest their time, effort, and energy to their own learning, they will likely be more successful in learning than those who do not. For this reason, many university administrators devote a great amount of time and money to design an active, student-centered teaching and learning environment (Laird, Shoup, & Kuh, 2005) that will enhance student engagement by choosing suitable programs, implementing appropriate teaching methods, and providing engaging learning aids.

Many EFL teachers struggle to maintain student engagement with their lessons, yet they must continue seeking the best instructional strategies that support student engagement in learning both within and beyond the classroom. Thus, improving student engagement is a significant challenge. The importance of student engagement is addressed by Kuh (2003; 2009) and Taylor and Parsons (2011). They state that student engagement can improve students' learning, lead to student success, and promote life-long learning. It is imperative that student engagement is maintained and improved. One of the examples of these actions is to make use of CALL in the teaching-learning process.

In the development of EFL learning, CALL has not only been referred to as computer-mediated language learning. In addition, this area has also developed to a broader inclusion of technological hardware (Bulger, Mayer, Almeroth, & Blau, 2008), software (Zaini & Mazdayasna, 2015), digital devices, and the Internet (Alabbad, Gitsaki, & White, 2015; Nakamaru, 2012). While many educational institutions around the world have offered fully online courses—including EFL courses—to their students, many others have made efforts to integrate CALL into their face-to-face class meetings. This chapter uses a CALL-mediated course, which utilized an online learning platform to encourage student participation inside and outside the class. Online learning platforms are believed to be able to help EFL teachers enhance their student engagement by reshaping the way they teach (Barkley, 2010; Jarvis, 2005) Not only do online learning platforms help EFL students reinvent themselves, it also enables them to work collaboratively with their friends and solve their problems independently with little help from their teachers (Morgan, 2008).

For EFL pre-service teachers, being able to engage in a CALL-mediated course might be useful for the future when they have to teach EFL students in a similar course. In addition, actively participating in such a course will enable EFL pre-service teachers to make sense of problems that might come up during the teaching learning process and find possible solutions. Using EFL pre-service teachers' voices, the current chapter seeks to answer the following questions: (1) What are the activities in the CALL-mediated course that enhance EFL pre-service teachers' engagement? and (2) What are the contributing factors that affect EFL pre-service teachers' engagement in using Edmodo?

EFL PRE-SERVICE TEACHERS IN INDONESIAN CONTEXTS

There has been a high demand for EFL teachers in Indonesia because English is the main foreign language that has been taught in Indonesia for decades. Many EFL teachers in Indonesia have started to shift their paradigm from traditional views of English language teaching to the economic value of English (Manara, 2014). By this, Manara (2014) means that Indonesian EFL teachers have thought about the economic benefits that students can obtain from learning English in today's globalized Indonesia. Manara's research implies that integrating CALL in English classes can be one of the solutions to improve the role of English in Indonesia.

EFL pre-service teachers are typically prepared to teach in school contexts, both private and public. A typical EFL class in Indonesia may contain 35-40 students, which is considered quite challenging for many EFL teachers to accommodate. As a result, promoting meaningful interaction among EFL students that can lead to academic engagement is quite a challenge (Brooks & Thurston, 2010). Unfortunately, most EFL pre-service teachers in Indonesia receive minimal exposure to engaging language classroom activities when they were still at school. As Masduqi (2014) asserts, Indonesian students do not generally expect interactive activities in the classroom due to their cultural philosophies "to obey and to follow"

(p. 391). Furthermore, EFL teachers in Indonesia generally take up more teacher talk time than give opportunities to students to be engaged by interacting with their peers and teachers. As a result, many EFL pre-service teachers in Indonesia have very limited examples of activities that they can use to make their students more engaged.

With regard to this particular issue, one way to prepare EFL pre-service teachers to deal with the potential problems they will likely encounter in the future is by providing them with engaging experiences in a CALL-mediated course. Online learning platforms provide opportunities for EFL pre-service teachers to have meaningful interaction with their peers and teachers. At the same time, teachers can distribute equal attention among the students. This study describes the activities that were conducted in an EFL class enhanced student engagement by using Edmodo as an online learning platform in a language class. This chapter also presents EFL pre-service teachers' perspectives on contributing factors that affected their engagement of using an online learning platform in the stated EFL class. With the practical knowledge that EFL pre-service teachers obtained from the class it is expected they would be able to apply it to engage their students.

THEORETICAL FRAMEWORK

The implementation of CALL-mediated courses to enhance student engagement has been supported by a number of critical learning theories. Educational theory relevant to this investigation includes the Sociocultural theory of learning. In the Sociocultural theory, as advocated by Vygotsky (1978), social interactions play an influential role in the development of engagement constructs. This infers that knowledge is obtained from interacting and communicating with other people. Vygotsky (1978) believes that tools play an important role for students to develop effective correlation between their cognition and their learning environment, which includes peers and other people. In short, a CALL-mediated course is a tool that can facilitate EFL pre-service teachers' engagement by providing opportunities to have meaningful academic interactions with others and their own cognition. In addition, attention, as a form of engagement, is "an essential determinant of the success or failure of any practical operation" (Vygotysky, 1978 p. 35). This statement suggests that enhancing student engagement needs to be done to support students' success in learning.

Based on the framework, Edmodo mediates classroom instructions to engage EFL pre-service teachers. Edmodo is "a free and secure learning platform" specially designed for teachers, students, and parents to communicate and work collaboratively (Majid, 2011, as cited in Al-Khatiri, 2015, p. 189). Edmodo provides familiar navigation and user-friendly features, as well as a safe environment for both teachers and students to interact and collaborate. Edmodo requires a unique code to sign up for every class and school; thus, it prevents outsiders from joining the network. Additionally, Edmodo offers a free application that can be accessed anytime and anywhere through smart phones. Edmodo is believed to facilitate interaction between EFL pre-service teachers with their teachers and their peers both inside and outside the classroom. Edmodo is also effective for engaging students with meaningful activities that will eventually foster students' target language use and communication. The sociocultural theory accommodates the authors by permitting the close and systematic investigation of EFL pre-service teachers' experiences, attitudes, and perspectives on the utilization of online learning platforms to enhance their engagement in language learning.

EFL PRE-SERVICE TEACHER ENGAGEMENT AND CALL

A number of scholars have defined the concept of *engagement* in general (Barkley, 2010; Bulger et al., 2008; Krause, 2005; Taylor & Parsons, 2011). Chen, Gonyea, and Kuh (2008), for instance, define engagement as a combination of time on task and willingness, effort, and motivation that EFL pre-service teachers dedicate to participate in class activities to achieve desired outcomes, including academic success and personal qualities (e.g., being a lifelong learner). In general, student engagement can typically be seen from their behavior, such as paying full attention to the teacher and actively participating in a class discussion. Although the level of engagement may be different from one student to another, meaningful learning is believed to take place when the students are highly engaged with the lesson.

Kuh (2003) argues that engagement may not take place although they have plenty of resources and/ or are involved in meaningful activities. But, more likely than not, students will learn more when they have a carefully designed variety of classroom activities to participate. These activities have to enable students to do active learning (Barkley, 2010), think about their learning in a variety of context (Kuh, 2009), work collaboratively with their peers and teachers (Jarvis, 2005; Taylor & Parsons, 2011), and connect their learning between within the classroom and outside the classroom (Dunleavy & Milton, 2010). However, creating engagement-enhancing activities can be quite challenging. Kuh (2009) asserts these activities should be able to prepare EFL pre-service teachers for life after they graduate and become EFL teachers.

While there has been an increasing number of research studies on engagement and CALL in various contexts, research that correlates EFL pre-service teachers and engagement—in Indonesian contexts specifically—has been extremely scant. In university settings, Alabbad et al. (2015) argue that CALL could enhance student engagement by maintaining their participation in and outside the classroom. The engagement can be seen in students using web-based resources to fulfill the tasks that they typically do outside the class time. In their research, Alabbad et al. (2015) designed a CALL-mediated course in an EFL context, and their study shows that not only had students' motivation improved, but their attitude toward the EFL course had also been positively changed.

Prihatin (2012) conducted research in an Indonesian university and emphasizes the importance of teaching methods in a CALL-mediated class that can encourage student engagement in language learning. Using Communicative Language Teaching, Engagement, and Learner-centered Theories as his research framework, Prihatin (2012) investigated university teachers' perception in integrating technology into EFL classes and the implementation of CALL-mediated course in an EFL university context. After collecting data through in-depth interviews, class observations, and teaching instrument reviews from two EFL university teachers, Prihatin (2012) revealed that teaching strategies which encouraged students to have meaningful interaction with each other using English were essential. The strategies manifested in the CALL-mediated course in that research were role play, grammar practices, games, and other activities that required students to work collaboratively. Despite the similarities between the Prihatin study and the current chapter, for example the research context, Prihatin (2012) does not address students' perception towards the CALL-mediated course.

Other than university contexts in Indonesia, CALL has also evidently been able to improve younger students' motivation in addtional international contexts as shown by Boutonglang and Flores (2011) and Talebinzhad and Abarghoui (2013). Both studies employed computer-assisted activities in school settings to teach English skills and have shown positive influence toward English learning. However, utilizing technology-mediated instruction has not always yielded positive results on student engagement

to English language learners. Nakamaru's (2012) study, for instance, indicates that activities designed on CALL-based activities (i.e., web-based activities) in higher education contexts did not necessarily increase student engagement. The low engagement was shown from the minimal student participation to complete required tasks outside the class. Furthermore, improving student engagement using computer-mediated instruction is not without its challenges. Lack of facilities, off-campus computer and Internet availability, as well as teachers' pedagogical knowledge are some of the obstacles that were found (Dashtestani, 2014; Dunleavy & Milton, 2010; Prihatin, 2012).

CALL IN EFL LEARNING

Student engagement will likely motivate students put more effort into learning, which will result in better academic achievement and important components required to succeed academically. In many EFL contexts, CALL has been used as a means to improve students' English proficiency. CALL has positively influenced students' grammar accuracy (Salmasi, Bonyandi & Alavinia, 2015; Pirahsteh, 2014), writing skills (Shafiee, Koosha, & Afghari, 2015; Zaini & Mazdayasna, 2015), attitude in language learning (Allabbad et al., 2015), and engagement in language learning (Bautonglang & Flores, 2011; Brooks & Thurston, 2010; Bulger et al., 2008; Nakamaru, 2012).

Now that this discussion has specified a number of key issues concerning CALL in general and specifically in Indonesia, it now turns to the key CALL element in the current study, the online learning platform. An increasing number of EFL teachers in Indonesia use an online learning platform to engage their students. Among the numerous learning platforms available online, a Learning Management System (LMS) is the most proliferate and broadly used. Some LMSs that are purposively created for pedagogy are Moodle, Blackboard, WikiSpace, Google Classroom, Schoology, and Edmodo. Many language teachers also incorporate social networks and microblogging such as Twitter, Facebook, and various blogging platforms to support student interaction and open a greater chance to have a more active learning. In the authors' opinion, Edmodo is considered an educational tool that can facilitate the learning needs in CALL-mediated courses in a more private and secure platform. Given contemporary concerns for Internet security regarding the participants' information and identity, both safety and security are critical.

This study differs from other studies on student engagement in many ways. First of all, this study includes participation of EFL pre-service teachers who shared their experiences in a CALL-mediated course with future EFL students. Therefore, their perspectives, feelings, and comments are valuable to explore. In addition, EFL pre-service teachers' opinions can be used as a course evaluation. Moreover, one of the authors was the teacher-observer for this study. Thus, she was aware of each student's level of engagement.

METHODOLOGY

To explore and deeply understand what activities enhance student engagement and what factors contribute to EFL pre-service teachers' engagement in a CALL-mediated course, the authors employed a descriptive and interpretative qualitative research method. This method allowed the authors to listen to the students' voices, so as to understand their learning experience.

Setting

This study was conducted at an EFL teacher training institution in Indonesia. The institution strongly encourages the integration of CALL in its teaching learning process. While CALL is implemented to some degree in almost all courses offered, several courses are specifically designed as CALL-mediated in order to fully prepare EFL pre-service teachers with hands-on experiences. The course, from which the study was conducted, provided practical knowledge and skills in using the specific web-based application, Edmodo, and consisted of 16 weeks. The materials for the CALL-mediated course were aligned with the Indonesian high school English materials because at the time of data collection, the EFL pre-service teachers were conducting teaching practicum in high schools during the same semester. Thus, the EFL pre-service teachers could apply materials, pedagogical knowledge, and experiences obtained from the course whenever necessary in different settings. The course was a blend between face-to-face meetings and online sessions, in which Edmodo was used. Throughout the course, EFL pre-service teachers were engaged in various activities such as actively participating in teacher-led discussions, interacting with their peers by giving comments on their posts, and other classroom activities. All activities were conducted in English. Out of the 16 meetings, three meetings were administered in full online mode.

Participants

In order to obtain a better understanding of the phenomenon, three participants were non-randomly and purposively selected (Creswell, 2012) because they were considered to have actively participated throughout the course, both in and outside the class. These participants were selected through a naturalistic setting (the classroom and Edmodo) since one of the authors was the teacher of the CALL-mediated course. In addition, the participants' involvement in this study was voluntary. The 22 and 23 year-old junior participants verbally agreed to participate and were made aware of their rights as participants and that no benefits were provided for their participation. All participants proceeded with the interviews, which were conducted on campus in fall 2016.

Data Collection Procedure

The data were collected through in-depth interviews. The interviews were semi-structured with open-ended questions, which allowed the participants to answer follow-up questions (Cohen, Manion, & Morrison, 2011). Each participant principally received eight questions (see Appendix); however, each of them eventually answered a different number of questions depending on their answers. At the time of the data collection, the participants had taught EFL in elementary and middle school since they were freshmen as part of the degree requirement. Since the participants and authors were multilingual, the in-depth interviews used a combination of several languages spoken by both sides.

Member checking was conducted to triangulate the interview data and the data obtained from the classroom and Edmodo, and no participants altered the data. Wiwik, Alia, and Okie—pseudonyms used in the study, were two female and male participants respectively.

FINDINGS

During the interviews, the EFL pre-service teachers showed that in general, they were highly enthusiastic about using Edmodo. They described the activities and expressed their feelings about the activities. Two major findings emerged from the interview data and each finding had several different themes: (1) engagement enhancing activities, which consists of interaction, self-initiated exploration, and language learning and (2) factors influencing student engagement, which comprises students' and teachers' roles, as well as the institution's role.

Engagement Enhancing Activities

Interaction

One of the activities that had encouraged the EFL pre-service teachers to be highly engaged was the collaborative work. This activity allowed them to maintain interactions between their friends and teachers. Alia even mentioned that the interaction could have been set up among her friends, teacher, and parents, although this particular course is exclusively set up for students and teachers. Activities that required them to work as a group also enabled them to share information with their friends, including giving suggestions to the teacher and responding to friends' questions. In short, although they did not always physically meet, they still could interact and discuss the topics under the teacher's supervision. The problem that the participants faced, in the light of maintaining the interaction, was that they were not able to chat privately with the teacher. No features within Edmodo could accommodate this need. So, if a student needed to talk individually with the teacher, they would have to meet the teacher in person or contact the teacher via email or phone.

Okie and Alia were able to maintain their engagement when using Edmodo because they had smartphones that allowed them to download the Edmodo application from the Google Play Store. The application would send them notifications whenever an activity occurred in Edmodo so that they could contribute in the discussion. Wiwik, on the other hand, did not have the application on her smartphone, so she relied on her friends to let her know through other social media which were commonly used among them.

The three participants mentioned that the topics discussed, which were posted mostly by the teachers, were one of the things that made them more engaged. Students were able to relate the topics with their every day life. That was the main reason why they would maintain their interaction. Alia specifically indicated that she sometimes raised a new issue within the discussed topic and was able to engage her friends with a discussion of the new issue. It was also found that Wiwik and Okie used a formal tone when interacting using Edmodo, even when they interacted with their peers. When asked about the reasons for the formality, they said that in their perception, because Edmodo was a learning platform, they were encouraged to use a higher level of formality during the discussions, especially when they were aware that they were monitored by the teacher. Thus, random conversation in English or in their native languages had never taken place in Edmodo.

Several indicators to show that students were engaged were the level of interaction and time invested for the course (Barkley, 2010; Dunleavy & Milton, 2010; Jarvis, 2005; Taylor & Parson, 2011). This study is also in line with Brooks and Thurston (2010) who stated that collaborative learning, especially small group and one-on-one interaction, is a powerful tool to engage students with the course. The participants of this study, unfortunately, did not specify which collaborative learning made them engaged the most and the least. With regard to the Sociocultural theory (Vygotsky, 1978), the EFL pre-service teachers learned how to find and use the appropriate tone—in this case, the formality of the language, when they had to communicate in public. The interaction, to some extent, had developed the EFL pre-service teachers' maturation which can be a bridge for their later individual development (Vygotsky, 1978).

Self-Initiated Exploration

Evidently, working with Edmodo had raised the participants' excitement, which, in turn, led to their improved engagement. This excitement led the EFL pre-service teachers to do some self-initiated explorations when using Edmodo. The participants explained that they experimented using teacher and student accounts, services that are provided by Edmodo, and that they had found some interesting features about which they were eager to learn. While the student account did not offer as many features as the teacher account, it still provided the EFL pre-service teachers with opportunities to interact with their peers, or in other words, giving comments to each other's posts. Also, student accounts still gave them some privacy in terms of submitting assignments. Okie asserted that, unlike other learning platforms, only the particular individual who submitted an assignment and that student's teacher were able to open the assignment that the student uploaded, although everybody could see the submission. To him, this feature was a new and valuable learning experience.

The teacher account, on the other hand, allowed the EFL pre-service teachers to be creative because it offered a variety of features (e.g., giving badges as rewards, uploading teaching materials in the library, and giving feedback). As a matter of fact, because of Edmodo, Alia was so inspired that she started her business on giving online English lessons, and she had a number of students. She did not use Edmodo in her business because she was concerned that her students might not be familiar with it.

The EFL pre-service teachers also did an exploration on the features provided in Edmodo, such as giving rewards. They were inspired by the activity the teacher designed when she gave away badges to students who did well on assignments. As the participants were future EFL teachers, they stated that the creativity Edmodo offered when they signed in as a teacher was exciting. The participants mentioned several activities that they would do with their students, such as giving rewards, posting some important links, uploading teaching materials, and teaching their students about being disciplined. Okie even compared Edmodo with other learning platforms and stated that he preferred Edmodo. This finding corresponds with Kuh (2003; 2009) and Taylor and Parson (2011) who asserted that student engagement can improve students' learning, lead to student success, and promote life-long learning. Results from this study also demonstrate that the EFL pre-service teachers did some exploration on their own initiative, which means that they continually learned and were more engaged with the course. This finding aligns with Sociocultural learning theory linked to how engagement allows students to apply "not only those objects that lie near at hand" (p. 26), but also other features that can be used to solve problems and plan for the future. The EFL pre-service teachers in this study explored Edmodo on their own initiative for task solutions and future actions, such as planning English courses for their students like Alia.

Language Learning

The interviews showed that the language skill that was mainly developed was writing, which took place when the students provided comments in response to their friends' posts. Writing comments in English apparently improved the participants' linguistic awareness. This is evident because the EFL pre-service teachers would check their comments, in terms of grammar, lexicon, and spelling.

I always wrote my comments on a word document first before I posted them online in Edmodo. I also checked my dictionary more often to make sure that everything was okay. I would feel embarrassed if I made mistakes. Now it becomes my habit. So, it is good for me. (Interview data from Alia, 2016)

For Wiwik, writing her comment, instead of verbally expressing her response, had given her more time to think about what she wanted to comment. This was unlike the traditional class mode that required her to think faster to express her ideas and was usually conveyed in a more casual tone. Not only when writing comments, the EFL pre-service teachers were also required to write assignments in English and post them in Edmodo. In terms of developing other language skills, the participants indicated that the CALL-mediated course had not facilitated development of their speaking skills because they had to interact mainly in writing. Meanwhile, they could, to some extent, develop their reading and listening skills from the articles and videos that the teacher posted in the Edmodo library. This may be due to the fact that video or voice chat was not featured in Edmodo; thus, speaking skills received minimal attention in the CALL-mediated course.

This particular finding suggests that the EFL pre-service teachers invested more time and energy to the course, because they took extra effort to properly contribute in the written discussion. Fredericks, Blumfeld, and Paris (2004) contend that the desire to perform beyond the requirements, to learn more, and to master language skills means that students actually become cognitively engaged. A plethora of research in the area of EFL (Allabbad et al., 2015; Pirahsteh, 2014; Salmasi et al., 2015; Shafiee et al., 2015; Zaini & Mazdayasna, 2015) as stated earlier in the chapter has shown that CALL has positive contributions towards students' linguistic ability. Vygotsky's (1978) Sociocultural learning theory suggests that learning is a social process and that language plays a major role in students' cognitive development. In this study, the EFL pre-service teachers' linguistic ability, especially their writing skills, was developed through the interactions in which they were involved. These linguistic skills can be useful for the EFL pre-service teachers in the future when they have to use them without the supervision from the teacher.

Factors Influencing Student Engagement

Students' and Teachers' Roles

One of the important aspects that made the EFL pre-service teachers invest more time and energy when using Edmodo was the fact that they had to be punctual when completing the assignments. Late submission was not tolerable because they had to upload their assignments online, as stated by the three participants. In addition, Wiwik asserted that she did not want to lose face for submitting late because, in her opinion, Edmodo was a public place. Similar to Wiwik, Alia confirmed that the teacher's absence encouraged her to be more independent during the course. For that reason, she had to understand her own way of learning and manage her time wisely so she could meet the class expectations. This particular

finding implies that this CALL-mediated course encouraged students to be autonomous by employing metacognitive and reflective strategies towards their own learning. The most important role that the EFL pre-service teachers played in this study was as the decision maker of their own learning.

In this study, the teacher still held a major role to improve engagement. The three participants asserted that although they considered themselves to be active participants, they would not post anything if the teacher did not initiate a discussion. It was the teacher who had to upload the learning materials for students. According to the participants, some students did not give any comments if the teacher had not required them to respond on some posts. In addition, the EFL pre-service teachers were more engaged when the topics discussed were within their area of interest. The data implies that the teacher was responsible for investigating students' interests and meeting students' expectations. In addition to interesting topics, this study also shows that the teacher also need to be able to design activities that can maintain and improve student engagement. Providing rewards to appreciate students evidently had motivated students to maintain their interaction and, in turn, enhance their engagement.

These findings show that although a CALL-based course is able to promote students autonomy (Alabbad et al., 2015), teachers' pedagogical methods also played a significant role toward promoting student engagement (Bulger et al., 2008; Prihatin, 2012). This is especially relevant when the culture in which the EFL environment took place does not encourage students autonomy, in this particular situation, the Indonesian culture (Masduqi, 2014).

The Institution's Role

With regard to student engagement and CALL-mediated course, institutions also play an even bigger role to the students' success in learning. The equipment, such as computer lab or other equipment that can accomodate students' need to do online learning, is imperative. The three participants pointed out that the major challenge they had to face with regard to the CALL-mediated course was poor internet connection. Not only that students found challenges with this particular problem on campus, they also met this problems off-campus. Alia remarked,

It needed a good internet connection for us to work on Edmodo, especially if we want to upload videos or other materials with bigger sizes. Before I had my smartphone, I used to go to an internet cafe at least once a week so I could access Edmodo. (Interview data from Alia, 2016)

Lack of CALL equipment, online facilities, and clear instructions given by the teacher are among the obstacles found in implementing CALL in some EFL environments (Dashtestani, 2014; Sa'd, 2014; Salmasi et al., 2015). CALL equipment may not be a problem in developing countries, but in many EFL contexts, CALL equipment is a massive investment that not all educational institutions can afford. In addition, negative attitude towards the use of CALL can also become problematic in an EFL environment (Sa'd, 2014).

A number of CALL scholars have underscored the need for CALL adoption into pedagogy to enhance student engagement (Kuh, 2009; Laird et al., 2005; Taylor & Parsons, 2011). In accord with these scholars, the current chapter reveals answers to the research questions in support of their assertions. The study shows that a CALL-mediated course can provide a series of engagement enhancing activities through the social process that requires students to have meaningful interaction with each other. Since the

CALL-mediated course was able to improve students' independence and language proficiency, adopting a higher level of CALL integration in more courses might be able to boost these important aspects of learning even faster. The answer to the second research question is related to the degree of teacher guidance as well as students' and institution's initiatives to take the most advantages from a CALL-mediated course. Possibly, institutional policies that encourage the adoption of CALL in all courses would rapidly improve student engagement and independence, which would lead to increased academic success.

The current chapter, however, involved a small number of student-participants, who were considered to be the most active students in the class. This limited selection of research participants might have skewed the results of the study and limit the extent to which the results can be transferrable to other educational settings. Other students might have different perspectives toward the CALL-mediated course. Also, other types of measurements to student engagement, e.g. self-report measures, survey, work sample analysis, time on task, participation rates, student written or verbal self-report reflections, and student self-reporting work (portfolios, products, presentation, student developed projects) can provide different data.

SOLUTIONS AND RECOMMENDATIONS

A CALL-mediated course that used Edmodo was able to enhance student engagement because of the meaningful interactions in which the EFL pre-service teachers participated. One of the most important notes from this study is that teachers play an important role in CALL-mediated courses. First of all, teachers should be able to create an EFL environment that allows students' sociocultural aspects (Vygotsky, 1978) to flourish and be highly engaged through observation, interaction, and collaboration. When students are cognitively, linguistically, and socially engaged, they will likely invest more time and energy, and active learning will more likely occur (Barkley, 2010; Kuh, 2003).

Teachers' encouragement is another point to ponder. This chapter concludes that motivating students to actively participate in the discussion and other class activities has evidently increased EFL pre-service teachers' participations. Teachers' encouragement can manifest in various forms, such as giving badges to those who do well. This encouragement can be used to maintain student engagement. By being a motivator, a teacher can create a learning environment to encourage students to be more engaged with the lesson (Arkorful & Abaidoo, 2014).

Regarding interaction between participants, in a CALL-mediated course the interaction does not necessarily take place in the physical dimension, for example, face-to-face class meetings. In contrast, a virtual class through Edmodo, was used as a place to *meet* and communicate, so that students would not necessarily be completely disconnected from learning (Dunleavy & Milton, 2010). Most of these students can access Edmodo from their smartphones; thus, disconnectivity can be minimized. Further research needs to be carried out to see whether the types of interaction that students and teachers have online and in traditional classes would be different. If yes, in what ways are they different would be of specific interest.

Apart from interaction, student engagement can be enhanced in a CALL-mediated course with a series of meaningful activities that challenge students to perform well academically (Barkley, 2010; Kuh, 2003). The activities should be within students' ability and, naturally, also related to their interests. This current research and other similar studies that show significant impacts of CALL towards EFL students' linguistic and cognitive competence may be due to the fact that the students were highly engaged with the course.

While the CALL-mediated course described in this chapter was able to improve EFL pre-service teachers' autonomy and engagement, it seemingly did not always reduce students' dependence on teachers' resources. This might be influenced by the cultural aspects related to the geographical location in which the study was conducted. At the same time, teachers who design CALL-mediated courses may need to shift some learning responsibilities to students to foster student independence. This being said, student engagement may not work as well if institutional support is absent. Institutions are responsible for providing the technology by having a steady and reliable internet connection.

FUTURE RESEARCH DIRECTIONS

The current chapter focuses on the EFL pre-service teachers' engagement with a CALL-mediated course that employed Edmodo. Future research can be directed to explore whether engagement in a CALL-mediated course would be different from that of a non-CALL-mediated course. Additional research can also examine how far Edmodo can improve EFL pre-service teachers' writing ability as indicated in the findings. With regard to institution's roles, a research study can be conducted on the effectiveness of teacher professional development programs held by university administrators for their teachers when incorporating CALL in their classes. In the case of EFL teacher training institutions, investigating how EFL pre-service teachers implement their knowledge and skills they learned and obtained from a CALL-mediated course during their teaching practicum.

CONCLUSION

One of the strengths of this current chapter is the participants. EFL pre-service teachers are involved in CALL research because they will be able to take away so much from the course. Most importantly, they may apply the skills and knowledge in different settings in the future. The findings of the chapter support findings from previous studies about CALL and EFL environments in which CALL-mediated courses were able to enhance student engagement. However, their engagement is still dependent on the activities designed by the teachers. The implications of the study are that teachers' pedagogical and practical knowledge in CALL-mediated courses have to be strengthened, and educational institutions need to provide training for teachers to utilize online learning and other forms of teaching techniques that involve technology.

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KEY TERMS AND DEFINITIONS

CALL-Mediated Course: A course that uses CALL in the teaching learning process. The class meetings consist of both face-to-face meetings and online.

Edmodo: A free online learning platform that can be used by teachers, students, and parents to have meaningful interaction and work collaboratively.

EFL (English as a Foreign Language) Contexts: Conditions or environment in which English is not used in daily communication. English is commonly used in the class only.

EFL Pre-Service Teachers: College students who are trained to be English teachers in non-English speaking countries. The training is supervised by teacher educators and supervising teachers. They commonly have to do teaching practicum at one point of their degree.

Engagement Enhancing Activities: A set of activities that are designed to improve student engagement.

Online Learning Platform: An integrated set of interactive *online* services that provide trainers, learners, and others involved in education with information, tools and resources to support and enhance educational delivery and management.

Sociocultural Theory: A belief that knowledge is obtained from interacting and communicating with other people in social interactions.

Student Engagement: The level of efforts, willingness, time, and attention that students dedicate during a course, which can be seen from the level of participation in class activities.

Teaching Practicum: Teaching activities that are conducted by pre-service teachers in school settings. They are generally supervised by university teachers and school teachers.

APPENDIX

Interview Questions Used in the Semi-Structured Interviews

1. What activities did you do in this CALL-mediated course?
2. How did you feel about those activities using Edmodo?
3. Can you tell me the features in Edmodo that made you interested in the course?
4. From those activities, which ones did you like most and least? Why?
5. What are the things that encouraged you to participate in this course?
6. What advantages, if any, did you get from this CALL-mediated course?
7. Can you tell me some barriers, if any, that hindered you from participating?
8. How did your participation in this course differ from non CALL-mediated courses?