



**A Study of Using Mobile-Based Dynamic Assessment to Develop
High and Low Proficiency Thai EFL Learners' Oral Accuracy
and Their Perceptions**

Piyaporn Phetsut

**A Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Teaching English
as an International Language
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Thesis Title A Study of Using Mobile-Based Dynamic Assessment to Develop High and Low Proficiency Thai EFL Learners’ Oral Accuracy and Their Perceptions

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ชื่อวิทยานิพนธ์	การศึกษาการใช้รูปแบบ Mobile-Based Dynamic Assessment เพื่อพัฒนาความถูกต้องของการใช้ภาษาในการพูดภาษาอังกฤษในฐานะภาษาต่างประเทศของนักเรียนไทยที่มีทักษะภาษาอังกฤษในระดับสูงและต่ำและการศึกษาการรับรู้ของนักเรียนต่อรูปแบบดังกล่าว
ผู้เขียน	นางสาวปิยภรณ์ เพ็ชรสุทธิ
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ปีการศึกษา	2565

บทคัดย่อ

ปัจจุบันเทคโนโลยีดิจิทัลยังคงเติบโตอย่างรวดเร็ว และมีการประยุกต์ใช้โทรศัพท์มือถือเพื่อการเรียนการสอนในบริบทการสอนภาษาอังกฤษเป็นภาษาต่างประเทศอย่างกว้างขวาง อย่างไรก็ตามการประยุกต์ใช้โทรศัพท์มือถือเพื่อพัฒนาความถูกต้องในการพูดภาษาอังกฤษในบริบทโรงเรียนไทยยังเป็นเรื่องที่ยาก งานวิจัยนี้ใช้รูปแบบ quasi-experimental design เพื่อศึกษาการเรียนรู้ภาษาอังกฤษที่ได้รับความช่วยเหลือผ่านการใช้อุปกรณ์พกพา นำมาผสมผสานกับ Dynamic Assessment หรือ การประเมินแบบไดนามิก เพื่อพิจารณาว่ารูปแบบ Mobile-Based Dynamic Assessment (MDA) ส่งผลต่อความถูกต้องของการใช้ภาษาในการพูดของนักเรียนไทยที่มีระดับความสามารถภาษาอังกฤษที่แตกต่างกันได้ดีเพียงใด ผ่านตัวกลางแอปพลิเคชัน WhatsApp อีกทั้งยังศึกษาการรับรู้ของนักเรียนต่อ MDA ในการพัฒนาความถูกต้องในการพูดของนักเรียน การดำเนินการทดลองแบ่งออกเป็น 3 ส่วน ส่วนแรกผู้วิจัยใช้เครื่องมือ 2 ชนิด ได้แก่ แบบสำรวจการมีโทรศัพท์มือถือพร้อมและแบบทดสอบวัดระดับภาษาอังกฤษ สำหรับการเลือกกลุ่มตัวอย่างการทดลองประกอบด้วยนักเรียน 30 คนจากโรงเรียนมัธยมแห่งหนึ่งในภาคใต้ของประเทศไทยที่มีคุณสมบัติตามจุดประสงค์การทดลองได้ถูกเลือกเป็นกลุ่มตัวอย่าง ส่วนที่ 2 ผู้วิจัยใช้เครื่องมือ 6 ชนิด ได้แก่ คู่มือครู คู่มือนักเรียน แบบทดสอบก่อนเรียนและหลังเรียน แบบฝึกหัดฝึกฝนการพูดสำหรับ 5 สัปดาห์ผ่านแอปพลิเคชัน WhatsApp เพื่อพัฒนาความถูกต้องของการใช้ภาษาในการพูด และส่วนสุดท้ายใช้เครื่องมือ 2 ชนิด ได้แก่ แบบสอบถามและการสัมภาษณ์แบบกึ่งโครงสร้างเพื่อศึกษาการรับรู้ของนักเรียนต่อการใช้ MDA หลังจากการฝึกฝนผ่านรูปแบบ MDA เป็นเวลา 5

สัปดาห์ ผู้วิจัยได้รวบรวมข้อมูลเชิงปริมาณและเชิงคุณภาพเพื่อตรวจสอบพัฒนาการด้านการพูดของนักเรียนและการรับรู้ของนักเรียน โดยใช้แบบทดสอบก่อนและหลังเรียน แบบสอบถาม และการสัมภาษณ์แบบกึ่งโครงสร้างและนำมาวิเคราะห์

ผลการทดสอบเผยให้เห็นมีความแตกต่างอย่างมีนัยสำคัญทางสถิติ ($p = .00$) ระหว่างการทดสอบก่อนและหลังการฝึกฝน โดยใช้ MDA ของนักเรียนภายในกลุ่มเดียวกัน ทว่าเมื่อเปรียบเทียบค่าพัฒนาความถูกต้องของการใช้ภาษาในการพูดระหว่างทั้งสองกลุ่ม (กลุ่มที่มีระดับความสามารถภาษาอังกฤษสูงและต่ำ) ปรากฏว่าไม่มีความแตกต่างอย่างมีนัยสำคัญระหว่างทั้งสองกลุ่ม ($p = .97$) สรุปได้ว่าการแทรกแซงของ MDA สามารถเพิ่มระดับความถูกต้องของการใช้ภาษาในการพูดของนักเรียนไทยที่มีความสามารถทางภาษาอังกฤษทั้งสองกลุ่มได้ในระดับที่เท่า ๆ กัน ไม่มีความแตกต่างกันระหว่างสองกลุ่ม นอกจากนี้ผู้เรียนยังแสดงการรับรู้เชิงบวกต่อ MDA ภายหลังจากได้รับการฝึกฝน ทั้งในด้านแหล่งเรียนรู้ การเสริมแรงจากครู ประสิทธิภาพของ MDA และการพัฒนาความถูกต้องของการใช้ภาษาในการพูดของผู้เรียน ด้วยการรับรู้เชิงบวกและประสิทธิผล MDA เพื่อพัฒนาดังกล่าว การศึกษานี้สามารถให้คำแนะนำเชิงปฏิบัติการที่เป็นประโยชน์เกี่ยวกับการใช้อุปกรณ์พกพาในการสอนภาษาสำหรับนักเรียนไทยอย่างมีประสิทธิภาพ การวิจัยนี้ยังระบุหลักการนำแนวทางดังกล่าวไปใช้งานในการเรียนการสอน รวมถึงเสนอแนะประเด็นการศึกษาแนวทางดังกล่าวในอนาคต

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ABSTRACT

Nowadays, digital technology is still growing and mobile phones are frequently utilized for EFL teaching and learning. However, integrating mobile phone in to improve oral accuracy in Thai school settings is still rare. In this work, a Mobile Assisted Language Learning (MALL) as instructional intervention with dynamic assessment was studied by using a quasi-experimental method. This mixed-method study sought to determine how well the MDA intervention affected the oral accuracy of Thai EFL learners utilizing WhatsApp and investigated students' perception toward the MDA intervention. With the two instruments for choosing the participants, Survey Questionnaire and English Language Level Test, thirty students from a secondary school in southern Thailand were chosen through purposeful sampling and assigned to the low and high English proficiency groups. In addition, six instruments, namely the teacher's handbook, the student's handbook, oral pre-test and oral post-test, five speaking tasks, perception questionnaire, and semi-structured interviews, were applied in this study. In the treatment section, the participants completed five oral tasks through the designed intervention on WhatsApp to develop their oral accuracy. The quantitative and qualitative data were collected to examine the students' speaking development and the perception of students by using pre- and post-tests, questionnaire, and semi-structured interviews after the implementation of MDA.

Within the same groups, the results revealed a statistically significant difference between the pre-test and post-test following the application of the MALL-based intervention ($p = .00$). In comparing between the two groups, the results showed no significant difference between the two groups ($p = .97$). It can be concluded that the MDA intervention could level up EFL learners' oral accuracy for both high and low English proficiency groups. The learners also showed the positive perception toward MDA after the intervention in many aspects,

namely learning affordances during the MDA intervention, the reinforcement from a teacher, the effectiveness of MDA, and the development of learners' oral accuracy. With the positive perception and effectiveness of the MALL-designed intervention to develop oral accuracy, this study offers helpful advice on how to use mobile devices as possible way in Thai language teaching effectively.

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April 30, 2021

Dear Miss Piyaporn Phetsut,
Subject: Acceptance of paper for presentation

We are pleased to inform you that your abstract/paper entitled "**Using a Mobile App to Enhance Speaking Skills for EFL Learners: A MALL-Based Curriculum Design**" is accepted for presentation at the 13th International Conference on Humanities and Social Sciences under the theme titled "Humanities and Social Sciences in Face of Concurrent Disruptions". The conference will take place online via Zoom on May 27-28, 2021. The conference schedule is attached herewith.

Please accept this as a formal invitation letter. We are looking forward to your participation in the event.

Sincerely yours,

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[IJTE] Editor Decision

5 messages

IJTE Editorial Office <ijteoffice@gmail.com>
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Mon, Jun 13, 2022 at 7:42 PM

Dear Piyaporn Phetsut:

We have reached a decision regarding your submission to International Journal of Technology in Education, "Effectiveness of Mobile Assisted Language Learning (MALL)-Based Intervention on Developing Thai EFL Learners' Oral Accuracy".

Our decision is to: Accept Submission

Thanks.

Dr. Omid Noroozi
Associate Professor, Wageningen University and Research

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Nowadays, teaching English as a Foreign Language situation got the effects greatly from the use of digital technologies. According to literature, EFL instructors should incorporate technology as a connector into the lessons by creating appropriate activities between the teacher and students. This will improve students' 21st Century skills, which include the ability to connect with people around the world in real-time by using language and cultural knowledge (Eaton, 2010). For example, the use of mobile technology is one of the learning approaches that can support learners to develop their 21st-century learning skills in EFL contexts (Howlett & Zainee, 2019). Moreover, the use of technology for teaching, learning, practicing, and assessing foreign languages has many advantages, particularly in the EFL contexts where EFL learners have very few opportunities to practice and assess their language skills (Alsied & Pathan, 2013).

Digital technology has been developed in many forms, including mobile devices, which are widely used in educational contexts (Chinnery, 2006). With the effective educational applications of mobile technology, they can be used to enhance unconfident students to personalize their education and empower these students through collaborative learning to access to information anytime and anywhere (Kukulka-Hulme, 2018).

The idea of using mobile devices as mediated tools to enhance language learning in the pedagogical process is known as mobile-assisted language learning (MALL) approach (Chinnery, 2006). The studies which were integrated with MALL investigated language learning development supported the effectiveness of MALL (Kamasak et al., 2021; Xu, 2020) through technology affordances by utilizing the audio, video, text, image, and interactive capabilities of mobile devices. For example, to improve speaking skills, language students can use Skype, WhatsApp and other applications where students can access shared resources with other students, teachers, and even native speakers. Previous studies reported positive effects of MALL on developing speaking skills (Juniardi et al., 2020; Moayeri & Khodareza, 2020; Wu & Miller, 2020), claiming that MALL-designed activities can support teaching and learning English in speaking skills and this approach can promote learners' motivation in EFL contexts.

According to the obvious confirmation of MALL effectiveness in educational contexts (Alkhdair, 2020; Chang & Lan, 2021; Indrastana & Rinda, 2021), the integration of MALL with dynamic assessment (DA) into the process of pedagogical intervention should be encouraged in order to improve EFL students' oral accuracy. Inspired by Vygotsky's Sociocultural Theory, dynamic assessment as an interactive assessment technique provides the unity of assessment and instruction with the goal of learner development and suggests effective directions for instructional processes (Lidz & Peña, 1996). DA is a procedure for simultaneously assessing and promoting development that takes account of the individual's zone of proximal development (ZPD) (Lantolf & Poehner, 2007). Through DA, teachers and students engage in a dialogue to assess students' current level of performance on any task and share the ways that performance might be improved.

Moreover, scaffolding is an essential part of connecting to collaborative learning in DA to achieve the aimed learning objectives (Ramanau & Geng, 2009) through designed instructional intervention. DA intervention can be used to assess learners' performance and also promoted learning growth through mediation to support learners' learning at various learning stages (Lantolf & Poehner, 2007). When used in a learning environment, ZPD suggests that interactions between inexperienced students and experienced person or More Knowledgeable Others (MKO), such as teachers, can facilitate learning (Behrooznia, 2014) by utilizing cultural tools such as learning technology. MKO can provide several types of scaffolding, such as a structure or set of instructions, asking questions, and offering frequent feedback for completing the task and MKO also can adjust the level of mediation in the DA process to suit a student's current level of performance (Gallimore & Tharp, 1990).

Mobile-based dynamic assessment has been shown in several research to improve general language abilities, hence it should be used with DA as a mediation tool. Many studies in EFL contexts demonstrated the benefits of employing DA to improve learners' speaking abilities (Sun et al., 2017b; Xu, 2020) also to promote learners' positive perceptions (Ahn & Lee, 2016; Almadhady, 2021). However, the majority of DA-based research to improve speaking abilities in EFL contexts have only been performed in face-to-face settings. As mentioned, investigating a suitable mediation integrated with DA in different settings is challenging (Lidz & Gindis, 2003), such as online settings. A mobile phone as a connection tool should be coordinated with DA and some studies present the positive competence of mobile-based dynamic assessment to increase general language skills (Andujar, 2020; Ebadi & Bashir, 2021; Moeinpour et al., 2019; Rad, 2021). In conclusion, a MALL-based intervention

can promote a collaborative environment between students and a teacher through dynamic assessment process. In this research study, the area of how to use DA with MALL in enhancing speaking skills needs more investigation.

Nowadays, to integrate technology into language teaching does not only apply it without modifying the pedagogic design. When creating and implementing a technology in language classroom activity, teachers should be aware of the opportunities that technology provides. (Sharma & Hannafin, 2007). Choosing a mobile application to support DA activities and peer collaboration is difficult, especially during the COVID-19 epidemic when learners are away from school and may be unfamiliar with a selected technology. This research project was designed to use WhatsApp for several reasons. Firstly, WhatsApp, a smartphone application with more than two billion active users worldwide, is the most popular mobile messenger application worldwide (Dean, 2021). Many studies in language learning contexts revealed that WhatsApp could be used to enhance students' language learning such as speaking abilities (Akkara, Mallampalli, et al., 2020; Andújar-Vaca & Cruz-Martínez, 2017) including to enhance their confidence (Tahounehchi, 2021). With the highlighted features such as timely feedback, pictures and learning resources, the students can access information anytime and anywhere (Sibplang, 2021). Theoretically, WhatsApp can offer learning chance to learners when it is used in a MALL-based intervention with the DA process to enhance speaking skills.

With the useful affordances of WhatsApp as a MALL device, educators and teachers can leverage them for language learning. Firstly, teacher and learners can send voice messages via WhatsApp that can break the limitation of time and place for teaching and learning. That is, teachers and learners can interact with each other via this application any time and any place outside of the classroom walls with their flexible learning. In addition, providing the media for learning such as video and audio is appropriate for language learning to enhance speaking skills. With these reasons, WhatsApp can be applied in DA. Teachers can send any learning suggestions or tips as DA steps to help learners while they are in the learning process to enhance speaking skills. They can exchange messages as part of collaborative learning. (La Hanisi et al., 2018). Because of WhatsApp's capacity to facilitate collaborative learning, which creates a conducive environment for learning, dynamic assessments can be incorporated with it (La Hanisi et al., 2018). Through this integration, teachers and students can communicate more easily and provide comments, suggestions, and learning materials to help students improve their speaking skills.

Although, MALL application provides the contribution in language learning, the integration of MALL promotes language learning among Thai EFL learners, especially their speaking skills and oral accuracy, little has been known. It continues to be difficult for researchers and educators in Thai education to develop speaking abilities for accuracy in EFL contexts. Speaking abilities, which include accuracy, fluency, and complexity, are necessary for communication and require that L2 learners be able to speak the target language. It continues to be difficult for researchers and educators in Thai education to develop speaking skills in EFL contexts. Speaking skills including accuracy, fluency, and complexity (Skehan & Foster, 1997) are necessary to indicate L2 learners' language proficiency in communication. Chu (2011) noted that the development of EFL learners' speaking skills in term of accuracy seems to be neglected. In EFL research, fluency plays an important role but accuracy and complexity are examined as components of fluency. Additionally, acquainted teaching strategies in EFL contexts such as communicative language teaching and task-based language teaching are designed to emphasis on students' fluency (Chu, 2011).

During the COVID-19 pandemic, the majority of Thai schools switched to online learning and mobile devices are now frequently utilized by Thai students to access online learning (Petchprasert, 2020). Mobile devices become necessary tools on online platform and could mediate between teachers and students through several integrated approaches (Thaoyabut et al., 2021; Wongsuriya, 2020). According to a recent study, Thai EFL students in high schools struggled to produce accuracy in language learning (Tanmongkola et al., 2020), but little is known about the efficacy of applying MALL with WhatsApp through DA process to improve EFL students' oral accuracy (Tanmongkola et al., 2020). In order to assist Thai EFL students who require assistance from online teachers during the COVID-19 situation in Thai EFL contexts, the integration of DA with the MALL method intervention via WhatsApp should be investigated. Because of Thailand's school closure policy during the pandemic (Lao, 2020), this intervention can satisfy the educational demand where online learning occurs. Moreover, teachers and students can adjust their pedagogical processes from onsite to online or blended settings. To fill this gap, this study aims to investigate the effects of a MALL-based intervention combined with the DA process on Thai EFL learners' oral accuracy and perceptions toward MALL-based interventions.

1.2 Purposes of the Study

The present study aimed:

1. to examine students' achievements between their two different levels, high English proficiency and low English proficiency, in comparison with the results after the provided mobile-based dynamic assessment to develop oral accuracy, and

2. to investigate students' perceptions toward the mobile-based dynamic assessment to develop oral accuracy.

1.3 Research Questions

For the research study, the present study attempted to find answers to the following questions:

1. Are there any significant differences in oral accuracy development between students in different language levels: high English proficiency and low English proficiency before and after they were provided with the mobile-based dynamic assessment?

2. What are students' perceptions toward applying mobile-based dynamic assessment to develop oral accuracy?

1.4 Hypotheses

With the above research questions, this study aimed to formulate the following hypotheses:

1. The development of the students with high English proficiency is higher than those with low English proficiency in oral accuracy after they are provided with the mobile-based dynamic assessment.

2. The students both with low and high English proficiency have positive perception toward the mobile-based dynamic assessment intervention to develop their oral accuracy.

1.5 Significance of the Study

These findings would be useful guidelines for language teaching in EFL contexts. First, EFL teachers might get the usefulness from mobile-based dynamic assessment to increase the oral accuracy of EFL learners by adapting the theoretical and practical implications to their contexts. In addition, the study can shed light on how to apply mobile-based dynamic

assessment in language teaching with other mobile applications that might lead to designing a different MALL-based activity in the future. The study can provide some useful guidelines for educators, administrators, and policy makers in deciding on how to implement mobile devices for learning in educational contexts properly, especially mobile phone use at schools aligned with the everyday use of mobile devices by young learners.

1.6 Definition of Key Terms

1. MALL-based dynamic assessment (MDA)

Mobile-based dynamic assessment is a pedagogical approach which integrates Mobile-assistant language learning (MALL) with Dynamic Assessment (DA). This term refers to a scaffolding process through the mobile device used to improve students' language skills. The term was coined in the study from Rezaee et al. (2019) and can offer a collaborative space and a learning opportunity via mobile devices for students to use English as an expansion of EFL class and approves teachers to give supplementary practice and monitor students' learning accomplishment.

2. Oral accuracy

Accuracy (or correctness) refers to the scope to which an L2 learner's performance is different from a criterion (Hammerly 1990; Pallotti 2009; Wolfe-Quintero et al.1998).

CHAPTER 2

LITERATURE RVEIEW

To help better understanding the theoretical framework to answer the research questions raised in Chapter 1, this chapter outlines the reviewed key concepts which allowed the researcher to conduct the research project and discuss implications. The following key notions were reviewed accordingly.

2.1 Mobile Assisted Language Learning

In educational contexts, it is believed that the usage of mobile technology in educational settings can help learners develop their 21st-century learning abilities (Howlett & Waemusa, 2019). The Framework for 21st Century Learning (Battele for Kids, 2019), states that education in this century has become more significant in terms of ensuring that students improve their innovation, creativity, and teamwork as well as learning how to apply these life skills to everyday tasks. The usage of mobile devices can help students achieve these objectives. Using mobile devices as an accessible medium to deliver feedback can help a teacher and students share their learning experiences (Godwin-Jones, 2011). With educational applications, mobile device features can be utilized to enable beginner students to personalize their learning and facilitate the ability for these students to access learning resources through collaborative learning without being constrained by time or place (Kukulska-Hulme, 2018). It is suggested the use of mobile devices as mediation to collaborate in language learning can develop speaking skills (Kukulska-Hulme & Shield, 2007).

Mobile-assisted language learning (MALL) is the concept of utilizing mobile devices as mediated assisted in the pedagogical process. This approach was recommended by utilizing mobile devices to enhance language learning (Chinnery, 2006). MALL is a method of language learning that utilizes the portable technology such as tablets, MP3 players, smartphones, and podcasting to increase language skills (Chinnery, 2006). Chinnery (2006) believes that two of the most significant features of mobile devices are their portability and connectivity. To access learning resources such as short messaging service (SMS) and e-mail, the mobile system needs to be connected to and communicate with the educational website through the device's wireless network (Miangah & Nezarat, 2012). If the learning tools are portable, the learners can move the devices around and take their learning resources with them (Huang & Sun, 2010).

Literature indicated the values of MALL in EFL contexts. With appropriate applications of MALL, learners can access information and social networks immediately, providing flexible time and place in learning, continuity of learning between different settings, supporting individual demands, uncomplicated sharing, and providing an opportunity to practice English language skills at their own pace (Kukulka-Hulme, 2018). The facilitating of MALL tools for EFL learners offers learning resources such as audio, video, text, pictures, and interactive features of mobile devices to meet the authentic language learning (Chinnery, 2006). With the MALL approach, learning inside the classroom is not necessary for EFL learners to study a language (Chusanachoti, 2009) because they are able to learn through mobile device anytime and anywhere depending on their preferred learning style (Miangah & Nezarat, 2012).

Language educators have embraced mobile devices for educational purposes and many applications on mobile phones can enhance learners' language skills (Godwin-Jones, 2011). One of the mobile applications is WhatsApp. It is an instant messaging platform on a mobile phone and users can interact with others (WhatsApp LLC, 2021), providing favorable learning environments for education processes as a supportive technology (Cetinkaya, 2017). This application can provide learners with timely functions, allowing for speaking practice and private feedback from teachers (Amelia, 2019).

The MALL-based pedagogical application can improve EFL learners' listening skills (Salih, 2019) and oral fluency (Sun et al., 2017a) as well as support collaborative learning between teachers and learners (Agnes Kukulka-Hulme and Lesley Shield as cited in Godwin-Jones, 2011). Many studies have showed positive effects of using WhatsApp on English learning skills (Akkara, Anumula, et al., 2020). With limited exposure to language for EFL learners in their learning contexts, the MALL application can extricate the limitation of the number of native speakers in their areas, including increased awareness, motivation, and interaction (Ataeifar et al., 2020; Fasa & Purnawarman, 2020; Indrastana & Rinda, 2021). However, little is known about how to enhance speaking skills. Therefore, it is worth taking advantage of WhatsApp for language teaching and learning to enhance the speaking skills of EFL learners.

2.2 Dynamic Assessment

A pedagogical approach called dynamic assessment (DA) combines instruction and evaluation. With this combination, the teachers can offer students consistent and efficient

support based on their developmental needs and goals (Lidz & Peña, 1996). This approach influenced by Vygotsky's Zone of Proximal Development (ZPD) is used to assess student performance in association to their ZPD (Lantolf & Poehner, 2011; Poehner & Lantolf, 2005). Vygotsky (1978) clarifies ZPD is “the distance between the actual development level as determined by independent problem solving and the level of potential development as determined under adult guidance or in collaboration with more capable peers” (p. 86). When utilized in an educational setting, ZPD suggests that interactions between beginner students and More Knowledgeable Others (MKO), such as a teacher, can enhance learning (Behrooznia, 2014) through the implementation of mediators.

In the DA process, students might work with more competent classmates or with experts to solve problems difficulties beyond their true level of development. By using several types of scaffolding such as a structure or set of instructions, asking questions, and providing timely feedback for completing the task, an MKO can adjust the level of mediation to meet a student's current level of performance (Gallimore & Tharp, 1990), including the use of technology to support scaffolding (Sharma & Hannafin, 2007). Mediation for learners depend upon their level, age, and particular knowledge.

Previous studies on DA in EFL contexts demonstrated the improvement of language skills and revealed the positive effects of DA on language learning (Ebadi & Asakereh, 2017; Hessamy & Ghaderi, 2014; Khoshsima & Farokhipours, 2016), including speaking skills. Teachers can provide students with the opportunity to practice speaking with DA through a planned intervention that includes feedback, learning resources, and digital technology as a mediated tool, the studies about DA with speaking skills are limited in formal research contexts, particularly in Thai school contexts. With a limited number of native speakers who can be role models for language learning in Thai EFL contexts, research is needed to suggest pedagogical ways to maximize the use of limited native speakers and mobile technology to cater to the needs of many Thai learners at schools.

2.3 MALL-based dynamic assessment (MDA)

Technology is an option to promote language learning with communication without the limitation of time and place during the pandemic situation with school closure in Thailand (Segev, 2014). In order to support the learners in developing their language learning in different skills, the teacher might use mobile technology as a mediator to give suitable scaffolding in the

dynamic assessment process. Combining the convenient functions of mobile devices with dynamic assessment as scaffolding processes in language learning based on students' ZPD is called MALL-based dynamic assessment (MDA). As mentioned MDA is a scaffolding process through the mobile device used to improve students' language skills.

WhatsApp is one of the most widely used and well-known mobile communication platforms by global users (Dean, 2021) and WhatsApp is a smartphone-based instant messaging application that enables users to send and receive messages in various formats such as text, image, video, and audio messages (Church & De Oliveira, 2013). To improve speaking abilities, this smartphone application can be used as a mediator between instructors and students (Khan et al., 2021; Mustafa, 2018). Additionally, it is easy for learners to access educational materials on WhatsApp at any time and any place and it can support collaborative learning with sharing messages to each other. (La Hanisi et al., 2018).

With the features and the educational benefits of WhatsApp facilitating collaborative learning, it can be incorporated with dynamic assessments as a learning community (La Hanisi et al., 2018). This integration between DA and mobile devices could support learners with communication between teachers and learners such as feedback, suggestions and language learning resources to improve speaking skills. The teacher can use the usefulness of WhatsApp's features to construct language learning activities to improve students' speaking skills by giving students the opportunity to interact with the teacher.

In this study, DA as scaffolding process adapted from Lantolf and Poehner (2011) was integrated with WhatsApp to promote EFL learners enhance their speaking skills (Tarighat & Khodabakhsh, 2016). According to the study from Lantolf and Poehner (2011), they used DA as a scaffolding process to represent the interactivity between a Spanish teacher and learners. In their study, the scaffolding framework was designed to allow the teacher providing an inventory of prompts which consists of eight hints in order to enhance their language skills. Moreover, this framework was also adapted and utilized in this study. However, the study regarding using WhatsApp as MALL tool integrated with the scaffolding process for improve Thai EFL learners' speaking skills is still rare. In addition, it is unclear how to provide scaffolding processes for EFL students with timely feedback to increase oral accuracy on WhatsApp.

2.4 Oral Accuracy in EFL Contexts

Speaking skills consisting of accuracy, fluency, and complexity (CAF) are essential for communication (Skehan & Foster, 1997) and CAF is necessary for L2 learners' language skills. According to Housen and Kuiken (2009), "CAF have been used both as performance descriptors for the oral and written assessment of language learners as well as indicators of learners' proficiency underlying their performance; they have also been used for measuring progress in language learning" (p. 461). Skehan (1998) introduced a proficiency model that brought the three dimensions together for the first time, including fluency, accuracy, and complexity. These three dimensions of communication skills, complexity, accuracy, and fluency (CAF), have been used in some researches on the acquisition and using a second language.

Complexity points out to the complexity of both works (objective difficulty) and expressing language skills (Skehan, 1998; Robinson, 2001). Ellis (2008) indicates complexity as 'the capacity to use more advanced language' while Skehan (2009) defines complexity as 'challenging language'. The most basic coherent construct is accuracy, which refers to the degree of adherence to correct and error-free norms. Wolfe -Quintero et al. (1998, p. 33) determined accuracy measures as the comparison with a used target. Lastly, the ability to produce speech at a normal speed without pausing might be characterized as fluency (Skehan, 2009; Ellis & Barkhuizen, 2005).

There are many ways to calculate CAF; complexity, accuracy and fluency. First, the number of pauses defined as a break of one second or more was used to operationalize the term "fluency". The total number of clauses divided by the total number of c-units was used to calculate complexity. According to Brock (1986), a c-unit is a statement that conveys referential or pragmatic meaning and is composed of a simple clause or an independent subclause or unit, along with any connected subordinate clause(s). Lastly, the percentage of error-free clauses was used to evaluate accuracy. It must not contain any morphological, syntax, or lexical errors in a clause in order to be considered error-free.

For researchers and educators, developing speaking skills for accuracy in EFL contexts remains a challenge. Chu (2011) stated in her study that accuracy tends to be overlooked in the development of EFL learners' speaking skills. Fluency seems to domineer in EFL study, whereas accuracy and complexity are examined as components of fluency. Furthermore, well-known EFL teaching methods such as communicative language teaching and task-based language teaching are intended to emphasize on learners' fluency.

2.5 Related Literature about MALL-Based Interventions in EFL Speaking Skills

Researchers have been interested in the integration of mobile technologies for educational purpose, and many people believe that this has the potential to improve language learning (e.g., Godwin-Jones, 2011; Panagiotis & Krystalli, 2020). Mobile phones, which come with internet connection and a variety of applications, are seen as common tools and are utilized in language learning, much like other mobile devices. Researchers have been increasingly focused on mobile language learning (MALL) for the past ten years (Panagiotis & Krystalli, 2020), including the MALL approach to enhance language skill (Panagiotis & Krystalli, 2020).

Previous research has demonstrated WhatsApp's benefits for learning the English language, particularly for enhancing speaking abilities (Akkara et al., 2020; Mustafa, 2018) and facilitating collaborative learning (La Hanisi et al., 2018). The term "MALL-based intervention" or "MALL-based dynamic assessment" (MDA), which was developed in the study by Rezaee et al. (2019), revealed the potential to support speaking skills of WhatsApp with the scaffolding process. It can provide a collaborative space and a learning opportunity for learners to use English as an extra activity outside classroom discussion. It also allows teachers to provide training and assistance while also monitoring students' learning achievements. WhatsApp has the potential to support speaking skills through the scaffolding intervention.

In spite of few researches have examined how MALL and DA can be combined to improve language learning through the use of WhatsApp (e.g. Rezaee et al., 2019), is known about Thai EFL classroom setting. According to the study from Rezaee et al. (2019), they explored the effects of MDA of Iranian pre-intermediate EFL learners' oral accuracy when they were asked to perform assignments on WhatsApp utilizing voice and text chats in a higher education setting. The post-test results from their study revealed a significant improvement in oral accuracy after providing feedback in each task. However, the text-chat group performed better than the voice-chat group in term of development.

Later research by Rezaee et al. (2020) and Ebadi and Bashir (2021) verified the effectiveness of a text-chat group over a voice-chat group with WhatsApp in promoting language development (2021). In Rezaee et al.'s (2020) study to increase oral fluency, pre-intermediate English learners completed eight oral activities via text-chats, voice-chats on WhatsApp, and face-to-face. The dynamic assessment intervention was provided to these students. The post-test results demonstrated that MDA via text-chat and voice-chat could

significantly improve learners' speaking fluency in comparison to traditional face-to-face dynamic assessment.

Corresponding to a recent study by Ebadi and Bashir (2021), it demonstrated the benefits of MDA on language development of learners in order to improving writing skills and revealed the positive results from students who completed text-chat tasks. However, the learners showed the positive satisfaction with the voice-based mediation in terms of chance, confidence, and development. The students agreed that when teachers communicated with the students using voice-based mediation, the teachers were able to explain and adjust more quickly and effectively than using text-based mediation and also the voice of the teacher effects learners' confidence.

Although previous MDA studies indicated positive effects on EFL learners' language skills, these positive findings cannot be anticipated in other contexts, including Thai EFL situations. Furthermore, the study about WhatsApp-based interventions focusing on oral accuracy in English skills is quite restricted in Thailand. Although it has been suggested that MALL-based interventions can develop EFL students' language skills, little is known about utilizing the mobile application, WhatsApp as MALL, in Thai EFL situations, particularly with high school students. Because of the neediness of the application of MALL and its implications for language learning in MALL study as Chinnery (2006) called. This study aims to respond to this call by examining the effect of a mobile application on speaking skills in order to fill a gap in the context of Thai EFL school education.

CHAPTER 3

Methodology

The present study is a mixed method study based on an approach to an inquiry involving collecting both quantitative and qualitative data (Creswell, 2009). The study tried to examine the effects of mobile-based dynamic assessment on developing oral accuracy of Thai EFL learners at different English levels and investigated the perception of Thai EFL learners toward the mobile-based dynamic assessment to develop oral accuracy. In this part, participants, instruments, data collection procedures, and data analysis were described.

3.1 Research Design

The mixed method study is a quasi- experimental research project through single-subject design (Creswell, 2009) and the process of this study was a part of the course syllabus in fundamental English for Grade 11 students. The role of the researcher was a planner for the processes and an observer of the designed learning activities, but measuring and analyzing oral accuracy of learners were done by an English native teacher according to determined processes from the researcher. The data for answering the research questions were collected from three main instruments: oral pre and post-test, semi-structured interviews, and a questionnaire. Questions 1-2 were answered by the quantitative data from the oral pre-test and oral post-test of participants. To answer question number 3, the data were collected from the perception questionnaire and semi-structured interviews to investigate the perception of Thai EFL learners toward the mobile-based dynamic assessment developing oral accuracy.

3.2 Participants

The participants were 80 Thai students consisting of thirty-two males and forty-eight females, aged 17, studying English as a foreign language in Grade 11 in an English course with the lower intermediate English proficiency level at a secondary school in southern Thailand¹. They were chosen via a purposeful sampling and asked to complete a survey

³ The school is Huai Yot in Trang where the researcher is currently teaching English.

questionnaire before the project started to determine whether or not they owned smartphones with internet packages. Then, they were provided English Language Level Test (ELLT) to indicate their English proficiency level in general. Thirty students who had smartphones with the internet package volunteered to join the project and they were selected via the purposive sampling of this study due to their participation in the designed research activities. In addition, they were grouped based on the scores from their measured English proficiency levels: 15 high and 15 low. The students with the top 15 scores were considered to be the high English proficiency group and those with the low 15 scores were considered to be the low English proficiency group as seen in Figure 1. However, those without smartphones and internet packages resumed their class by doing the same speaking tasks with peers who own smartphones as pair work, but their data were not collected in this study.

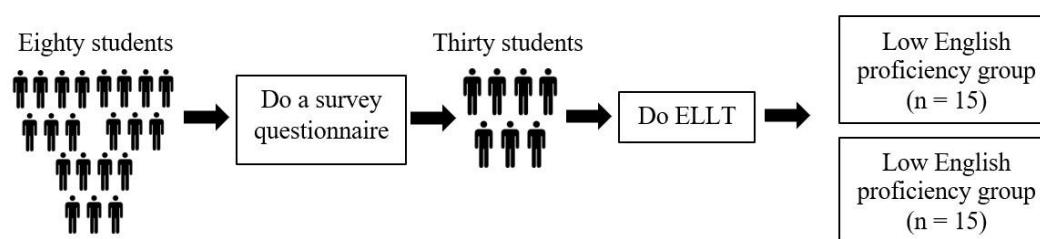


Figure 1: The process for choosing participants

3.3 Research Instruments

The instruments used in this study consisted of eight types: a survey questionnaire, English Language Level Test, speaking tasks, Teacher's handbook, Student's handbook, oral pre-test and oral post-test, perception questionnaire and a set of questions for semi-structured interviews. The details of each are provided in the following sections.

To recruit the participants in this study, the following tools were used.

3.3.1 Survey Questionnaire

It is used to survey the smartphone ownership with internet package of the learners who are studying fundamental English in grade 11 in a secondary school as a research setting. It consists of seven questions, aiming to get the background of their everyday use of mobile technology. The results from this survey helped the researcher to choose students who have smartphones with the internet package as participants of this study (See Appendix B).

3.3.2 English Language Level Test

To measure the learners' level of English proficiency in general before the treatment, an English Language Level Test Level consisting of 30 multiple-choice questions with an answer sheet was used in this study (See Appendix C). It was adapted from Cambridge English Key Level A2 (2016) based on the Common European Framework of Reference for Languages (CEFR), which has been widely accepted and used as an evaluation tool for individual English language proficiency. In Thailand, CEFR has been adopted as the standard for all educational levels, according to a statement from the Ministry of Education (Hiranburana et al., 2017). As the education system moves towards using the CEFR framework to evaluate English language proficiency in schools, A2 proficiency of CEFR levels was set to be the English language proficiency target for learners in grade 9. Although the English language proficiency of learners in grade 11 is higher than the determined proficiency target, they might not achieve some skills and lack some information to be at the B1 level, which it is determined to be the proficiency target of learners at the end of in grade 12. As mentioned, the English test for A2 level is an appropriate choice to be the target level of the English test for participants in grade 11. It was provided to learners to group them according to the English proficiency group.

To answer RQ 1, the following tools were used to collect data.

3.3.3 Teacher's handbook

As the researcher was the observer of the research project, the handbook was designed in English version to provide the necessary information for the English native teacher as the course evaluator to support the learning process during the treatment in this research project. The purpose of Teacher's handbook is to allow the evaluator to understand all steps and details of completing the oral activities during the treatment. It consists of several sections: all steps of providing oral tasks via WhatsApp, the guideline for analyzing clauses and errors in learners' responses for measuring their accuracy, and the guideline for using WhatsApp in this study. The teacher could use the handbook as a resource if unsure about the treatment during the project and for discussion with the researcher.

3.3.4 Student's handbook

It was written in Thai to provide the participants with the details, instructions, steps for doing the speaking activities to allow them to understand the activities clearly and avoid language barriers. This handbook was divided into two sections. Firstly, it included the details and steps for doing oral activities in this study, including how to do oral tasks and the roles of

chat on WhatsApp. The other section was steps of how to use WhatsApp for oral activities with helpful links such as QR code linking to video clips on YouTube.

3.3.5 Oral pre-test and oral post-test

The oral pre-test and oral post-test consisting of three tasks were designed by the researcher based on the learning objectives in the learners' English book and course syllabus of the subject (See Appendix D). The participants were asked to accomplish the same oral test twice: one before and the other after completing five spoken activities via WhatsApp. The tests were to evaluate the speaking accuracy development of participants after receiving the mobile-based intervention. To ensure the reliability of the tests, a test of internal consistency reliability was conducted and the result was acceptable (Cronbach's alpha = .87).

3.3.6 Speaking tasks

Five oral tasks were used in the treatment section to promote oral accuracy for five weeks through WhatsApp during an English course, and their responses were not marked for accuracy. Each task was designed based on the contents of the learners' book as shown in Table 1. The tasks were parallel with the language teaching in the classroom as shown in Table 2 that implied that the participants had learnt the contents before doing each oral task (See Appendix E). The participants had three minutes to complete a task by recording their voices and sent it to the teacher via WhatsApp on Thursday afternoon for 5 weeks. This intervention was treated as an extra activity, and it did not interrupt their normal language learning activities at school.

Table 1: Speaking tasks for 5 weeks (a task per week) in treatment section

Weeks	Contents in classroom	Speaking tasks
1	Unit 1: Let's talk - Communication verb - Social network - will, might/may + adverb of possibility - First Conditional	Task 1: Express the advantages of social network
2 – 3	Unit 2: Fears - Fears - Be going to/will - -ed and -ing adjective - Expressing surprise	Task 2: Tell what you are afraid of and share your experience
		Task 3: Make a short story from the given picture
4 – 5	Unit 3: school life	Task 4: Share your school life

Weeks	Contents in classroom	Speaking tasks
	<ul style="list-style-type: none"> - Life at school -Second conditional - Using make and do - Asking for and giving advice 	<p>Task 5: Your friend is worrying about her grades that are lower than last semester.</p> <p>Give your advice to your friend.</p>

To answer RQ2, the following tools were used to collect data:

3.3.7 Perception Questionnaire

To investigate learners' perceptions toward the use of MALL-based dynamic assessment at the end of the treatment section, the perception questionnaire with a Five Likert-scale was constructed by the researcher based on the literature on the four categories relating to mobile-based dynamic assessment: the development in oral accuracy, learner autonomy, support from a teacher and effectiveness of assessment. It consists of sixteen statements and was written in the respondents' mother tongue, Thai, to ensure their full comprehension of the items and avoid any problems arising from the language barriers. The Cronbach's alpha for the sixteen items was .910, suggesting that the items had the relatively high internal consistency (See Appendix F).

3.3.8 Semi-structured Interviews

The purpose of the group interview was to investigate the students' perceptions toward mobile-based dynamic assessment in depth after doing oral five speaking tasks for five weeks. It consisted of five questions based on four categories similar to the perception questionnaire: development in oral accuracy, learner autonomy, supporting from a teacher, and effectiveness of assessment (See Appendix G).

3.4 Data Collection Procedure

The procedures of the study were divided into three sections, namely the pre-treatment section, the treatment section, and the post-treatment section to collect the data.

3.4.1 Pre-treatment section

Ethical issues

A mobile-based dynamic assessment (MDA) intervention was employed in this study to assist Thai EFL students become more accurate in speaking. Before data collection, this study conformed to the ethical standards outlined by the Center for Social and Behavioral Science

Institutional Review Board at Prince of Songkla University in Thailand. It was approved with No. 2020 PSU – St – Qn 016 (See Appendix A).

Test piloting

Before the implementation of research instruments, the validity and reliability were evaluated. For evaluate the content validity from all instruments, all tools were checked and inspected by three experts in the area of EFL and language education before implementation. The oral test and perception questionnaire were piloted to another group of students in grade 11 who were not the target sampling. Then, the internal consistency reliability of the oral test and perception questionnaire was checked.

Before the project, a group of learners did the survey questionnaire to check the ownership of smartphones with an internet package. Then, they were provided with the English Language Level Test to indicate their English proficiency level in general. Thirty students who had smartphones with the internet package and volunteered to join the project were grouped based on the English proficiency levels: 15 high and 15 low proficiency groups. Others remained in the same class and joined the project activities, but the researcher did not collect their data. The students were provided the student's handbook and the evaluator was provided the teacher's handbook. In addition, they were asked to install WhatsApp application on their mobile phones and were trained how to use the mobile application for doing oral activities. The evaluator was trained by the researcher to provide hints according to the eight steps adapted from Lantolf and Poehner (2006): to measure students' oral accuracy according to the guideline and the criteria. After training, the students and the evaluator were asked to use WhatsApp for responding to assigned tasks to ensure the proficiency of using WhatsApp.

3.4.2 Treatment section

Before the use of MALL-based dynamic assessment, the participants were asked to complete the oral pre-test via WhatsApp to measure their oral accuracy from their responses according to the set criteria. Then, the treatment section occurred on Thursday afternoons for five weeks as extra activities. Every week outside of class hours, students recorded a 3-minute voice clip according to a dynamically task provided by the teacher and sent it to the teacher via WhatsApp. To indicate their responses before returning the feedback to the learners via WhatsApp, the teacher had to give some feedback to enhance their oral accuracy. The feedback from a teacher was divided into 2 cases depending on the students' performance.

Case 1: The student's response was correct. There was no error in any sentences. The teacher gave students some compliments via WhatsApp.

Case 2: The student's response is incorrect forms with some errors. The teacher used the scaffolding guidelines adopted from Poehner and Lantolf (2005). Their moves were ordered from most implicit (saying again) to most explicit (explanation) steps via WhatsApp. These scaffolding steps are as follows (see Figure 1):

Step 1: Teacher asks students to say again

Step 2: Repeat the whole phrase questioningly

Step 3: Repeat just the part of the sentence with the error

Step 4: Teacher points out that there is something wrong with the sentence

Step 5: Teacher points out the incorrect word(s)

Step 6: Teacher asks either/or questions

Step 7: Teacher identifies the correct answer(s)

Step 8: Teacher explains why via WhatsApp

During the process of the MALL-based intervention for five weeks, the teacher used WhatsApp to facilitate the participants' access to data, suggestions, videos, and other resources in order to support their improvement in oral accuracy (see Figure 2).

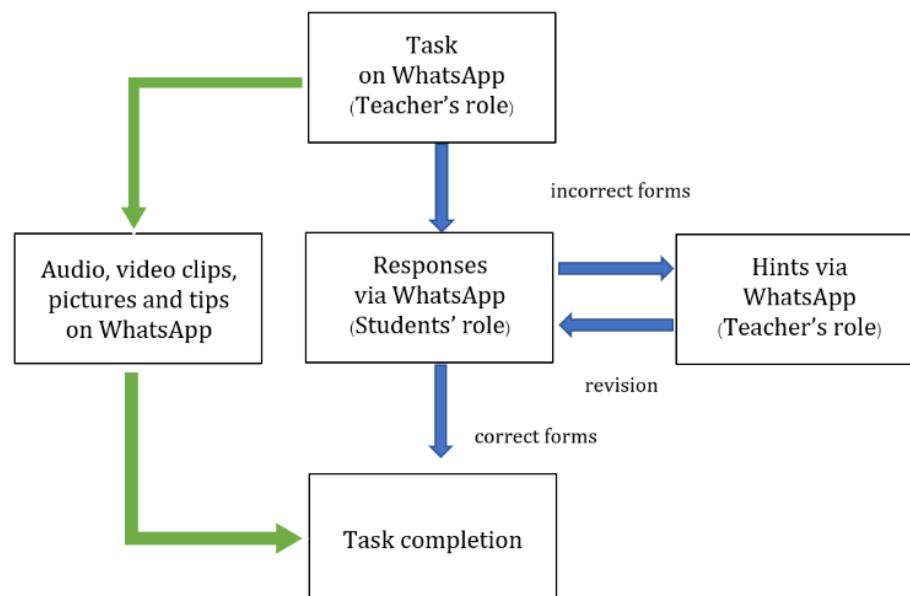


Figure 2: A MALL-Based Dynamic Assessment for Oral Accuracy

For the classroom setting, students, sitting in the classroom, had to complete the task via WhatsApp according to instructions and the researcher's role was the observer while they were doing the activity. The teacher analyzed their responses and the clues were provided to

students if they were incorrect. The purpose of the section was to allow students to practice speaking, but the response was not measured as the score of accuracy.

3.4.3 Post-treatment section

The learners were given an oral post-test after got the effect from the MALL-based intervention for five weeks in order to assess the improvement of their oral accuracy. Then, the perception questionnaire toward mobile-based dynamic assessment for enhancing oral accuracy was distributed to the students. In addition, those ten participants from the high English proficiency group and ten participants from the low English proficiency group were invited to join the interviews for investigating their perception of the mobile-based dynamic assessment to develop oral accuracy in depth. The participants were interviewed in groups: two groups of high level and two groups of low level and each group spent 10 minutes to talk with the researcher.

Table 2: The planned activities in this study

Weeks	Tools	Activities	Purposes
Week 1	Survey Questionnaire	Surveying the smartphone ownership and internet package of students	To choose some participants of this study
	English Language Level Test	Doing the English Language Level Test	To categorize the level of students
Week 2	Teacher's handbook and Student's handbook	Providing the orientation for the students and the native English teacher	<ul style="list-style-type: none"> - To inform objectives of this research and necessary information - To train the students and the teacher to use WhatsApp Application - To train the teacher to provide hints according to the assigned steps and measure oral accuracy for a teacher
	Oral pre-test	Doing the oral pre-test	To collect the speaking scores with the oral post-test

Weeks	Tools	Activities	Purposes
Week 3	Speaking task 1	Completing task 1	To run the intervention
Week 4	Speaking task 2	Completing task 2	To run the intervention
Week 5	Speaking task 3	Completing task 3	To run the intervention
Week 6	Speaking task 4	Completing task 4	To run the intervention
Week 7	Speaking task 5	Completing task 5	To run the intervention
Week 8	- Oral post-test - Semi-structured Interviews	Administering the oral post-test, the perception questionnaire and join interview	- To indicate the development of students' oral accuracy after intervention - To investigate the perception of the students toward the mobile-based dynamic assessment
Week 9	-	Analyzing the collected data	To answer the research questions

3.5 Data Analysis

The collated data were divided into five parts to answer the research questions as follows:

3.5.1 Computing oral accuracy

For indicating oral accuracy from the pre- and post-tests, the number of error-free clauses suggested by Skehan and Foster (1997) and Robinson (2001) suggested that measuring error-free clauses is an effective way to analyze accuracy. In this study, the scores from the participants were measured by calculating the number of error-free clauses as the percentage of the total number of clauses based on the guidelines adapted from Polio (1997) and also provided the definitions of “errors” and “clauses” (see Appendix A).

3.5.2 Descriptive statistics

After the analyzing, the accuracy scores were computed in the percentage of accurate clauses and the score average from the three tasks of the oral test. Descriptive statistics were used to analyze 1) the average of percentage of accurate clauses from the three tasks 2) the average of perception of the EFL learners from five Likert scales.

3.5.3 Paired sample t-test

The Paired Samples t- test was used to compare the means scores from the pre- and post-oral tests before and after mobile-based dynamic assessment of Thai EFL learners in comparing the scores of the two groups: high and low English proficiency to find the development of participants' oral accuracy. The result was presented in a p-value that was used to define whether the participants' means differed or not.

3.5.4 Independent sample t-test

The Independent sample t-test was used to indicate the improvement of two independent groups within the low and high English proficiency groups after the intervention. For the test results, a p-value of less than 0.05 was checked to indicate a statistically significant difference in the learners' performance after the intervention.

3.5.5 Content analysis

It was used to analyze qualitative data from semi-structured group interviews to investigate the perception of the participants for developing oral accuracy. The collected information from interviewing 20 participants in the two different groups were coded, categorized, and analyzed according to four main points: development in oral accuracy, facilities for learning, supporting from a teacher, and effectiveness of assessment.

Table 3: A summary of data collection and analysis

Research questions	Tools	Data	Analysis methods
1. Are there any significant differences of oral accuracy improvement between low and high English proficiency groups after mobile-based dynamic assessment?	Oral pre-test and Oral post-test	Score	-Descriptive statistics - Independent sample t-test

Research questions	Tools	Data	Analysis methods
2. What are students' perceptions toward applying mobile-based dynamic assessment to develop oral accuracy?	- Perception questionnaire - Semi-structured interview	- Five-Likert scales - Transcribed interview texts	- Descriptive statistic - Content analysis

CHAPTER 4

RESEARCH RESULTS

This chapter presents the results of the two main research questions as stated in Chapter 3. The two main questions were to investigate the effectiveness and the learners' perception on the use of MALL-based intervention to enhance their speaking accuracy.

4.1 Results of RQ 1

The research question 1 investigated whether there was any significant effect of MDA on oral accuracy of EFL learners after the MALL-based intervention. The results showed significant differences both within the low and high proficiency groups of the students in terms of oral accuracy scores after the intervention. The oral test results of the participants in High English proficiency group in Table 4 shown with the mean score of all tasks from pre-test (M=.53, SD=.23) and post-test (M=.79, SD=.14) indicated that there was positive development between pre-test and post-test after the MALL-based intervention. In comparison of the results between the before and after treatment scores, a significant difference of the mean scores was found at the significant level of .01, suggesting that the learners presented the development of oral accuracy after the using of MDA and it verified the effectiveness of MALL-based intervention for developing the learners' oral accuracy of participants in High English proficiency group ($p=.00$).

Table 4: The results of Paired-Sample t-Test in each group (N=30)

Group	Pretest		Posttest		Paired-Sample t-test		
	Mean	SD	Mean	SD	<i>t</i>	df	<i>p</i>
High English proficiency group (N=15)	.53	.23	.79	.14	-4.26	14	.00
Low English proficiency group (N=15)	.44	.22	.69	.19	-5.96	14	.00

Note. * $p < .01$

Likewise, for the Low English proficiency group, the results also showed the similar significant difference. The score of all tasks from pre-test (M=.44, SD=.22) and post-test

($M=.69$, $SD=.19$) showed improvement of their accuracy after the MDA intervention. In addition, the results before and after provided MDA to enhance oral accuracy as shown in Table 4, was a significant difference in the means between pre-test and post-test ($p=0.00$), meaning that the learners showed the development of oral accuracy after the MDA intervention. This could be concluded that there was oral accuracy development after the MDA intervention within each student group.

To indicate the effectiveness of MDA for improving oral accuracy of learners in terms of the development of the learners in different English proficiency levels, the means scores of the pre-tests and post-test from the two groups were calculated to examine the difference within two groups. The results (see Table 5) showed that the different means score of two groups were similar (High English proficiency group: $M=.26$, $SD=.24$; Low English proficiency group: $M=.26$, $SD=.17$).

Table 5: The results of Independent Samples Test between two groups

Group	The different mean scores of pretests and posttest between two groups		t	df	Sig (2-tailed)
	Mean	SD			
High English proficiency group (N=15)	.26	.24	.04	28	.97
Low English proficiency group (N=15)	.26	.17			

Note. * $p < .01$

Then, the Independent Samples Test was used to examine the significant difference of the development between the participants in the two groups. The results illustrated that there was no significant difference between the participants in low and high English proficiency groups ($p = .97$). It can be concluded that the MDA intervention could level up learners' accuracy in both English levels with approximate effectiveness for both groups without any difference.

To illustrate the development of oral accuracy in the speaking tasks produced by both low and high English proficiency students, the errors taken from the pre-test and post-test were transcribed and presented as the examples of the results to RQ1 and presented in this section. These errors were identified according to three types of accuracy errors, namely errors in

syntax, error in morphology and error in lexical choice (Skehan & Foster, 1997; Yuan & Ellis, 2003). In responding to RQ1, it was also found that the most frequency of errors in oral accuracy in this study was in morphology type, followed by syntax and lexical choice respectively as shown below.

Table 6: The number of errors produced by students in each group

Types of errors	No. of errors produced by Low English proficiency group	No. of errors produced by High English proficiency group	Total
Morphology	58	73	131
Syntax	39	53	92
Lexical choice	16	15	31

In conclusion in Table 6 from Thai students' respond, the highest frequency errors that occurred is error in morphology (N=131) following with error in syntax (N=92) and error in lexical choice (N=31).

The following are some examples of responses from the students in both groups of English proficiency levels. The underlined parts are the errors they made during the pre- and post-test.

Errors in syntax

Example 1: Task 1

"Why don't you presentation practice with me? It may reduce your anxiety and make presentation easier."

Low English Proficiency Student 23, Pre-test

Example 2: Task 2

"Rose in home alone because her parents go to work every day and don't have time to take care of her every day. She turns off the light and sits in front of the mirror while she is talking to herself."

High English Proficiency Student 6, Post-test

In this type of error, many students often made the syntax errors in terms of fragment types when they produced oral tasks. For example, an error was either missing the subject, the verb, or the complete thought as seen in Example 2. The phrase “Rose in home alone” missed the main verb; therefore, the students should add “is” in this clause as in “Rose is in home alone”. In addition, there was the word order error in which a simple sentence in English should begin with a subject, followed by a verb and/or an object which had the action applied to it. However, some students showed this word order error as seen in Example 1. The correct sentence should be “Why don't you practice presentation?”.

Errors in morphology

Example 3: Task 3

“Ally is leaving the exam room, she look happy because she think she did great job but her friends look very seriously about the exam.”

High English Proficiency Student 8, Pre-test

Example 4: Task 3

“Cherry enjoys to study because the teacher is very kind.”

Low English Proficiency Student 17, Post-test

Most errors in morphology in the oral test were spotted in subject-verb agreement errors in which the subject and verb of a sentence do not agree in number. As seen in Example 3, the student neglected a singular verb to match a singular subject. The sentence should be “she looks happy” and “she thinks”. Other kinds of errors which often occurred in this study were gerund errors and infinitive errors (see Example 4). The verb “enjoy” had to be followed by a gerund form as a noun and it should be “Cherry enjoys studying”

Errors in lexical choice

Example 5: Task 2

“A girl lives in a room. She is alone at horse.”

Low English Proficiency Student 8, Pre-test

Example 6: Task 3

“Yesterday, she did a great job in final test. Today, she smiles and joins the class because she will get a free gift from the teacher.”

High English Proficiency Student 21, Pre-test

In comparison with other errors, this type of errors sometimes occurred. As seen in Example 5, the student had a confusion between “house” and “horse” which is known as a confusion error. It was also found that some redundancy in their response was detected as seen in Example 6. The phrase “a free gift” notified a present (a gift) which is free; therefore, the word 'gift' was enough in this sentence.

4.2 Results of RQ 2

RQ2 was aimed at examining the perception of the learners on the use of MALL-based intervention to enhance their speaking accuracy. Two kinds of the data were collected and analyzed accordingly. RQ2 was aimed at examining the perception of learners on the use of MALL-based intervention to enhance their speaking accuracy. Two kinds of data were collected and analyzed accordingly.

4.2.1 Quantitative data from the perception questionnaire

The data from the questionnaire were collected to assess students' perceptions toward the MDA intervention based on four subheadings: the effectiveness of the mobile-based dynamic assessment, the development of students' accuracy after they were provided with MDA, and facilities for learning and the scaffolding process from the teacher. Mean scores for a selection of 5-point Likert-type items (1 = strongly disagree to 5 = strongly agree), were intended to reflect the students' perception. The maximum and the minimum boards of each scale adopted from Pimentel (2019) were:

Scale 1. Mean scores from 1.00-1.79 mean strongly disagree.

Scale 2. Mean scores from 1.80-2.59 mean disagree.

Scale 3. Mean scores from 2.60-3.39 mean neutral.

Scale 4. Mean scores from 3.40-4.19 mean agree.

Scale 5. Mean scores from 4.20-5.00 mean strongly agree.

Then, descriptive statistics were used to analyze the means score of each statement as mentioned in Table 7.

Table 7: The mean score of overview perception

Perception of participants	N	Mean	Std. Deviation	Evaluation Criteria
Learning Affordances during the MDA Intervention	30	4.27	.32	strongly agree
The reinforcement from a teacher	30	4.00	.66	agree
The effectiveness of MDA	30	3.96	.61	agree
The development of learners' accuracy	30	3.71	.70	agree
Overview of learners' perception	30	3.99	.51	agree

According to four subheadings for indicating students' perception, the overall perception of the use of MDA in this research study showed that the participants agreed on the MDA activities ($M=3.99$, $SD=0.51$). To investigate the perception of students toward MDA for developing oral accuracy, the learners strongly agreed that MDA provided facilities for learning ($M=4.27$, $SD=0.32$). They agreed that the scaffolding process from the teacher could help them to improve their oral accuracy ($M=4.00$, $SD=0.66$). Moreover, MDA was effective in developing speaking skills ($M=3.96$, $SD=0.61$). Without doubt, the participants agreed that MDA could support their development of oral accuracy. In conclusion, the mean scores of overall perceptions toward MDA to developing oral accuracy of learners illustrate the positive perception of the use of MDA in improving speaking skills. The detail of each subheading is illustrated in the next tables.

Table 8: The perception on the effectiveness of the mobile-based dynamic assessment

Perception of the participants	Mean	Std. Deviation	Evaluation Criteria
The speaking activities via WhatsApp help learners to realize the weaknesses of speaking.	4.27	.69	strongly agree
The speaking activities via WhatsApp can reflect learners' true speaking level.	3.97	.72	agree

Perception of the participants	Mean	Std. Deviation	Evaluation Criteria
Interaction via WhatsApp can better reflect learners' speaking level than doing a paper test or a speaking test in front of the teacher.	3.90	.84	agree
The speaking activities via WhatsApp are interesting.	3.87	.94	agree
The speaking activities via WhatsApp should be used to develop speaking skill in the future.	3.80	.85	agree

In terms of the effectiveness of the mobile-based dynamic assessment, the results from the perception of the participants showed that they strongly agreed on the helpful interaction between students and the teacher while they were doing activities through WhatsApp, which could point out their weaknesses from their speaking ($M=4.27$, $SD=0.69$). They also agreed that the MDA intervention could reflect their speaking levels ($M=3.97$, $SD=0.72$) and the MDA activities were more effective to indicate their speaking level than doing a paper test or a face-to-face speaking test ($M=3.90$, $SD=0.84$). In addition, MDA was considerably interesting ($M=3.87$, $SD=0.94$) and should be used to develop speaking skills in the future ($M=3.80$, $SD=0.85$).

Table 9: The development of learners' accuracy

Perception of the participants	Mean	SD	Evaluation Criteria
The speaking activities via WhatsApp help learners to improve speaking skills.	3.83	.79	agree
The speaking activities via WhatsApp help learners to relieve stress and make they dare to speak.	3.73	.98	agree
The speaking activities via WhatsApp increase learners' confidence in speaking.	3.70	.88	agree
The speaking activities via WhatsApp help learners to improve their speaking skills better than studying in the classroom.	3.60	.81	agree

Overall, the participants showed their positive responses to the development of their oral accuracy from the MDA intervention. Based on the development of participants' accuracy, they agreed that the interaction between students and the teacher while they were doing activities through WhatsApp helped them to improve their speaking skills ($M=3.83$, $SD=0.79$) and agreed that they relieved their stress and that it encouraged them to speak English ($M=3.73$, $SD=0.98$). Furthermore, MDA helped them to increase their confidence in speaking ($M=3.70$, $SD=0.88$) and MDA was better than studying in the classroom in terms of developing their accuracy ($M=3.60$, $SD=0.81$).

Table 10: Learning Affordances during the MDA Intervention

Perception of the participants	Mean	SD	Evaluation Criteria
Talking activity via WhatsApp is a learning resource with helpful information, pictures, audio, video clips, helping learners to learn better.	4.33	.48	strongly agree
The speaking activities via WhatsApp can promote self-learning.	4.33	.48	strongly agree
The learners can access speaking activities via WhatsApp anytime and anywhere.	4.27	.52	strongly agree
The exchanged opinions and questions can be done freely via WhatsApp.	4.17	.65	agree

As seen in Table 10, the results illustrated the strong agreement in most items. The participants strongly confirmed that the provided learning resource such as information, pictures, audio, and video clips can help them to learn better ($M=4.33$, $SD=0.48$) and MDA promoted self-learning highly ($M=4.33$, $SD=0.48$). Moreover, they strongly agreed that they could join the speaking activities via WhatsApp anytime and anywhere ($M=4.27$, $SD=0.52$). They agreed that they could exchange their opinions and ask questions independently via WhatsApp ($M=4.17$, $SD=0.65$).

Table 11: The reinforcement from a teacher

Perception of the participants	Mean	SD	Evaluation Criteria
Teachers' suggestions while doing speaking activities via WhatsApp were helpful for improving speaking skills.	4.10	.80	strongly agree
Teachers' suggestions while doing speaking activities via WhatsApp were appropriate for speaking levels.	4.10	.80	strongly agree
Teachers' suggestions while doing speaking activities via WhatsApp helped learners to review their prior knowledge.	4.10	.71	strongly agree
Teachers' suggestions while doing speaking activities via WhatsApp could motivate the learners to improve speaking skills.	3.70	.88	agree

In terms of the scaffolding process from the teacher, the participants showed strong acceptance toward the suggestions during interactive conversations through WhatsApp that were helpful for improving their speaking skills ($M=4.10$, $SD=0.80$). They were appropriate for their speaking levels ($M=4.10$, $SD=0.80$). The suggestions from a teacher during the interaction through WhatsApp greatly helped students to recognize their previous information ($M=4.10$, $SD=0.71$). In addition, the support from the teacher encouraged students to improve their speaking skills ($M=3.70$, $SD=0.88$).

4.2.2. Qualitative data from the interview

The study also investigated the findings in depth from the qualitative data to explore the findings in depth. The content analysis was done to examine the data from the interviews in order to answer to RQ2 and provided additional support for the quantitative conclusion. The interview questions were divided by the researcher based the following four categories.

The reinforcement from a teacher

The interview data revealed that the students had a positive perception of the reinforcement from a teacher. They revealed that the eight steps were helpful for improving oral accuracy. They agreed that the suggestions from the teacher made them realize the errors

and mistakes of their speaking and this allowed them to improve the speaking accuracy by correcting the mistakes. In addition, they made the students realize the existing knowledge which they have forgotten and this added their new knowledge from revising the lessons based on their mistakes and errors. They revealed that their speaking mistakes in some areas decreased after 2-3 weeks because they were exposed to the language practice via this MDA activities. Moreover, most of them agreed that this MDA activity improved their confidence by providing them learning opportunities to converse with the teacher outside of the classroom. Some excerpts from the interviews are shown as follows:

“Teacher’s suggestions helped me to recognize the previous knowledge and correct my errors.” (Low English Proficiency Student 13)

“I can improve my skill from this activity such as pronunciation, grammar usage, and confidence.” (High English Proficiency Student 6)

When asked about the step that they think is helpful to increase oral accuracy, most of the students agreed that all hints have their value to develop oral accuracy. The top steps (Steps 5-8) allowed them to analyze their answers by themselves; on the other hand, the initial steps (Steps 1-4) gave them more detail, which was helpful for lower-proficiency students. From the data, students in the high-level group seemed to agree that steps 3,4 and 5 are useful for them to find the errors and gave some opportunities for them to search the information for revising their responses. Some excerpts from the interviews are shown, as follows:

*“Mentioning just some parts of sentence is good for me. I can analyze my errors which I forgot and improve my answers by myself”
(Low English Proficiency Student 1)*

On the other hand, Steps 5 and 8 were useful for students in the low proficiency group because these steps were quite specific about locating types of errors. Step 5 helped students to point out the mistake and they could search a particular point of errors. Step 8 was explanation and it was clear for students who tried to understand the correct answers and why they were considered errors. Some excerpts from the interviews are shown as follows:

“I really didn’t know the correct answer, the clarification from the teacher was really helpful for me” (High English Proficiency Student 7)

Learning Affordances during the MDA Intervention

Teacher suggestions, clips, pictures, and audio were reflected in the students' positive perception. Some students agreed that using WhatsApp for speaking skills and the intervention, including timely feedback from the teacher with extra learning resources, were useful and they could access these learning resources easily.

"It's easy for me to access the information when I don't understand the lesson and can learn it again and again until I understand [the lesson]." (Low English Proficiency Student 18)

Moreover, some students realized that their English-speaking skills improved from teacher's responses individually. In addition, providing information, pictures, audio, and video resources from a teacher on WhatsApp could promote their learning via the teacher-student interaction. An excerpt from the interviews is shown, as follows:

"Videos, tips and audio files which were posted on WhatsApp also assisted me in improving speaking skills." (High English Proficiency Student 4)

The development of students' accuracy

The data from the interviews also confirmed the development of students' oral accuracy after MDA process. The students agreed that MDA could help them learn with the scaffolding process in MDA. Through MDA, they needed to realize what they were going to say and using appropriate words and grammar for particular purposes to construct the sentences before they recorded their voice. The processes in MDA did not provide a memorizing activity but allowed students to practise speaking according to any situation in every week and their speaking would be developed gradually in each week. They learnt from the mistakes and errors and could produce sentences when they used language in the future. Students wanted to develop their speaking and enjoyed learning English. An excerpt from the interviews is shown as follows:

"I remember all mistakes and errors what I did last week and I will not do it again next time." (Low English Proficiency Student 7)

In addition, this MDA activity also influenced students' pronunciation because they listened authentic pronunciation from the teacher. Then, they could follow the pronunciation and spoke more confidently. Without doubt, the MDA could increase the students' confidence when they spoke English because they said they did not have an opportunity to practise

speaking when they were outside the classroom. However, one of the participants said that this activity put pressure on him to pronounce sentences correctly. The excerpt from the interviews is as follows:

“It is hard for me to pronounce some words correctly that made me feel pressured.” (Low English Proficiency Student 15)

The effectiveness of MDA intervention

In general, the participants believed that they could increase their oral accuracy from the hints that the teacher provided from the implicit to explicit steps. This activity allowed the participants to realize their actual English-speaking level when they constructed the sentences and improved their mistakes through the provided suggestions and learning sources on WhatsApp. With this process, the students could realize the development of their speaking skills in each week by getting exposed to language. An excerpt from the interviews is shown below:

“I think this activity is good. The processes were designed to support for developing my speaking” (High English Proficiency Student 2)

4.3 Discussion

This study tried to investigate the effectiveness of MALL-based intervention on Thai EFL learners’ oral accuracy and perceptions toward applying mobile-based dynamic assessment to develop oral accuracy. More details on these and some possible justifications are given below.

4.3.1 RQ1

The findings showed that learners in the same group had a significant improvement in oral accuracy after the MDA intervention. The findings supported previous findings which revealed the favorable effects of MALL-based intervention of oral accuracy. (Ashraf et al., 2016; Rezaee et al., 2020; Tarighat & Khodabakhsh, 2016). However, it found no significant difference in the development between the participants between the high and low English proficiency level groups. It can be stated that the MDA intervention could level up learners’ accuracy of learners in different English levels with effectiveness. There are several possible explanations for the results.

4.3.1.1 The opportunity for speaking English

In the intervention on WhatsApp, the scaffolding process (Lantolf & Poehner, 2011), via their mobile devices allows students to interact with the teacher as an MKO such as to respond to the speaking tasks. The students did so by recoding their voice with their background information via WhatsApp and the opportunity for speaking seems to be laborious in Thai EFL classrooms due to time limitation and class sizes. The positive results in this study may be explained by the fact that these interactions in the scaffolding process provide learning opportunities for using language both inside and outside the classroom and this can bridge the skill-gap of both learners and teachers as aligned with Godwin-Jones (2011).

Not only the scaffolding process, but also MALL helps provide the opportunity in order for learners to practice oral accuracy as an intermediary. Kukulska-Hulme and Shield (2008) explain mobile phones will be able to connect the internet which will help learners in terms of accessibility, and interactivity by using mobile application (Liu, Tan, & Chu, 2009). With the effective functions of MALL, the connection of mobile devices is the important features in terms of the opportunity for speaking. For connectivity, the mobile system must be able to connect and communicate with WhatsApp. Learners can access social networks and an opportunity to practice English language skills at their own pace (Kukulska-Hulme, 2018).

4.3.1.2 Learning resources on WhatsApp

The highlighted feature of WhatsApp is to support language learning through multiple channels of communication, providing information through audio, video, text, image and interactive features of mobile devices and this feature is appropriate for language learning to enhance EFL learners' oral accuracy (Sun et al., 2017a). This research study took the advantages of this feature as technology affordance and applied in the learning process for five weeks. The teacher provided the information, tips, videos, pictures as learning resources which encouraged learners to develop learners' oral accuracy via WhatsApp through many types of communication channels and resources. This might be the possible explanation for the oral accuracy development of Thai students in this study and this result also is in the same ways as the previous studies (Kamasak et al., 2021; Xu, 2020) which examined at language learning improvement suggested for the value of MALL by utilizing the audio, video, text, image, and interactive features of mobile devices.

Another possible explanation for the learners' development of oral accuracy via MDA is that the students are able to access learning resources on WhatsApp in their continuity of learning between different settings and it also supports individual learning desire (Kukulska-Hulme, 2018) according to their strength and weakness in order to develop oral accuracy. This

is suitable for the students who might have different language levels. They can choose to study and revisit the contents which they do not understand clearly and can repeat as much as they want according to their own learning pace without waiting for classroom activities at school. As mentioned, this also is the possible reason why MDA levels up learners' accuracy in both English levels with approximate effectiveness for both groups without any difference.

4.3.1.3 Flexible time and place

In this research study, the MDA processes were designed to support learning both inside and outside the classroom via WhatsApp. Time and place might be the important keys which help the students develop oral accuracy. WhatsApp can provide learners with timely and portable functions in learning, allowing for speaking practice and private feedback from teachers (Amelia, 2019). Students can access voice and text information and social networks immediately, providing flexible time and place in learning (Kukulka-Hulme, 2018). If the learning tools can be moved, the students can also take their learning materials with them beyond the boundaries of place and time. (Huang & Sun, 2010).

To improve oral accuracy, it enables students to access educational resources such as audio, video, texts, and images on WhatsApp without the limitation of time and place (Kukulka-Hulme & Traxler, 2007) through exposure to the target language easily. As Godwin-Jones (2021) mentioned that using WhatsApp as the intermediary in interactions between learners and the teacher can support collaborative learning because WhatsApp can facilitate language learning through a variety of communication channels that help learners to enhance their oral accuracy. The students can manage time and place to learn or practice and this situation provide a comfortable environment for learning which are key factors in helping learners succeed in learning the language with MALL (Miangah and Nezarat, 2012).

4.3.1.4 The teacher's assistance as scaffolding process

One of the important missions was done by the teacher in this this project is providing feedback (hints) during the intervention through the scaffolding process (Lantolf & Poehner, 2011) and this helps the students to develop their oral accuracy according to their response to the feedback which indicated their true language level. The feedback as successive hinting steps adapted from Lantolf and Poehner (2011) were provided in the treatment section. Their moves are ordered from most implicit (saying again) to most explicit (explanation) steps through WhatsApp. Their movements depend on the errors in student's responses and the teacher as an MKO via WhatsApp can move the hints in order to fit students' current level of performance through providing suitable feedback as a learning step to level up their development of oral accuracy. In addition, the teacher made students realize their strengths and weaknesses with the

assistance that helps the learners identify their current level of speaking performance in line with the notion of ZPD. As mentioned, it is a possible reason that each student would get the different responses based on their English levels and these appropriate responses with their English levels help level up learners' oral accuracy in both English levels for both groups without any difference.

4.3.2 RQ2

In RQ2, which addressed learners' perception of the MDA activities, the results and findings showed positive responses in general. With the effectiveness of MDA in this study, it is according to the positive perceptions of students toward MDA for improving oral accuracy as mentioned in previous studies (Cacchione, 2015; Ebadi & Bashir, 2021). The possible explanations on the effectiveness of the mobile-based dynamic assessment are clarified below based on four subheadings:

4.3.2.1 The effectiveness of MDA

A possible reason to clarify the agreement in the effectiveness of MDA according to students' perception is the scaffolding guidelines adopted from Poehner and Lantolf (2005), in which their moves were ordered from most implicit to most explicit steps by the teacher. The teacher can adjust the level of mediation to fit a student's current level of performance or based on their Zone of Proximal Development (ZPD). This could be possible through technology affordance of WhatsApp in which students can learn and evaluate themselves at the same time while they complete a task until they responded with the correct answer. These scaffolding process helps students realize their weakness or strength and their true speaking level. With these reasons, students seem to agree that the MDA process on WhatsApp can better reflect their speaking level.

Another reason is the effectiveness of WhatsApp (Akkara et al., 2020; Andújar-Vaca & Cruz-Martínez, 2017); Tahounehchi, 2021). Learners can access timely learning resources such as text messages, photos, and video files anytime and anywhere (Sibplang, 2021). They can learn and practice oral accuracy with provided different learning resources on WhatsApp. Therefore, the learners agree that WhatsApp is interesting in language learning and that it should be used to develop oral accuracy in the future.

4.3.2.2 The development of learners' accuracy

According to the students' perception, they agreed that MDA could help them to develop oral accuracy with the use of scaffolding and learning resources on WhatsApp. WhatsApp as one of the educational applications provides the opportunity for speaking to Thai

EFL learners who feel unconfident in speaking by recording and sending their voice to the teacher freely. This means students need not to speak with the teacher by face to face or have a confrontation with the teacher. It helps students relieve stress and anxiety, making them dare to speak, and increase learners' confidence in speaking. In addition, the features of WhatsApp can be leveraged to encourage unconfident learners to personalize their own learning in developing their oral accuracy. Some students may use different time and place to revisit the feedback and get exposure to the target language as they want. Similar to this a recent study by Ebadi and Bashir (2021), the participants showed the complacency toward the voice-based mediation in term of opportunities, confidence, and development. In addition, the teacher's voice influenced learners' confidence when the teachers communicated with the learners.

4.3.2.3 Learning Affordances during the MDA Intervention

For learning affordances during the MDA Intervention, e students strongly agreed that talking activity via WhatsApp is a learning resource with helpful information, pictures, audio, and video clips, helping learners to learn better and can promote self-learning. The possible reason is the use of mobile phones for supporting the language learning. With the timely affordances of WhatsApp as a mobile app, the teacher and learners can communicate and access information without the restriction of time and place. In addition, WhatsApp on a mobile phone supports language learning through multiple communication channels providing interactive feedback and additional information through audio, video, texts, and images for both groups and individuals to enhance speaking skills (Kukukska-Hulme & Shield, 2007). This approach is aligned with the daily life of Thai EFL learners who have mobile phones to access information, so providing the learning space wherever and whenever they want could help them to improve language skills (Miangah & Nezarat, 2012).

4.3.2.4 The reinforcement from a teacher

For the reinforcement from a teacher, the students strongly agreed that teachers' suggestions while doing speaking activities via WhatsApp helped improve speaking skills and can helped learners to review their prior knowledge. The possible reason is the use of WhatsApp as a mediator in MDA process. In addition, using WhatsApp can support collaborative learning (Godwin-Jones, 2011) as the intermediary in interactions between learners and the teacher because WhatsApp can facilitate language learning through a variety of communication channels. Collaborative learning between a teacher and learners to improve learners' speaking skills as aligned with Agnes Kukukska-Hulme and Lesley Shield as cited in Godwin-Jones (2011).

In summary, the results of this study indicated that the MALL-based dynamic assessment intervention had a significant positive effect on developing oral accuracy of Thai EFL young learners in both levels: high and low English proficiency level and the MDA intervention could level up learners' accuracy in both English levels with approximate effectiveness for both low and high English proficiency groups without any difference. This result suggests that the MDA intervention could be used to develop the students in both levels: high and low English proficiency level in language learning.

In addition, the qualitative and quantitative data provide a positive effect on students' perception of developing oral accuracy in terms of learning affordances during the MDA intervention, the reinforcement from a teacher, the effectiveness of MDA and the development of learners' accuracy. It fills a gap in the lack of formal research in a Thai EFL context by offering empirical proof. If a MALL-based intervention was planned properly, it can enhance Thai EFL oral accuracy.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The objective of this research tried to investigate the effectiveness of the MDA intervention on Thai EFL learners' oral accuracy via using WhatsApp between two different English levels, high English proficiency and low English proficiency and students' perception toward MDA intervention. The results showed that using the MDA could level up learners' accuracy despite their different English levels, and they also showed the positive perception toward MDA. These studies also provide vital insights on how to make the best use of accessible mobile devices in the classroom. Due to the school closure policy imposed by the Covid-19 pandemic, Thai EFL teachers are currently required to engage in online teaching practices. They are expected to utilize technology into their online teaching practices (Lao, 2020). This is practicable in a Thai school setting if the MDA intervention is correctly developed in a technologically enhanced learning environment. This study could also expand on Wongsuriya (2020). According to Wongsuriya's (2020) research, young Thai language learners can improve their oral accuracy and pronunciation by using mobile applications. It also clarified about the necessity of teachers in enhancing young Thai students' oral accuracy in learning English.

5.2 Implications from the study

The MDA-based intervention demonstrated its efficacy in improving oral accuracy in a Thai EFL environment in this study. This study explains how to create a MALL-based intervention using a mobile device to scaffold EFL learners in order to develop oral accuracy. With provided an opportunity, Thai EFL students can practice speaking from the interaction with the teacher through MDA intervention as a scaffolding process. The teacher can use WhatsApp as a mediator in MALL while assisting the DA process to deliver feedback in the form of scaffolding based on the ZPD of individual students in order to boost learners' oral accuracy. With the capable features of WhatsApp, the teacher and students can interact in the peer collaboration and get responses without restriction of time and place. School administrators, educators and teachers should work together to leverage the use of mobile

devices, especially mobile phones in the school setting in proper manners in order to enhance learning among EFL learners instead of banning the use of mobile phones for every activity in classroom contexts.

As an extension of class discussion, the teacher can offer a collaborative setting and an opportunity for students to practice speaking English in the designed activity. This also provides teachers to give students extra training and evaluate their progress in learning. In addition, the teacher and students can associate with speaking tasks to identify the current level of performance from students' tasks beyond the classroom wall. One implication is that teacher development should be supported from the authority in providing them not with sufficient trainings but also proper mindset of how to integrate the technology into classroom practice. Without these, teacher development would not be possible.

Taken together, the findings imply that a MALL-based intervention should be a priority for Thai EFL teachers and policy makers to leverage the practical implication of daily mobile devices in pedagogical practices for educational targets.

5.3 Recommendations for future studies

Based on this study, the author provides recommendations for future study.

5.3.1 To determine the effects of MALL-based intervention on other aspects of speaking skills, such as fluency and complexity after receiving the MALL-based intervention, further research needs to be done.

5.3.2 Other skills such as writing, listening, and reading should be considered in future studies. The researcher should apply the MALL-based intervention to enhance these skills to verify the effect of MDA in other skills.

5.3.3 Gender should be considered in future research because it might be one of the factors to point some different results or provide more detail of MALL-based intervention.

5.3.4 In order to confirm the effectiveness of MALL-based intervention, it should be applied in other levels of Thai learners, including primary students or tertiary level students.

5.3.5 With the various applications presently, the researcher can utilize others such as Line, Facebook Messenger, Telegram Messenger, and WeChat as a mediator between teachers

and learners in MDA process. With different functions of them, it might provide a different result.

5.3.6 An English language level test for indicating students' English level should be relative to the target skill. In this study, a general English proficiency test is used to group the participants into low and high groups. A speaking text should be used to measure their level in the future. Therefore, using English language level with particular speaking test that might illustrate the different result and appropriate with the target of this study.

5.3.7 The oral test and five speaking tasks of this study should parallel with the language teaching in the classroom which provided the background information before doing oral test and oral tasks.

5.3.8 The types of errors in oral accuracy should be examined in the future to indicate that MDA could help to improve mostly.

5.4 Limitations

One difficulty for applying this approach is the teacher's workload increases with a large class. With the large number of students who participate in oral activities via WhatsApp at the same time. The teacher may take a longer time to assess each student's response which could slow down the speed of providing feedback. In addition, it is important to be aware of the restriction with a stable internet connection in some local situations for future planning. Students may encounter with difficulty uploading voice data due to unstable internet connections.

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APPENDICES

Appendix A Ethical approval

Ethical approval



Certificate of Approval of Human Research Ethics
Center for Social and Behavioral Sciences Institutional Review Board,
Prince of Songkla University

Document Number: 2020 PSU – St – Qn 016

Research Title: Using Mobile-based Dynamic Assessment to Develop Thai EFL Learners' Oral Accuracy

Research Code: PSU IRB 2020 – PSU – St 016

Principal Investigator: Miss Piyaporn Phetsut

Workplace: Master of Arts Program in Teaching English as an International Language, Faculty of Liberal Arts, Prince of Songkla University

Approved Document:

1. Human Subjects
2. Instrument
3. Invitation and Informed Consent

Approved Date: 4 December 2020

Expiration Date: 4 December 2022

This is to certify that the Center for Social and Behavioral Sciences Institutional Review Board, Prince of Songkla University has approved for Ethics of this research in accordance with Declaration of Belmont. And please report the research result every year in the AP-DDT form.

Sasitorn Phumdoung

(Professor Dr. Sasitorn Phumdoung)
Committee Chairman of Center for Social and Behavioral Sciences
Institutional Review Board, Prince of Songkla University



Appendix B Survey Questionnaire

รหัสนักเรียน.....

แบบสำรวจนักเรียนผู้มีโทรศัพท์มือถือ

คำสั่ง จงทำเครื่องหมาย ✓ ในช่องที่ตรงกับข้อมูลของนักเรียน

1. นักเรียนมีโทรศัพท์มือถือหรือไม่

(ถ้าตอบ “ไม่มี” ไม่ต้องทำข้อที่เหลือ ถ้าตอบว่า “มี” ให้ทำข้อต่อไป)

มี

ไม่มี

2. นักเรียนมีแพ็คเกจอินเทอร์เน็ตบนโทรศัพท์มือถือหรือไม่

มี

ไม่มี

3. นักเรียนสามารถนำโทรศัพท์มือถือมาโรงเรียนได้หรือไม่

ได้

ไม่ได้

4. นักเรียนสามารถใช้โทรศัพท์มือถือที่โรงเรียนได้หรือไม่

ได้

ไม่ได้

5. โทรศัพท์มือถือของนักเรียนสามารถเชื่อมต่อ Wi-Fi ได้หรือไม่

ได้

ไม่ได้

6. นักเรียนทราบหรือไม่ ว่ามีการให้บริการ Wi-Fi ของโรงเรียนโดยไม่เสียค่าใช้จ่าย (ฟรี)

ทราบ

ไม่ทราบ

7. นักเรียนเคยใช้บริการ Wi-Fi ฟรีที่โรงเรียนหรือไม่

เคย

ไม่เคย

ขอบคุณที่สละเวลาทำแบบสำรวจ

Appendix C English Language Level Test

English Language Level Test for Students
in Elementary Level (A2)

Name:

.....

Class: Student number:

.....

About the test:


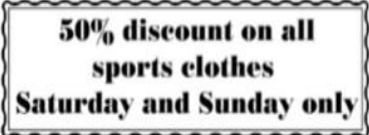
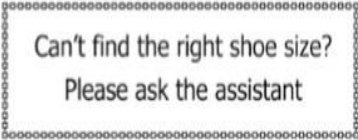


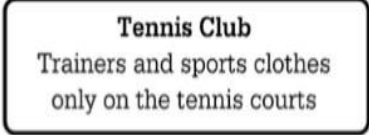
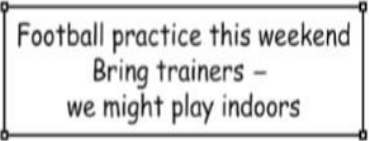
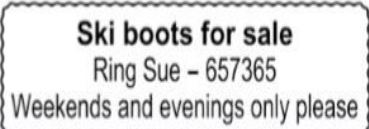
- The test is used to measure your English proficiency.
- The test consists of 30 items.
- You must mark your answers on the separate answer sheet.
- Time : 50 minutes

This test is adapted from Cambridge English Key Level A2 (2016)

Questions 1 – 5

Which notice (A – H) says this (1 – 5)?

For questions 1 – 5 (Column A), mark the correct letter A – H (Column B) on your answer sheet.

Column A	Column B
1. If you buy enough of these, you will get one free.	A 
2. These will cost less at the weekend.	B 
3. When you play here, you always need to wear the right things.	C 
4. Speak to this person if you need some help.	D 
5. You have to take these off before you enter this place.	E 
	F 
	G 
	H 

Questions 6 – 10

Read the sentences about **Ravi's barbecue**.

Choose the best word (A, B or C) for each space.

For questions 6 – 10, mark A, B or C on your answer sheet.



6. It was a great for a barbecue.

A. weather

B. day

C. temperature

7. Ravi a big table and some chairs in the garden.

A. did

B. put

C. held

8. Ravi had some of chicken to cook on the barbecue.

A. sides

B. parts

C. pieces

9. Everybody and chatted while they were eating their food.

A. laughed

B. enjoyed

C. pleased

10. Nobody wanted to because they were having such fun.

A. leave

B. close

C. end

Questions 11 – 15

Complete the five conversations.

For questions 11 – 15, mark A, B or C on your answer sheet.

11. How do you eat this?
- A. In this restaurant.
 - B. With a spoon.
 - C. It's lovely.
12. Let's go to the cinema this evening.
- A. We don't have any film.
 - B. You went to the theatre.
 - C. I've seen the film already.
13. Do you know why they came here?
- A. To meet Josie.
 - B. For two weeks.
 - C. On their way home.
14. I'm really sorry about breaking that plate.
- A. I'd like you to.
 - B. Yes, you were.
 - C. That's all right.
15. I feel very cold in here, don't you?
- A. Did you go out in the rain?
 - B. I don't think there is.
 - C. Shall I close the door?

Questions 16 – 22

Read the article about a theatre school.

For questions 16 – 22, mark A, B or C on your answer sheet.

My Theatre School

I've been an actor for thirty years, since I was ten, and four years ago I started a theatre school. It's open every Saturday and Sunday and I help there when I'm not in a play.



I got the idea for the school at a party. I was talking to a few friends, who said how difficult it is for young people who want to be actors. I didn't study in a theatre school, but it didn't matter because I learned by working in different theatres. But now, because a lot of these have closed, not many young people can do this.

My school is open to anyone, of any age, who wants to act. You don't have to be the world's best actor or singer and at the moment we have students from eight years old to twenty-six. Our teachers are actors themselves. I can't pay them anything but they come because they like being with the students and helping them. My twelve-year-old daughter, who sings beautifully, goes to the school. Last month she wanted to be an actor, but now she says she wants to be a police officer!

The school is hard work because it's getting bigger with more new students every week. It takes all my free time but I like being busy and it has become a special part of my life.

16. When does the writer go to the theatre school?

- A. every Saturday and Sunday
- B. from Monday to Friday
- C. on her free weekends

17. Who made the writer decide to start a theatre school?

- A. some friends
- B. young people
- C. teachers

18. What is the problem today for young actors?
- A. The schools for actors are full.
 - B. Acting is a difficult thing to learn.
 - C. Many theatres are not open any more.
19. Everyone who goes to the writer's school
- A. has to be very good at singing.
 - B. is hoping to work in the theatre.
 - C. must be older than eight years of age.
20. Actors agree to teach at the school because they want
- A. to work with young people.
 - B. to earn a little more money.
 - C. to get better at their job.
21. At the moment, the writer's daughter wants to be
- A. a singer.
 - B. an actor.
 - C. a police officer.
22. How does the writer feel about the theatre school?
- A. She hasn't got enough time for it.
 - B. It's very important to her.
 - C. It has too many students.

Questions 28 – 35

Read the article about a boat called Tara. Choose the best word

(A, B or C) for each space.

For questions 23 – 30, mark A, B or C on your answer sheet.

The boat Tara

The sailing boat Tara, was part of a science project to learn about the air, sea and ice in the Arctic. The scientists could not build a camp on the Arctic ice because it was too dangerous. (23) decided to use Tara as a camp instead and (24) September 2006, the scientists sailed the ship into the ice.



This is (25) the ship stayed for many months.

Soon Tara was caught in the ice. The boat (26) with the ice, and travelled over 5,200 kilometers. (27) that time the boat crossed the North Pole. The scientists could hear the ice making strange noises (28) they did not worry too much. On the 500th day in the ice they (29) had a small party. Then, (30) four days later, the ice broke and Tara was free.

- | | | | |
|-----|----------|----------|-----------|
| 23. | A. It | B. He | C. They |
| 24. | A. to | B. in | C. at |
| 25. | A. where | B. which | C. when |
| 26. | A. moves | B. moved | C. moving |
| 27. | A. Until | B. Since | C. During |

28. A. but B. if C. because
29. A. often B. already C. even
30. A. quite B. just C. still

(End of the test)

Appendix D Oral pre-test and oral post-test

Oral pre-test and post-test (based on students' book)

Directions

1. The oral test consists of three tasks. You have to respond three tasks and submit your answers to the teacher **via your WhatsApp account**.
2. Your answers will be submitted in an hours after you get the oral test.
2. You have three minutes to complete a task (nine minutes for all tasks).
3. After you send your answers via WhatsApp, you will receive the confirmation from the teacher via WhatsApp. Then, you have completed the test.

Task 1 (3 minutes)

Directions: Read the situation below carefully and make your suggestion.

Situation: You have a friend who has a presentation in the afternoon. Now, she is very **anxious**. What do you suggest to your friend to reduce her anxiety?



Task 2 (3 minutes)**Directions: Look at the picture below and tell a short story.**

Task 3 (3 minutes)

Directions: Look at the picture below and tell a short story.



Appendix E Speaking tasks

Speaking tasks (based on the students' book)

Purpose of speaking tasks:

To practice students in order to develop oral accuracy

Directions

1. The speaking tasks consist of five tasks for five weeks (a task per week).

You have to respond each task and submit your answers to the teacher **via your WhatsApp account**.

2. You have three minutes to complete each task.


3. After you submit your answer, the teacher will provide the clues or feedback. Then, you have to correct your errors according teacher's clues or feedbacks.

4. In orientation section, you will be assigned to test your voice message and send it to a teacher via WhatsApp.

Table 1: Speaking tasks and contents in the classroom

Week	Contents in classroom	Tasks
1	Orientation	You are asked to create your WhatsApp account by using your student ID as your account name and record your self-introduction.

Week	Contents in classroom	Tasks
		Then, you send it to the teacher via WhatsApp.
2	Unit 1 : Let's talk <ul style="list-style-type: none"> - Communication verb - Social network - will, might/may + adverb of possibility - First Conditional 	Task 1: Express the advantages of social network
3-4	Unit 2 : Fears <ul style="list-style-type: none"> - Fears - Be going to/will - -ed and -ing adjective - Expressing surprise 	Task 2: Tell what you are afraid of and share your experience Task 3: Make a short story from the given picture

Week	Contents in classroom	Tasks
		
5-6	<p>Unit 3 : School life</p> <ul style="list-style-type: none"> - Life at school - Second conditional - Using make and do - Asking for and giving advice 	<p>Task 4: Share your school life.</p> <p>Task 5: Your friend is worrying about her grades that are lower than last semester. Give your advice to your friend.</p>

Appendix F Perception Questionnaire

รหัสนักเรียน

แบบสอบถามทัศนคติของนักเรียนต่อกิจกรรมพูดโต้ตอบผ่าน WhatsApp

วัตถุประสงค์: เพื่อสำรวจทัศนคติของนักเรียนหลังจากทำกิจกรรมพูดโต้ตอบผ่าน WhatsApp

คำสั่ง: แบบสอบถามประกอบด้วยชุดคำถามสามส่วน

ส่วนที่ 1: ข้อมูลทั่วไป

ส่วนที่ 2 : แบบวัดทัศนคติของนักเรียนต่อกิจกรรมพูดโต้ตอบผ่าน WhatsApp ซึ่งออกแบบโดยผู้วิจัย

ส่วนที่ 3 : ข้อเสนอแนะ

ขอความกรุณากรอกข้อมูลและตอบคำถามในทุกส่วนและขอขอบคุณที่สละเวลาตอบแบบสอบถาม

ส่วนที่ 1 : ข้อมูลทั่วไป

คำสั่ง : กรุณาทำเครื่องหมาย ลงใน หน้าข้อความที่นักเรียนต้องการเลือกตรงกับ

ความจริงมากที่สุด

1. เพศ ชาย หญิง

2. นักเรียนมีอุปกรณ์อิเล็กทรอนิกส์พกพาแบบใดบ้าง (เลือกตอบได้มากกว่า 1 ข้อ)

โทรศัพท์มือถือ แล็ปท็อปคอมพิวเตอร์ แท็บเล็ต/ไอแพด

เครื่องเล่นเสียง อื่นๆ.....

3. นักเรียนใช้แพลตฟอร์มอินเทอร์เน็ตบนโทรศัพท์มือถือประเภทใด

รายเดือน รายสัปดาห์ รายวัน อื่นๆ (ระบุ)

4. นักเรียนสามารถเชื่อมต่อสัญญาณ Wi-Fi กับโทรศัพท์จากที่ไหนได้บ้าง

(เลือกตอบได้มากกว่า 1 ข้อ)

โรงเรียน บ้าน ที่สาธารณะ อื่นๆ (ระบุ)

5. ในแต่วันทักเรียนใช้โทรศัพท์มือถือเฉลี่ยกี่ชั่วโมง

น้อยกว่า 3 ชั่วโมง 3 - 5 ชั่วโมง 6 - 8 ชั่วโมง 8 ชั่วโมงขึ้นไป

6. นักเรียนใช้โทรศัพท์มือถือในช่วงเวลาใดบ้าง (เลือกตอบได้มากกว่า 1 ข้อ)

ช่วงระหว่างคาบเรียน ช่วงว่าง
 ช่วงทำการบ้าน อื่นๆ (ระบุ)

7. การใช้งานโทรศัพท์มือถือของนักเรียนมีลักษณะอย่างไร

คำสั่ง: กรุณาทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับการใช้งานโทรศัพท์มือถือของนักเรียนมากที่สุด

การใช้งาน	ระดับความบ่อย (ต่อวัน)			
	4 ทุกครั้ง	3 บ่อยครั้ง	2 บางครั้ง	1 นาน ๆ ครั้ง
1. ใช้การค้นหาข้อมูล				
2. ใช้แปลคำศัพท์				
3. ใช้การบันทึกเสียง				
4. เรียนออนไลน์				
5. ใช้ในการโทรออกและรับสาย				

การใช้งาน	ระดับความบ่อย (ต่อวัน)			
	4 ทุกครั้ง	3 บ่อยครั้ง	2 บางครั้ง	1 นาน ๆ ครั้ง
6. ใช้พูดคุยทางเครือข่ายสังคมออนไลน์ (เช่น Facebook, Line)				
7. ใช้ติดตามข่าวสาร				
8. ใช้ในการดูหนังหรือวิดีโอคลิป				
9. ใช้ในการฟังเพลง				
10. ใช้ในการถ่ายรูป				

ส่วนที่ 2 : แบบสอบถามทัศนคติของนักเรียนต่อกิจกรรมพูดโต้ตอบผ่าน WhatsApp (20 ข้อ)

คำสั่ง : จงทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับความคิดเห็นของนักเรียนมากที่สุด

ข้อความ	5 เห็นด้วยมากที่สุด	4 เห็นด้วยมาก	3 เห็นด้วยปานกลาง	2 เห็นด้วยเล็กน้อย	1 เห็นด้วยน้อยที่สุด
1. กิจกรรมพูดโต้ตอบผ่าน WhatsApp สามารถสะท้อนระดับทักษะการพูดที่แท้จริงของฉันได้					
2. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยฉันพัฒนาทักษะการพูด					
3. ฉันคิดว่ากิจกรรมพูดโต้ตอบผ่าน WhatsApp สามารถทำได้ทุกที่ทุกเวลาที่ฉันสะดวก					

ข้อความ	5 เห็นด้วยมากที่สุด	4 เห็นด้วยมาก	3 เห็นด้วยปานกลาง	2 เห็นด้วยเล็กน้อย	1 เห็นด้วยน้อยที่สุด
4. คำแนะนำและข้อมูลจากครูเพื่อพัฒนาทักษะการพูดระหว่างโต้ตอบผ่าน WhatsApp เป็นประโยชน์ต่อการพูดของฉัน					
5. กิจกรรมระหว่างพูดโต้ตอบผ่าน WhatsApp ช่วยให้ฉันทราบจุดบกพร่องในการพูดของฉัน					
6. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยพัฒนาทักษะการพูดของฉันได้ดีกว่าการเรียนในห้องเรียน					
7. ฉันสามารถควบคุมการเรียนรู้ผ่าน WhatsApp ด้วยตนเอง					
8. คำแนะนำและข้อมูลจากครูระหว่างทำกิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยกระตุ้นความรู้เดิมของฉัน					
9. ฉันสามารถพัฒนาทักษะการพูดได้ดีขึ้นเมื่อครูช่วยผ่านทาง WhatsApp					
10. กิจกรรมพูดโต้ตอบผ่าน WhatsApp มีความน่าสนใจ					
11. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยสร้างความมั่นใจของฉันให้เพิ่มมากขึ้น					
12. WhatsApp เป็นตัวกลางช่วยประหยัดเวลาและสะดวกต่อการเรียนรู้					
13. ครูให้ผลสะท้อนกลับผ่าน WhatsApp อย่างรวดเร็วและมีประสิทธิภาพ					

ข้อความ	5 เห็นด้วยมากที่สุด	4 เห็นด้วยมาก	3 เห็นด้วยปานกลาง	2 เห็นด้วยเล็กน้อย	1 เห็นด้วยน้อยที่สุด
14. ฉันรู้ระดับทักษะการพูดของตัวเองจากกิจกรรมพูดโต้ตอบผ่าน WhatsApp โดยไม่จำเป็นต้องทำข้อสอบในกระดาษหรือสอบพูดต่อหน้าครู					
15. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยพัฒนาทักษะพูดตามความสามารถที่ฉันมี					
16. ฉันสามารถแสดงความคิดเห็น/ ถาม/ ได้อย่างอิสระผ่าน WhatsApp					
17. กิจกรรมพูดโต้ตอบผ่าน WhatsApp มีประสิทธิภาพต่อการพัฒนาทักษะการพูดของฉัน					

ขอบคุณที่สละเวลาทำแบบสอบถาม

หมายเหตุ แบบสอบถามถูกออกแบบภายใต้หัวข้อดังต่อไปนี้

1. ประสิทธิภาพในการประเมินผลผ่าน WhatsApp ประกอบด้วยข้อ 1,5,10,14,17
2. ผลกระทบจากกิจกรรมพูดโต้ตอบผ่าน WhatsApp ต่อพัฒนาการด้านการพูดของนักเรียน ประกอบด้วยข้อ 2,6,11,15
3. การใช้งานแหล่งเรียนรู้บน WhatsApp ประกอบด้วยข้อ 3,7,12,16
4. ความช่วยเหลือจากครูผ่าน WhatsApp ประกอบด้วยข้อ 4,8,9,13

Appendix G Semi-structured Interview

แบบสัมภาษณ์เพื่อการวิจัยแบบกึ่งโครงสร้าง
เรื่อง การรับรู้ของนักเรียนต่อกิจกรรมพูดโต้ตอบผ่าน WhatsApp

ส่วนที่ 1 ข้อมูลผู้ให้สัมภาษณ์

1. ชื่อ.....นามสกุล.....

ส่วนที่ 2 การรับรู้ของนักเรียนต่อกิจกรรมพูดโต้ตอบผ่าน WhatsApp

แนวประเด็นคำถาม

1. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ส่งผลต่อพัฒนาการด้านการพูดของนักเรียนอย่างไร

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2. คำแนะนำจากครูที่ส่งผ่าน WhatsApp ในระหว่างทำกิจกรรมช่วยให้นักเรียนพัฒนาทักษะการพูดอย่างไร

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3. คำแนะนำจากครูที่ส่งผ่าน WhatsApp ในระหว่างทำกิจกรรมชั้นใดที่นักเรียนคิดว่าช่วยพัฒนาการพูด เพราะเหตุใด

- ได้แก่
- ขั้นที่ 1 ให้นักเรียนพูดซ้ำ
 - ขั้นที่ 2 ครูอ่านวลีทั้งหมดด้วยน้ำเสียงที่เป็นประโยคคำถาม
 - ขั้นที่ 3 ครูอ่านแค่ส่วนหนึ่งของประโยคที่มีจุดที่ผิด
 - ขั้นที่ 4 ครูชี้ว่ามีจุดที่ผิดในประโยคนี้
 - ขั้นที่ 5 ครูชี้คำที่ผิด
 - ขั้นที่ 6 ครูถามตั้งคำถามโดยให้เลือกตอบ เช่น ให้เลือกคำที่ผิด หรือ ถูก
 - ขั้นที่ 7 ครูบอกคำตอบที่ถูกต้อง
 - ขั้นที่ 8 ครูอธิบายเหตุผลว่าทำไม

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4. ข้อมูล รูปภาพ เสียง คลิปวิดีโอ จากกิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยส่งเสริมการเรียนรู้ของนักเรียนเพื่อพัฒนาทักษะการพูดอย่างไร

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5. กิจกรรมพูดโต้ตอบผ่าน WhatsApp ช่วยประเมินทักษะการพูดของนักเรียนอย่างไร

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ส่วนที่ 3 ปัญหาและอุปสรรค ข้อเสนอแนะ

จากการทำกิจกรรมพูดโต้ตอบผ่าน WhatsApp เพื่อพัฒนาทักษะการพูดนักเรียนคิดว่ามี
ปัญหาและอุปสรรคใดบ้าง

- ปัญหาและอุปสรรค

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-ข้อเสนอแนะ

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Appendix H Guidelines for Teacher's handbook

Teacher's handbook for speaking activity via WhatsApp on mobile phones



Section 1 :

Speaking activity via WhatsApp

Speaking activity via WhatsApp

This activity is a part of English subject (32102) for students in Mathayom 5. The objectives of this activity are to develop students' speaking skills via WhatsApp and also increase the positive attitude in learning English. In order to achieve these goals, students will be provided the information that will be sent by teachers via WhatsApp and will be trained by doing speaking tasks. Moreover, there is an oral test provided before and after doing the activity in order to evaluate student's development.

Details of speaking activity via WhatsApp on mobile phone

1. Orientation

The teacher will be trained to use WhatsApp and how to give feedback by the researcher. Moreover, the criteria for measuring accuracy and guideline for analyzing accuracy will be informed in this section. After training, the teacher gives a task to students in order to check students' understanding how WhatsApp works.

2. Speaking tasks 1-5

They are oral practice tasks of students via WhatsApp after studying the contents in the classroom once a week for 5 weeks in order to evaluate what students have known and how they had known. This part will be done every Thursday at 2.30 p.m.

3. Learning from the provided information via WhatsApp

Students not only do oral tasks but also learn from the contents or techniques that will be provided by the teachers every day in order to support speaking skill of students. All mentioned means students can learn English both in classroom and outside the classroom.

4. Oral pre and post test

It will be provided to students before and after doing the activity. It is designed based on the contents in the classroom in order to evaluate the development of students in speaking skill.

Table 1: Activities that students will do each week.

Week	Activities	Contents
1	Orientation	- How to use WhatsApp and how to give feedback via WhatsApp - The criteria for measuring accuracy and guideline for analyzing accuracy - Assignment: create WhatsApp account and send the student's introduction via WhatsApp
2	Pre-test	Unit 1,2,3
3	Speaking task 1	Unit 1 : Let's talk - Communication verb - Social network - will, might/may + adverb of possibility - First Conditional
4	Speaking task 2	Unit 2 : Fears
5	Speaking task 3	- Fears - Be going to/will - -ed and -ing adjective - Expressing surprise
6	Speaking task 4	Unit 3 : school life
7	Speaking task 5	- Life at school - Second conditional - Using make and do - Asking for and giving advice
8	Post-test	Unit 1,2,3

Steps of doing speaking tasks via WhatsApp

The teacher and students are invited to join a group chat "Learning English M.5" on WhatsApp created by the research. This group consists of 33 members: a teacher, a researcher and 30 students. In this activity, the chat on WhatsApp is divided into 2 sections such as:

1. Group chat (30 students, a teacher and a researcher)
2. Individual chat (a teacher and a student)

Group chat and individual chat will be assigned their role as shown below.

Activity	Group chat	Individual chat
Assignment: students' introductions	-	Respond to students' introductions
Oral pre and post test	Send the instruction for oral pre and post - test.	Send the voice message after doing pre and post-test of students to confirm their sending
Speaking tasks	Send all instructions for Speaking tasks 1-5	Give the feedback to students
Learning from the provided information via WhatsApp	Send the information, suggestions and techniques to improve speaking skills of students every day	-
Other	If students have any problems or questions about provided activities, the teacher can answer the questions or give suggestion.	-

Steps for doing activities in orientation and an assigned task

Role	Steps
Researcher	1. The teacher will be trained to use WhatsApp and how to give feedback via WhatsApp.

Role	Steps
	2. The researcher informs the teacher about the criteria for measuring accuracy and guideline for analyzing accuracy.
Teacher	3. The teacher creates WhatsApp account by using “teacher 1” as an account name of teacher.
Teacher	4. The teacher assigns students to create WhatsApp account by using their student ID as their account name and records their introductions.
Students	5. Students send their introductions to the teacher via WhatsApp.
Teacher	6. The teacher responds to their voice messages.

Steps for doing oral tests before and after activities

Role	Steps
Teacher	1. The teacher sends the instructions for doing oral pre-test/post-test to the group chat.
Students	2. Students read the instructions carefully and complete the test by recording their voice no more than 3 minutes.
Students	3. Students send their voice messages to the individual chat of the teacher in an hour after receiving the instructions.
Teacher	4. Send the voice message after completing pre and post-test of students to confirm their sending.
Teacher	5. The teacher evaluates students’ oral performances by calculating the number of error-free clauses as a percentage of the total number of clauses. (Read more on page 11)

Steps for doing speaking skills activity no. 1-5

Role	Steps
Teacher	1. The teacher sends the instructions for doing oral pre-test/post-test to the group chat.

Role	Steps
Students	2. Students read the instructions carefully and complete the test by recording their voice no more than 3 minutes.
Students	3. Students send their voice messages to the individual chat of the teacher in an hour after receiving the instructions.
Teacher	4. Give feedback to students based on their response. (Read more “how to give feedback”)

Remarks: The researcher will be an observer and will discuss with the teacher if some issues arise during the activities.

How to give feedback via WhatsApp

After students complete a speaking task, the teacher needs to provide some useful feedback for them in order to improve their speaking skill. The feedback will be provided after students send their voice messages to the teacher via WhatsApp until Friday as the end of the practice in each week.

The feedback from a teacher will be divided into 2 case depending on students' performance.

Case 1: The student's response is correct forms. There are no errors in any sentences. The teacher can give students some compliments via WhatsApp.

Case 2: The student's response is incorrect forms. There are some errors in sentences. The teacher will give feedback by following 8 scales to get a correct response from the students. Feedback are ordered from most implicit (repeating) to most explicit (explanation).

Step 1 : Teacher asks students to say again

Step 2 : Repeat the whole phrase questioningly

Step 3 : Repeat just the part of the sentence with the error

Step 4 : Teacher points out that there is something wrong with the sentence

Step 5 : Teacher points out the incorrect word

Step 6 : Teacher asks either/or question

Step 7 : Teacher identifies the correct answer

Step 8 : Teacher explains why via WhatsApp

The example of providing feedback via WhatsApp on mobile phones

Example 1: Share what you did last night

Answer from student 1 :

“I went to the market because my mother ask me to buy some apples. She wanted me to eat them because it is good for my health.”

Steps	The conversation between a teacher and a student
Step 1	T: Say again, please. S: (<i>Say again</i>)
Step 2	T: You went to the market and your mother ask you to buy? S: Yes. My mother ask me to buy some apples.
Step 3	T: Your mother ask you to buy some apples? S: My mother asking me to buy some apples.
Step 4	T: What is wrong with that sentence? S: “asking” is wrong.
Step 5	T: Yes, “asking” is wrong. How can you fix it? S: asks
Step 6	T: asks or asked? S: asked. I went to the market because my mother asked me to buy some apples.
Step 7	T: Yes, “asked” is a correct answer. S: I don’t know why.
Step 8	T: When you are talking about something that has already happened, “ask” must be in the past form.

Example 2: Share your experience in your school

Answer from student 2:

“I am a bookworm so I always am in the library when I have free time. I also like to share learning tips with my friends.”

Steps	The conversation between a teacher and a student
Step 1	T: Again, please. S: (<i>Say again</i>)
Step 2	T: You always are in the library when you have free time? S: Sorry. I am always in the library when I have free time.

According to the example 2, the student 2 can correct the sentence in step 2, so the hint in other steps is not provided to a student. In conclusion, If the student's answer is correct, all hints are not provided. If the student's respond is incorrect form, the teacher follows 8 steps in order to get the correct answer from students.

The criteria used for analyzing students' response in oral pre-test and post-test

The score of students' performances are form the number of clauses without errors divided by the total number of clauses spoken.

Example:

My favorite **is** TV is SAP SAP because it is interesting. It is a very popular **TV**.

1

2

3

Maybe most **of people** in my school **look** it.

4

In the example, students can create 4 clauses. According to 4 clauses, there is only one clause without any grammatical errors, which is the second clause. Therefore, the points will be:

$$1/4 = 0.25 \text{ points}$$

Learning from the provided information via WhatsApp

Another duty of a teacher is to provide the useful information, suggestions and techniques to support speaking skills of students and send to a chat group every day. They can be an audio sound, a video, a short message, a picture and more which relate

to the contents. Moreover, the researcher will support a teacher in this section by sending valuable knowledge.

Conclusion

In the activity, there are four missions the teacher has to do.

1. Evaluate students' performance from oral pre-test and post-test.
2. Give the instruction and feedback of speaking task.
3. Provide information via WhatsApp.
4. Answer the questions or give suggestion, if students have any problems or questions.

Section 2 :

Guidelines for analyzing clause and
errors used of the oral pre-test
and oral post-test

Guidelines for Clause and Errors used in the study

In order to measure oral accuracy of participants from oral pre and post-test, counting the number of error-free clauses per clause is used as a criteria. The rater has to use the guideline, adapted from Polio (1997), in order to identify clause and error precisely.

1. Clause Guidelines

- Clause has two types: an independent clause and a subordinate clause.
- An independent clause is a clause with a finite verb (Foster et al., 2000).
- A subordinate clause included an adverbial clause, an adjective clause, and a nominal clause, and “consisted of a finite or non-finite Verb element plus at least one other clause element (Subject, Object, Complement or Adverbial)” (Foster et al., 2000, p. 366).

- When there were no verbs, subordinate clauses are not counted.

E.g. I like Ayumi because she pretty. = 1 clause

- A clause equals an overt subject and a finite verb. The following are only one clause each:

E.g. He left the house and drove away.

He wanted John to leave the house.

- Only an imperative does not require a subject to be considered a clause.
- In a sentence that has a subject with only an auxiliary verb, do not count that subject and verb as a separate clause.

E.g. John likes to ski and Mary does too.

John is happy and Mary is too.

2. Error Guidelines

2.1. Identify errors according to Error Categories that consist of:

- Errors in syntax
- Error in morphology
- Error in Lexical choice

2.2. Do not count pronunciation error (including word changes like “there/their”).

2.3. Base tense/reference errors on preceding discourse; do not look at the sentence in isolation.

2.4. Don’t count the different usages between British and American English as errors (e.g. “color” = American English , “colour” = British English).

3. Error Categories used in this study

They are divided into three types: (Skehan & Foster, 1997; Yuan & Ellis, 2003)

3.1. Errors in syntax

1. Word order errors
2. Fragment errors
3. Omission of subjects
4. Omission of verbs/actions
5. Omission of objects/compliments
6. ‘There’ structure errors
7. AND-type errors
8. BUT-type errors
9. OR-type errors
10. SO-type errors
11. Noun clause/phrase errors
12. Adjective clause errors
13. Adverbial clause errors
14. Passive voice errors
15. Comparison errors

3.2. Error in morphology

1. Noun form errors
2. Singular/plural errors
3. Pronoun errors

4. Present errors
5. Past errors
6. Subject-verb agreement errors
7. Gerund errors
8. Infinitive errors
9. Model/auxiliary errors
10. Adjective errors
11. Adverb errors
12. Possessive errors
13. Preposition errors
14. Article errors
15. Possessive (determiner) errors
16. Demonstrative errors

3.3. Error in Lexical choice







1. Direct translations
2. Misordering
3. Use of native words
4. Confusion of sense relations
5. Collocational errors
6. Distortions
7. Omissions
8. Additions
9. Confusion of derivatives
10. Redundancy
11. Confusibles
12. Confusion of binary terms



Section 3 :

How to use WhatsApp
for speaking activity

How to use WhatsApp for speaking activity

QR Code for video clips about how to use WhatsApp

Topic	QR Code
1. Installing WhatsApp on a mobile phone (Read more on page 18)	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  For Android </div> <div style="text-align: center;">  For IOS </div> </div>
2. How to create and invite into a group (Read more on page 22)	
3. Invite into groups via links (Read more on page 23)	
4. How to remove group participants (Read more on page 24)	
5. Sending media, documents, location and contacts (Read more on page 24)	

Topic	QR Code
<p>6. Using Voice Messages (Read more on page 26)</p>	
<p>7. Deleting messages (Read more on page 29)</p>	

• Installing WhatsApp on a mobile phone

For Android

Step 1 Download and install WhatsApp.

1. Go to Google Play Store and search "WhatsApp". Select WhatsApp Messenger application by WhatsApp Inc.

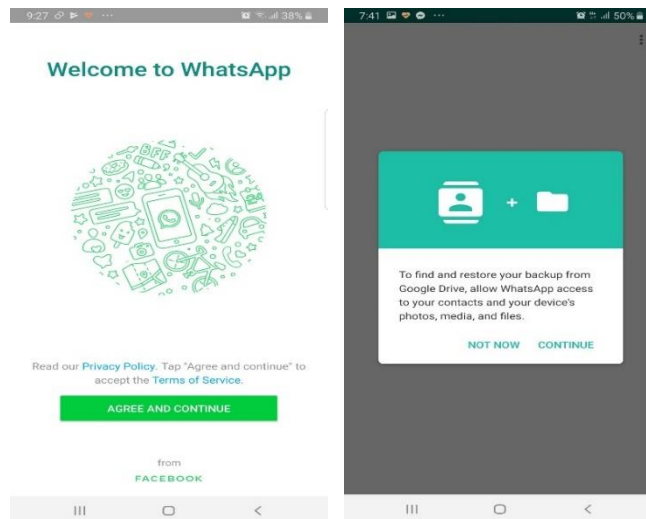


2. After click "Install", you will see a list of functionalities that WhatsApp must access in order to the app work. Click "Accept".

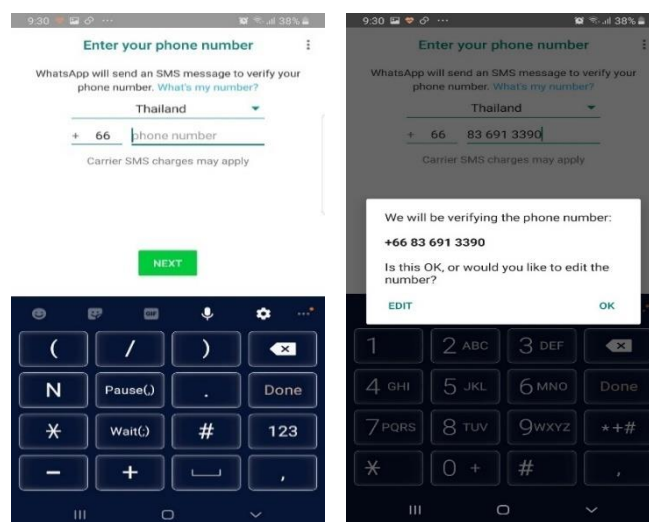
3. WhatsApp is downloaded completely.

Step 2 Register and confirm your phone number

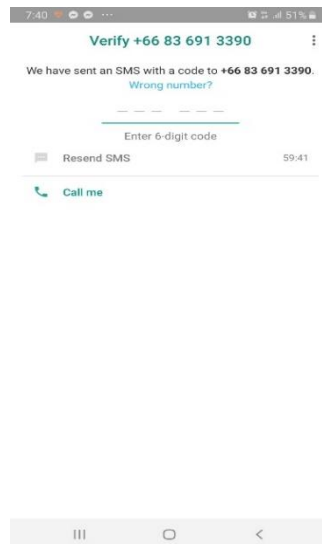
1. First, students must accept WhatsApp's Terms of Service and Privacy Policy.



2. Enter your mobile phone number and click the arrow pointing to the right. Then a confirmation message box will appear:



3. Click "OK" to confirm the phone number. You will receive an SMS message with a code number. Then enter the code from a text box that looks like this:



4. Then click "Done".

For IOS

Step 1 Download and install WhatsApp.

1. Go to App Store and search "WhatsApp". Select WhatsApp Messenger application by WhatsApp Inc.



2. After click "Install", you will see a list of functionalities that WhatsApp must access in order to the app work. Click "Accept".

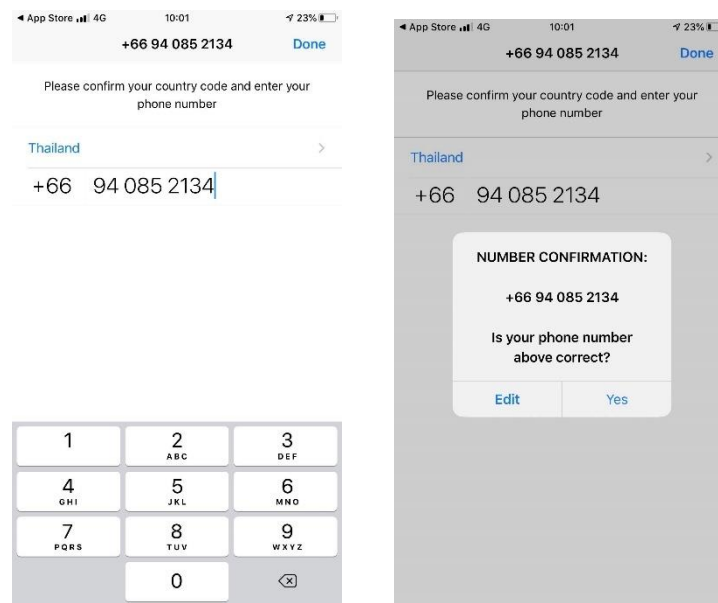
3. WhatsApp is downloaded completely.

Step 2 Register and confirm your phone number

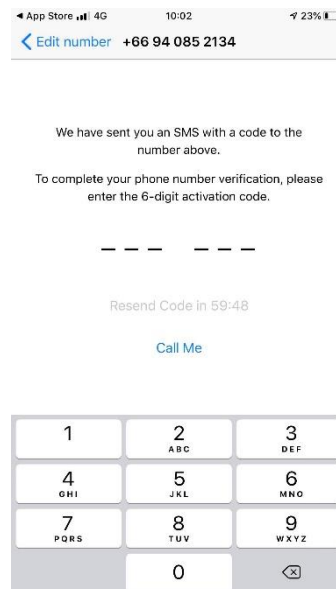
1. First, students must accept WhatsApp's Terms of Service and Privacy Policy.



2. Enter your mobile phone number and click "Done". Then a confirmation message box will appear.



3. Click "OK" to confirm the phone number. You will receive an SMS message with a code number. Then enter the code from a text box that looks like this:



4. Then click "Done".

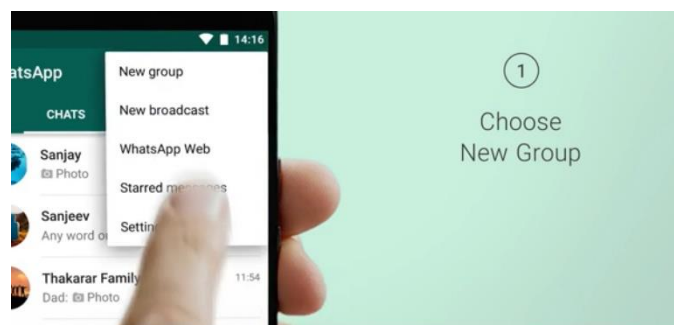
• How to create and invite into a group

Create a group

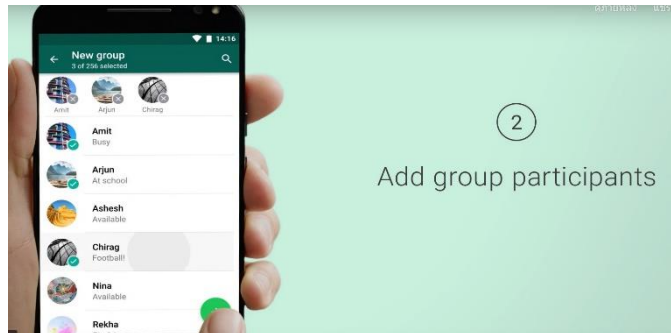
1. Click Menu ( or ) above your chats list in WhatsApp.

Alternatively, click the New chat icon.

2. Click New group.



3. Search for or select contacts to add to the group. Then click the green arrow.



4. Enter a group subject. This will be the name of the group that all participants will see.

Optionally, add a group icon by clicking **ADD GROUP ICON** .

You can choose to Take photo, Upload photo or do a Web Search to add an image. Once set, the icon will appear next to the group in your chats list.

5. Click the green check mark when you're finished.

Invite into groups via links

If you're a group admin, you can invite people to join a group by sharing a link with them. To share a group invite link:

1. Open the WhatsApp group chat, then click the group subject.

Alternatively, click Menu ( or ) in the top corner > Group info.

2. Click Invite to group via link.

3. Choose to Send link via WhatsApp or Copy Link.

- If sending via WhatsApp, search for or select contacts, then click Send.
- The admin can Revoke link at any time to make the previous invite link invalid and create a new link.


Note: Any WhatsApp user you share an invite link with can join the group, so only use this feature with trusted individuals. It's possible for someone to forward the link to other people. If so, those other people can also join the group and the group admin won't be asked to approve those people before they join.



- **How to add and remove group participants**

Add participants

1. Open the WhatsApp group chat, then tap the group subject.

Alternatively, tap and hold the group in the CHATS tab.


Then tap More options  > Group info.

2. Tap Add participants .
3. Search for or select contacts to add to the group.
4. Tap the green check mark  when you're finished.

Remove participants



1. Open the WhatsApp group chat, then tap the group subject.

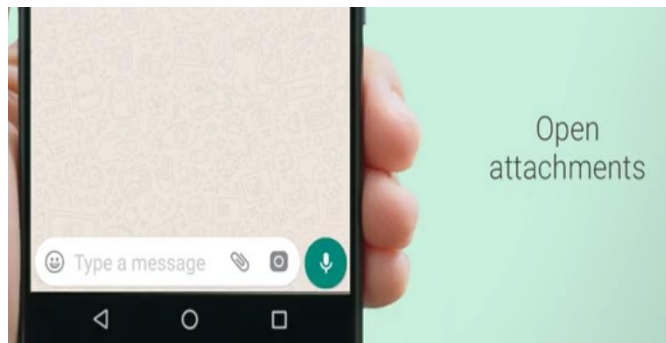
Alternatively, tap and hold the group in the CHATS tab.

Then tap More options  > Group info.

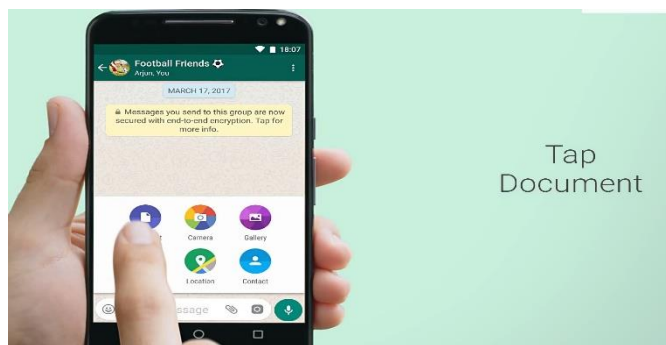
2. Tap the participant you wish to remove.
3. Tap Remove {participant} > OK.







- **Sending media, documents, location and contacts**

1. Open a chat.
2. Tap Attach  or 



3. Choose what you wish to send:



- Choose Document  to select a document from your phone.
- Choose Camera  to take a picture with your camera.
- Choose Gallery  to select an existing photo or video from your phone. You can tap and hold to select multiple images.
- Choose Audio  to send existing audio from your phone.
- Choose Location  to send your location or a nearby place.
- Choose Contact  to send the information of a contact saved in your phone's address book over WhatsApp.

4. You can also add captions to photos and videos. Swipe between photos to add captions to each one.

5. Tap  Send.

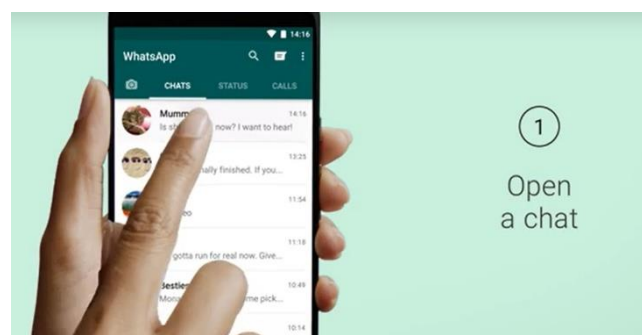
Note: The maximum allowed document size is 100 MB. In order to send a document from within WhatsApp, the document must be saved locally on your phone. Alternatively, WhatsApp will appear as an option in the share menu of apps that handle documents like Dropbox and Google Drive. When you download a document, it will be automatically saved in your WhatsApp Documents folder: WhatsApp/Media/WhatsApp Documents, which can be accessed with a file explorer app.

• Using Voice Messages

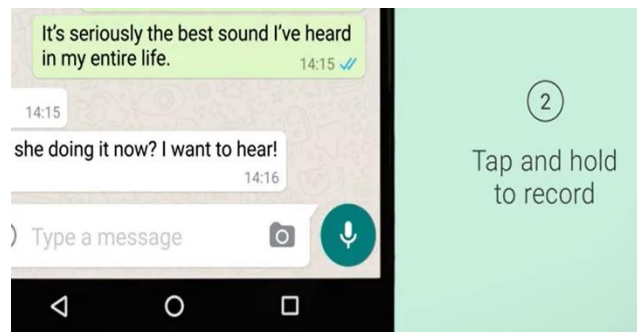
WhatsApp voice messaging allows you to instantly communicate with contacts and groups. It provides an enriching chat experience, and you can use it to deliver important and time-sensitive information. As such, all voice messages are downloaded automatically.


To send a voice message

1. Open a chat.




2. Tap and hold the microphone  and start speaking.



Once finished, remove your finger from the microphone . The voice message will automatically send. While recording a voice message, you can slide left to cancel it.


To play a voice message

1. Tap Play  to listen to voice messages you've sent or received. Hold the phone up to your ear to play the message through your phone's speakers or hold the phone away from your head to listen to the message on speakerphone. When headphones are plugged in, voice messages will always play through your headphones.





On received voice messages you'll see:

A green microphone  on voice messages you haven't played.

A blue microphone  on voice messages you've already played.




On sent voice messages you'll see:

A gray microphone  on voice messages your recipients haven't played.

A blue microphone  on voice messages your recipients played.

• **Checking Read Receipts**

Check marks will appear next to each message you send. Here's what each one indicates:



-  Message successfully sent.
-  Message successfully delivered to the recipient's phone.
-  The recipient has read your message.

In a group chat, the second check mark appears when all participants in the group have received your message. The two blue check marks appear when all participants in the group have read your message.

Message info

For any message that you send, you'll be able to see a Message info screen, displaying the details of when your message was delivered, read or played by the recipient.

To see the Message info screen:

1. Open a chat with a contact or group.
2. Tap and hold your sent message.
3. Tap  . Alternatively, you might have to tap More options 
> Info.

The Message info screen shows:

1. Delivered when your message is delivered to your recipient's phone, but the recipient hasn't yet seen it.
2. Read or Seen when the recipient has read your message or seen your picture, audio file or video. For a voice message, the recipient has seen but hasn't yet played it.
3. Played when the recipient has played your voice message.


Note: When a participant leaves a group, the Message info screen will still show the original information with all participants, including the participant who left the group.

• **Deleting messages**

Deleting messages for everyone allows you to delete specific messages you have sent to either a group or an individual chat. This is particularly useful if you sent a message to the wrong chat or if the message you sent contains a mistake.

Messages you successfully delete for everyone will be replaced with "This message was deleted" in your recipients' chats (*). Similarly, if you see "This message was deleted" in a chat, it means that the sender deleted their message for everyone.

To delete messages for everyone:

1. Open WhatsApp and go to the chat containing the message you wish to delete.
2. Tap and hold the message. Optionally, tap more messages to delete multiple messages at once.
3. Tap Delete  at the top of the screen > Delete for everyone.

- **Problems sending or receiving messages**

The most common reason why you can't send or receive WhatsApp messages is a bad Internet connection. If you're sure your phone is connected to the Internet, there are a few reasons why WhatsApp messages aren't going through:

1. Your phone needs to be restarted or turned off and on.
2. The contact you're messaging has blocked your number. Find out more in this article.
3. You haven't completed the initial verification process.

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Appendix I Guidelines for Student's handbook

คู่มือนักเรียน
สำหรับการทำกิจกรรมพูดโต้ตอบผ่าน
WhatsApp



ส่วนที่ 1 กิจกรรมพูดโต้ตอบผ่าน
WhatsApp
บนโทรศัพท์มือถือ

กิจกรรมพูดโต้ตอบผ่าน WhatsApp บนโทรศัพท์มือถือ

กิจกรรมนี้เป็นส่วนหนึ่งของวิชาภาษาอังกฤษ 10 รหัสวิชา อ32102 ของนักเรียนชั้นมัธยมศึกษาปีที่ 5 โดยมีวัตถุประสงค์เพื่อช่วยนักเรียนพัฒนาทักษะทางการพูดภาษาอังกฤษผ่าน WhatsApp บนโทรศัพท์มือถืออีกทั้งเพื่อช่วยสร้างทัศนคติที่ดีของนักเรียนในการเรียนรู้ภาษาอังกฤษอีกด้วย เพื่อให้บรรลุวัตถุประสงค์ดังกล่าวนักเรียนจะได้รับการฝึกฝนการพูดภาษาอังกฤษผ่าน WhatsApp และได้รับข้อมูล ความรู้ เทคนิคที่ช่วยพัฒนาทักษะการพูดที่ถูกส่งผ่าน WhatsApp บนโทรศัพท์มือถือโดยครูผู้สอน นอกจากนี้ยังมีการทดสอบก่อนและหลังจากการฝึกฝนด้วยกิจกรรมนี้เพื่อพัฒนาการทางการพูดของนักเรียน

รายละเอียดกิจกรรมกิจกรรมพูดโต้ตอบผ่าน WhatsApp บนโทรศัพท์มือถือ

1. ปฐมนิเทศ

นักเรียนจะได้รับการฝึกฝนการใช้ WhatsApp จากครู นอกจากนี้จะมีการแจ้งเกณฑ์เพื่อประเมินการพูดของนักเรียนซึ่งมาจากการทดสอบก่อนและหลังทำกิจกรรม ในส่วนของการปฐมนิเทศนี้จะช่วยสร้างความเข้าใจของนักเรียนก่อนที่จะทำกิจกรรม พูดโต้ตอบผ่าน WhatsApp หลังจากการปฐมนิเทศนักเรียนจะได้รับงานหนึ่งอย่างจากครูเพื่อตรวจสอบความเข้าใจต่อการใช้งาน WhatsApp

2. กิจกรรมฝึกฝนการพูด

เป็นกิจกรรมที่ฝึกฝนการพูดของนักเรียนผ่าน WhatsApp บนโทรศัพท์มือถือ หลังจากที่ได้เรียนเนื้อหาต่าง ๆ ในห้องเรียน เป็นเวลา 5 สัปดาห์ สัปดาห์ละ 1 ครั้งเพื่อประเมินสิ่งที่นักเรียนได้เรียนรู้ไป โดยจะดำเนินการในทุก ๆ วันพฤหัสบดี ตั้งแต่เวลา 14.30 น. เป็นต้นไป

3. กิจกรรมเรียนรู้จากข้อมูลที่ถูกส่งผ่าน WhatsApp

นอกจากนักเรียนจะทำกิจกรรมเพื่อฝึกทักษะการพูดแล้ว นักเรียนยังสามารถศึกษาความรู้หรือเทคนิคที่ช่วยนักเรียนพัฒนานอกเหนือจากที่เรียนในห้องเรียนที่ถูกส่งผ่าน WhatsApp ในทุก ๆ วันจากครูผู้สอน

4. การทดสอบก่อนและหลังทำกิจกรรม

การทดสอบก่อนและหลังทำกิจกรรมนั้นถูกออกแบบมาเพื่อให้สอดคล้องกับสิ่งที่นักเรียนเรียนในชั้นเรียน ซึ่งนักเรียนจะต้องทำแบบทดสอบทั้งสิ้น 2 ครั้ง คือในอาทิตย์แรกและอาทิตย์สุดท้ายของการทำกิจกรรมทั้งหมดเพื่อ
ดูถึงพัฒนาการทางด้านการพูดของนักเรียน

ตารางที่ 1 : กิจกรรมที่นักเรียนจะได้ทำในแต่ละสัปดาห์

สัปดาห์	กิจกรรม	เนื้อหา
1	ปฐมนิเทศ	- วิธีใช้ WhatsApp - เกณฑ์ในการวัดทักษะการพูด - ภาระงาน: สร้างบัญชี WhatsApp และ ส่งข้อความเสียงแนะนำตัวเอง
2	ทดสอบก่อนการทำกิจกรรม	Unit 1,2,3
3	การฝึกฝนการพูดครั้งที่ 1	Unit 1 : Let's talk - Communication verb - Social network - will, might/may + adverb of possibility - First Conditional
4	การฝึกฝนการพูดครั้งที่ 2	Unit 2 : Fears
5	การฝึกฝนการพูดครั้งที่ 3	- Fears - Be going to/will - -ed and -ing adjective - Expressing surprise
6	การฝึกฝนการพูดครั้งที่ 4	Unit 3 : school life
7	การฝึกฝนการพูดครั้งที่ 5	- Life at school - Second conditional - Using make and do - Asking for and giving advice
8	ทดสอบหลังทำกิจกรรม	Unit 1,2,3

ขั้นตอนการทำกิจกรรมพูดโต้ตอบผ่าน WhatsApp บนโทรศัพท์มือถือ

ก่อนที่นักเรียนจะได้ทำกิจกรรม นักเรียนจะถูกเชิญเข้ากลุ่ม “Learning English M.5” บน WhatsApp ซึ่งสมาชิกในกลุ่มได้แก่ ครูจำนวน 2 คนและนักเรียนจำนวน 30 คน ช่องทางการทำกิจกรรมจะดำเนินการผ่าน WhatsApp บนโทรศัพท์มือถือทุกขั้นตอน โดยจะแบ่งช่องทาง WhatsApp ออกเป็น 2 ส่วนดังนี้

1. ช่องทางคุยแบบกลุ่ม (ระหว่างนักเรียนทั้งห้องและครู)
2. ช่องทางคุยส่วนตัว (ระหว่างครูและนักเรียน)

โดยทั้งสองช่องทางจะมีบทบาทต่อการทำกิจกรรมของนักเรียนดังนี้

แบบกลุ่ม	แบบส่วนตัว
1. รับคำสั่งเพื่อทำแบบทดสอบก่อนเรียนและหลังเรียน	1. ส่งคำตอบของแบบทดสอบก่อนเรียนและหลังเรียน
2. รับคำสั่งเพื่อทำกิจกรรมฝึกฝนการพูดครั้งที่ 1-5	2. ส่งคำตอบของกิจกรรมฝึกฝนการพูดครั้งที่ 1-5, รับผิดชอบก่อนกลับจากครู และ แก้ไขคำตอบให้ถูกต้อง
3. ศึกษาความรู้ คำแนะนำ เทคนิคเพื่อพัฒนาทักษะการพูดจากที่ครูส่งมาในทุก ๆ วัน	3. นักเรียนส่งข้อความเสียงแนะนำตัวเองให้กับครู จากกิจกรรมที่ครูมอบหมายคาบปฐมนิเทศ
4. ถามคำถามที่สงสัยหรือต้องการคำแนะนำ	-

ขั้นตอนการทำภาระงานหลังการปฐมนิเทศ

1. หลังจากนักเรียนได้รับการฝึกฝนให้ใช้ WhatsApp ครูจะมอบหมายให้นักเรียนสร้างบัญชี WhatsApp ของตนเอง และให้แนะนำตัวโดยส่งเป็นข้อความเสียงผ่าน WhatsApp
2. นักเรียนสร้างบัญชี WhatsApp ของตนเองโดยตั้งชื่อบัญชีเป็นรหัสประจำตัวของนักเรียน
3. นักเรียนบันทึกข้อความเสียงแนะนำตัวเองและส่งไปช่องทางการพูดคุยส่วนตัวของครูซึ่งมีชื่อว่า “Teacher 1”
4. นักเรียนรอการยืนยันจากครูว่าคลิปเสียงได้ทำการถูกส่งมายังครูแล้วและสามารถเปิดฟังได้โดยไม่มีปัญหา ครูจะตอบข้อความเสียงกลับมาเพื่อยืนยันเช่น “ สวัสดี” หรือ “ยินดีที่ได้รู้จัก” เป็นต้น ซึ่งถือเป็นการสิ้นสุดการฝึกฝนการใช้ WhatsApp

ขั้นตอนการทำแบบทดสอบก่อนและหลังทำกิจกรรม

1. นักเรียนอ่านคำสั่งและรายละเอียดการทำแบบทดสอบจากช่องทางการพูดคุยแบบกลุ่มบน WhatsApp อย่างละเอียด

2. นักเรียนทำแบบทดสอบโดยกดบันทึกเสียงของตนเองผ่าน WhatsApp โดยใช้เวลารวมไม่เกินสามนาที
3. นักเรียนกดส่งไฟล์เสียงของตนเองที่บันทึกไว้มายังช่องทางการพูดคุยส่วนตัวของครูซึ่งมีชื่อว่า “Teacher 1” โดยนักเรียนต้องส่งข้อความเสียงกลับมาภายในเวลา 1 ชั่วโมงหลังจากได้รับแบบทดสอบ
4. นักเรียนรอการยืนยันจากครูว่าคลิปเสียงได้ทำการถูกส่งมายังครูแล้วและสามารถเปิดฟังได้โดยไม่มีปัญหา ถือเป็น การสิ้นสุดการทดสอบ

ขั้นตอนการฝึกฝนการพูดครั้งที่ 1-5

1. นักเรียนอ่านคำสั่งและรายละเอียดการทำแบบทดสอบจากช่องทางการพูดคุยแบบกลุ่มบน WhatsApp อย่างละเอียด
2. นักเรียนทำกิจกรรมฝึกฝนการพูดโดยกดบันทึกเสียงของตนเองผ่าน WhatsApp โดยใช้เวลารวมไม่เกินสามนาที
3. นักเรียนกดส่งไฟล์เสียงของตนเองที่บันทึกไว้มายังช่องทางการพูดคุยส่วนตัวของครู ในชื่อ “Teacher 1” โดยนักเรียนต้องส่งข้อความเสียงกลับมาภายในเวลา 1 ชั่วโมงหลังได้รับคำสั่งให้ทำกิจกรรม
4. หลังจากนักเรียนส่งข้อความเสียงไปหาครูแล้ว นักเรียนจะเริ่มทยอยได้รับผลสะท้อนกลับจากครูผ่าน WhatsApp จนกระทั่งถึงวันศุกร์ถือเป็น การสิ้นสุดการฝึกในแต่ละสัปดาห์ โดยนักเรียนจะได้รับผลสะท้อนกลับจากครูซึ่งแบ่งออกเป็น 2 กรณี

กรณีที่ 1 คำตอบนั้นถูกต้อง ไม่มีจุดผิดพลาดในประโยคเลย นักเรียนจะได้รับคำชมเชยจากครู

กรณีที่ 2 คำตอบของนักเรียนมีจุดผิดพลาด ครูจะให้ผลสะท้อนกลับมา เพื่อให้ นักเรียนแก้ไขให้ถูกต้อง โดยแบ่งออกเป็น 8 ขั้นโดยจะเรียงลำดับจากการพูดเป็นนัยไปจนถึงการอธิบายอย่างละเอียด ซึ่งจะไปตามลำดับที่ละขั้น จนกว่านักเรียนจะสามารถแก้ไขคำตอบให้ถูกต้องได้ ดังนี้

ขั้นที่ 1	ให้นักเรียนพูดซ้ำ
ขั้นที่ 2	ครูอ่านวลีทั้งหมดด้วยน้ำเสียงที่เป็นประโยคคำถาม
ขั้นที่ 3	ครูอ่านแค่ส่วนหนึ่งของประโยคที่มีจุดที่ผิด
ขั้นที่ 4	ครูชี้ว่ามีจุดที่ผิดในประโยคนี้
ขั้นที่ 5	ครูชี้คำที่ผิด
ขั้นที่ 6	ครูถามตั้งคำถามหรือให้เลือกตอบ เช่น ให้เลือกคำที่ผิด หรือ ถูก

ชั้นที่ 7 ครูบอกคำตอบที่ถูกต้อง เมื่อครูบอกนักเรียนแล้วถ้านักเรียนไม่เข้าใจว่าทำไมสามารถขอคำแนะนำจากครูในชั้นต่อไปได้

ชั้นที่ 8 ครูอธิบายเหตุผลว่าทำไม

ตัวอย่างทำกิจกรรมกิจกรรมพูดโต้ตอบผ่าน WhatsApp บนโทรศัพท์มือถือ

ตัวอย่างที่ 1 : Share what you did last night

คำตอบของนักเรียนคนที่ 1 :

“I went to the market because my mother ask me to buy some apples. She wanted me to eat them because it is good for my health.”

ระดับชั้น	บทสนทนาระหว่างครูและนักเรียนผ่าน WhatsApp
ชั้นที่ 1 ครูให้นักเรียนพูดซ้ำ	T: Say again, please. S: (Say again)
ชั้นที่ 2 ครูอ่านวลีทั้งหมดด้วยน้ำเสียงที่เป็นประโยคคำถาม	T: You went to the market and your mother ask you to buy? S: Yes. My mother ask me to buy some apples.
ชั้นที่ 3 ครูอ่านแค่ส่วนหนึ่งของประโยคที่มีจุดที่ผิด	T: Your mother ask you to buy some apples? S: My mother asking me to buy some apples.
ชั้นที่ 4 ครูชี้ว่ามีจุดที่ผิดในประโยคนี้	T: What is wrong with that sentence? S: “asking” is wrong.
ชั้นที่ 5 ครูชี้คำที่ผิด	T: Yes, “asking” is wrong. How can you fix it? S: asks
ชั้นที่ 6 ครูถามตั้งคำถามหรือให้เลือกตอบ	T: asks or asked? S: asked. I went to the market because my mother asked me to buy some apples.
ชั้นที่ 7 ครูบอกคำตอบที่ถูกต้อง	T: Yes, “asked” is a correct answer. S: I don’t know why.
ชั้นที่ 8 ครูอธิบายเหตุผลว่าทำไม	T: When you are talking about something that has already happened, “verb” must be in past form.

กรณีนี้นักเรียนสามารถแก้ไขจุดผิดพลาดได้ถูกต้องแล้วตั้งแต่ขั้นแรก ๆ คำใบ้หรือคำอธิบายในขั้นหลังจากนั้นจึงไม่จำเป็นอีกต่อไป ดังเช่นตัวอย่างต่อไปนี้

ตัวอย่างที่ 2 : Share your experience in your school

คำตอบของนักเรียนคนที่ 2 :

“I am a bookworm so I always am in the library when I have free time. I also like to share learning tips with my friends.”

ระดับชั้น	บทสนทนาระหว่างครูและนักเรียนผ่าน WhatsApp
ชั้นที่ 1 ครูให้นักเรียนพูดซ้ำ	T: Again, please. S: (Say again)
ชั้นที่ 2 ครูอ่านวลีทั้งหมดด้วยน้ำเสียงที่เป็นประโยคคำถาม	T: You always are in the library when you have free time? S: Sorry. I am always in the library when I have free time.

จากตัวอย่างที่ 2 จะเห็นได้ว่านักเรียนคนที่ 2 สามารถแก้ไขจุดที่ผิดพลาดได้ถูกต้อง จากการให้คำใบ้ในชั้นที่ 2 ดังนั้นคำใบ้ในขั้นต่อไปจึงไม่ได้ถูกนำมาใช้สำหรับกรณีนี้

เกณฑ์การให้คะแนนจากการสอบก่อนและหลังทำกิจกรรม

คำนวณจาก การนับจำนวนอนุประโยค (Clause) ที่ไม่มีความผิดพลาดทางไวยากรณ์หารด้วยจำนวนอนุประโยคที่พูดออกมาทั้งหมด

เช่น My favorite **is** TV is SAP SAP because it is interesting. It is a very popular **TV**. Maybe most

1

2

3

4

of people in my school **look** it.





จากตัวอย่างนักเรียนสามารถสร้างอนุประโยคได้ทั้งสิ้น 4 อนุประโยค และจาก 4 อนุประโยคนั้น มีเพียงอนุประโยคเดียวที่ไม่มีความผิดพลาดทางไวยากรณ์เลยคือ อนุประโยคที่ 2 ดังนั้นคะแนนจะคิดได้ดังนี้

$1 / 4 = 0.25$ คะแนน

ส่วนที่ 2 WhatsApp และการใช้งานเพื่อ
การทำกิจกรรมพูดโต้ตอบผ่าน
WhatsApp

WhatsApp และการใช้งานเพื่อการทำกิจกรรมพูดโต้ตอบผ่าน WhatsApp

- รหัสคิวอาร์แสดงวิดีโอคลิปเกี่ยวกับการใช้งาน WhatsApp เบื้องต้น

หัวข้อ	รหัสคิวอาร์	
1. การติดตั้ง WhatsApp บนโทรศัพท์มือถือ (อ่านเพิ่มเติมหน้า 12)	 ระบบ Android	 ระบบ iOS
2. การใช้ข้อความเสียง (อ่านเพิ่มเติมหน้า 16)		
3. การลบข้อความ (อ่านเพิ่มเติมหน้า 18)		

• การติดตั้ง WhatsApp บนโทรศัพท์มือถือ

ขั้นตอนการติดตั้ง WhatsApp บนโทรศัพท์มือถือ

ระบบปฏิบัติการ Android

ขั้นที่ 1 ดาวน์โหลดและติดตั้ง WhatsApp

1. เข้าไปที่ร้านค้า Google Play และค้นหาโดยใช้คำว่า "WhatsApp" เลือกแอปพลิเคชัน WhatsApp Messenger โดย WhatsApp Inc



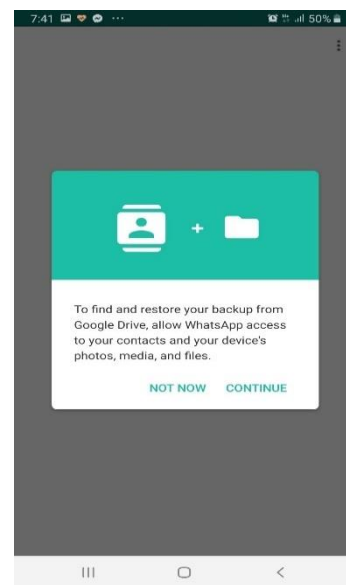
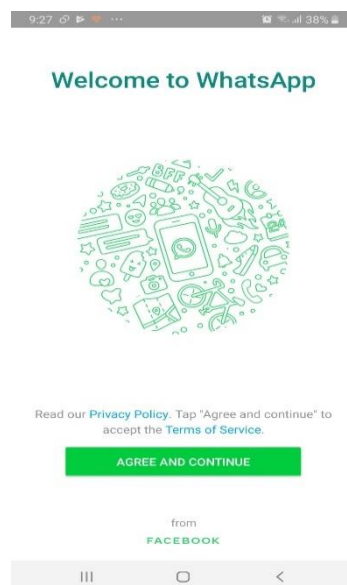
2. หลังคลิก "Install" ["ติดตั้ง"] นักเรียนจะเห็นรายการฟังก์ชันการทำงานที่ WhatsApp จะต้องเข้าถึงเพื่อให้

แอปพลิเคชันใช้งานได้ ให้คลิก "Accept" ["ยอมรับ"]

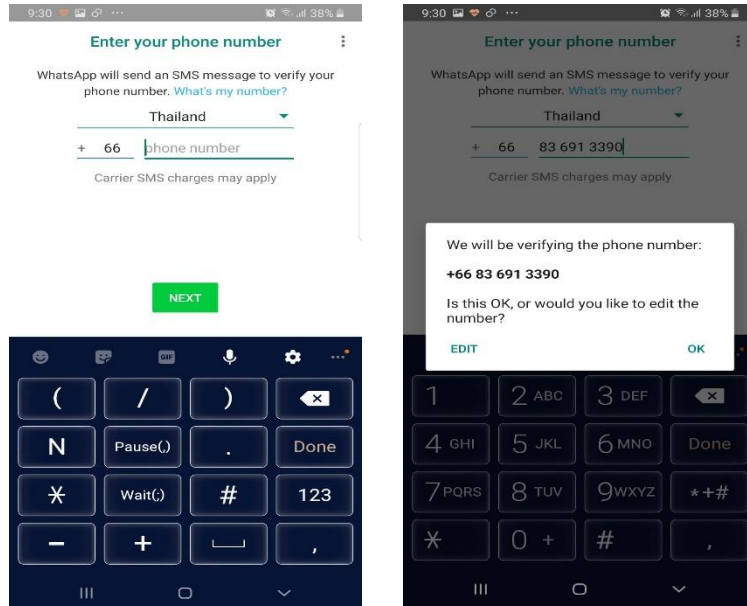
3. หลังดาวน์โหลด WhatsApp เสร็จแล้ว ให้คลิก "Open" ["เปิด"] เพื่อเปิดใช้แอปพลิเคชัน

ขั้นที่ 2 ลงทะเบียนและยืนยันหมายเลขโทรศัพท์ของนักเรียน

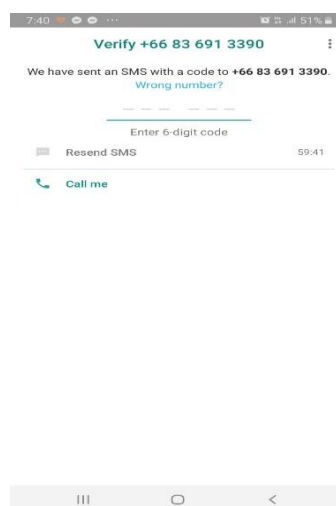
1. ลำดับแรกนักเรียนต้องยอมรับข้อกำหนดการบริการและนโยบายความเป็นส่วนตัวเป็นส่วนของตัวเองของ WhatsApp ก่อน



2. ให้กรอกหมายเลขโทรศัพท์มือถือและคลิกที่ "Next" ["ถัดไป"] จากนั้นจะมีกล่องข้อความยืนยันปรากฏขึ้น:



3. ให้คลิก "OK" ["ตกลง"] ในการยืนยันหมายเลขโทรศัพท์ นักเรียนจะได้รับข้อความ SMS ที่มีหมายเลขหกหลัก เมื่อถึงจุดนี้จะมีข้อความที่ระบุว่า WhatsApp กำลังขออนุญาตเข้าถึงข้อความ SMS ของนักเรียน หากคลิก "Allow" ["อนุญาต"] WhatsApp จะทราบได้โดยอัตโนมัติเมื่อนักเรียนได้รับรหัสและจะดำเนินการขั้นตอนการลงทะเบียนให้นักเรียน หากคลิก "Deny" ["ไม่อนุญาต"] นักเรียนจะต้องตรวจสอบแอปพลิเคชันสำหรับรับส่ง SMS ด้วยตัวเองเพื่อรับข้อมูลรหัสและป้อนรหัสดังกล่าวลงในกล่องข้อความซึ่งมีลักษณะคล้ายแบบนี้:



4. จากนั้นคลิก "Done" ["เสร็จสิ้น"]

การติดตั้ง WhatsApp บนโทรศัพท์ระบบปฏิบัติการ iOS

ขั้นที่ 1 ดาวน์โหลดและติดตั้ง WhatsApp

1. เข้าไปที่ App store และค้นหาโดยใช้คำว่า "WhatsApp" เลือกแอปพลิเคชัน WhatsApp Messenger โดย WhatsApp Inc



2. หลังกด "ติดตั้ง" นักเรียนจะเห็นรายการฟังก์ชันการทำงานที่ WhatsApp จะต้องเข้าถึงเพื่อให้แอปพลิเคชันใช้งานได้ ให้คลิก "Accept" ["ยอมรับ"]

3. หลังดาวน์โหลด WhatsApp เสร็จแล้ว ให้คลิก "Open" ["เปิด"] เพื่อเปิดใช้แอปพลิเคชัน

1. ลำดับแรกนักเรียนต้องยอมรับข้อกำหนดการบริการและนโยบายความเป็นส่วนตัวเป็นส่วนตัวของ WhatsApp ก่อนคลิก "Agree & Continue" ["ยอมรับและดำเนินการต่อ"]

App Store 4G 10:01 23%



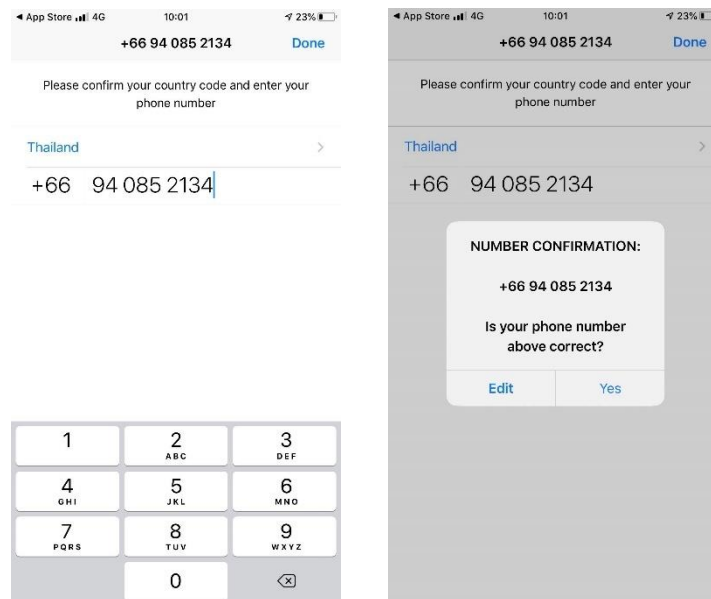
Welcome to WhatsApp

Read our [Privacy Policy](#). Tap "Agree & Continue" to accept the [Terms of Service](#).

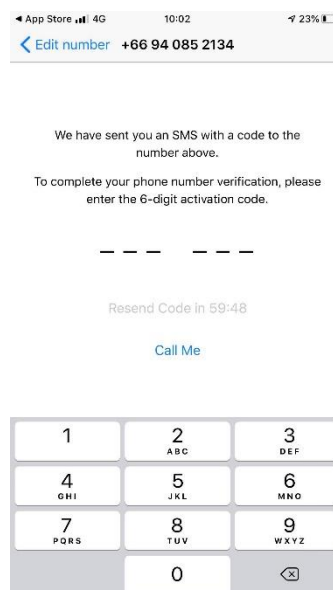
[Agree & Continue](#)

from
FACEBOOK

2. ให้กรอกหมายเลขโทรศัพท์มือถือและคลิกที่ 'Done' จากนั้นจะมีกล่องข้อความยืนยันปรากฏขึ้น:



3. ให้คลิก "OK" ["ตกลง"] ในการยืนยันหมายเลขโทรศัพท์ นักเรียนจะได้รับข้อความ SMS ที่มีหมายเลขหลัก เมื่อถึงจุดนี้จะมีข้อความที่ระบุว่า WhatsApp กำลังขออนุญาตเข้าถึงข้อความ SMS ของนักเรียน หากคลิก "Allow" ["อนุญาต"] WhatsApp จะทราบได้โดยอัตโนมัติเมื่อนักเรียนได้รับรหัสและจะดำเนินการขั้นตอนการลงทะเบียนให้นักเรียน หากคลิก "Deny" ["ไม่อนุญาต"] นักเรียนจะต้องตรวจสอบแอปพลิเคชันสำหรับรับส่ง SMS ด้วยตัวเองเพื่อรับข้อมูลรหัสและป้อนรหัสดังกล่าวลงในกล่องข้อความซึ่งมีลักษณะคล้ายแบบนี้:



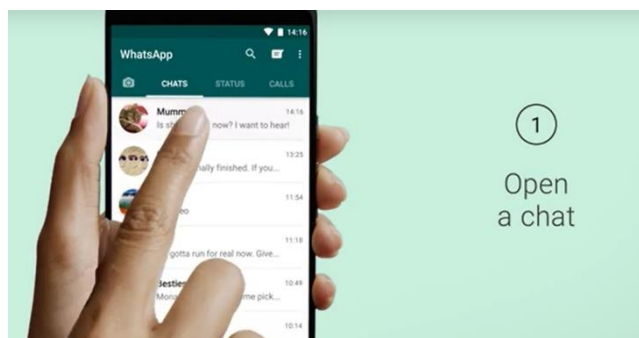
4. จากนั้นคลิก "Done" ["เสร็จสิ้น"]

การใช้ข้อความเสียง

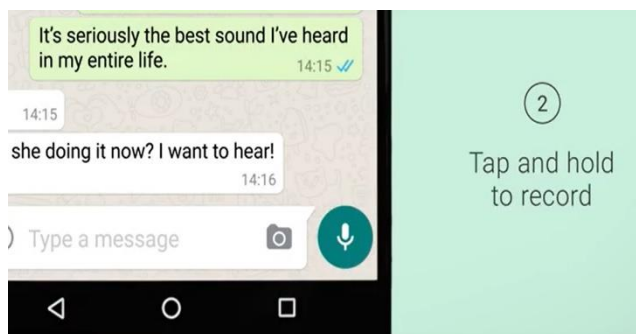
การรับส่งข้อความเสียง WhatsApp ช่วยให้นักเรียนสามารถสื่อสารกับผู้ติดต่อหรือกลุ่มได้ทันที ซึ่งจะให้ประสบการณ์แชทที่สมบูรณ์ รวมทั้งสามารถส่งข้อมูลที่สำคัญและมีเวลาเป็นปัจจัยสำคัญได้ ทุกข้อความเสียงจะดาวน์โหลดโดยอัตโนมัติ

วิธีส่งข้อความเสียง

1. เปิดแชท



2. แตะไมโครโฟน ค้างไว้และเริ่มพูด




3. เมื่อเสร็จแล้ว ให้นำนิ้วมือออกจากไมโครโฟน ข้อความเสียงจะส่งโดยอัตโนมัติ

ขณะที่บันทึกข้อความเสียง นักเรียนสามารถเลื่อนไปด้านซ้ายเพื่อยกเลิกได้

หมายเหตุ: สำหรับมือถือบางรุ่น อาจต้องรอหนึ่งวินาทีก่อนที่จะพูดหากพบว่าตอนต้นของข้อความยังไม่ได้
รับการบันทึก


วิธีเล่นข้อความเสียง

1. **แตะเล่น**  เพื่อฟังข้อความเสียงที่ส่งหรือได้รับ ถือโทรศัพท์มือถือของนักเรียนเพื่อเล่นข้อความผ่านลำโพง โทรศัพท์หรือถือโทรศัพท์ห่างจากศีรษะเพื่อฟังข้อความในลำโพง เมื่อเสียบหูฟังอยู่ ข้อความเสียงจะเล่นผ่านหูฟังของนักเรียนทุกครั้ง





สำหรับข้อความเสียงที่ได้รับ นักเรียนจะเห็น:

ไมโครโฟนสีเขียว  สำหรับข้อความเสียงที่นักเรียนยังไม่ได้เล่น

ไมโครโฟนสีฟ้า  สำหรับข้อความเสียงที่นักเรียนเล่นแล้ว




สำหรับข้อความเสียงที่ได้ส่ง นักเรียนจะเห็น:

ไมโครโฟนสีเทา  สำหรับข้อความเสียงที่ผู้รับยังไม่ได้เล่น

ไมโครโฟนสีฟ้า  สำหรับข้อความเสียงที่ผู้รับเล่นแล้ว

การตรวจสอบใบตอบรับการเปิดอ่าน

เครื่องหมายถูกจะปรากฏข้างๆ แต่ละข้อความที่ นักเรียนส่ง เครื่องหมายถูกแต่ละแบบจะมีความหมายดังต่อไปนี้


-  ส่งข้อความสำเร็จ
-  ส่งข้อความไปยังโทรศัพท์ของผู้รับสำเร็จ
-  ผู้รับอ่านข้อความของนักเรียนแล้ว

ในแชทกลุ่ม เครื่องหมายถูกที่สองจะปรากฏเมื่อสมาชิกทุกคนในกลุ่มได้รับข้อความของนักเรียนแล้ว เครื่องหมายถูก

สีฟ้าสองอันจะปรากฏเมื่อสมาชิกทุกคนในกลุ่มได้อ่านข้อความของ นักเรียนแล้ว

สำหรับข้อความใด ๆ ที่ นักเรียนส่ง นักเรียนจะสามารถดูหน้าจอลงข้อมูลข้อความ ซึ่งแสดงรายละเอียดเกี่ยวกับเวลาที่ส่งข้อความ เวลาที่ผู้รับอ่านหรือเปิดเล่นข้อความ

วิธีดูหน้าจอลงข้อมูลข้อความ

- เปิดแชทกับผู้ติดต่อหรือกลุ่ม
- แตะข้อความที่ นักเรียนส่งค้างไว้
- แตะ ⓘ หรือ นักเรียนอาจต้องแตะตัวเลือกเพิ่มเติม  > ข้อมูล

หน้าจอลงข้อมูลข้อความจะแสดงดังนี้

- ส่งแล้วเมื่อส่งข้อความถึงโทรศัพท์ของผู้รับแล้ว แต่ผู้รับยังไม่เห็นข้อความนั้น
- อ่านแล้วหรือเห็นแล้วเมื่อผู้รับอ่านข้อความหรือเห็นรูปภาพ ไฟล์เสียง หรือวิดีโอของคุณแล้ว สำหรับข้อความเสียง ผู้รับเห็นแล้วแต่ยังไม่ได้เปิดเล่น
- เล่นแล้วเมื่อผู้รับได้เปิดเล่นข้อความเสียงของ นักเรียนแล้ว


การลบข้อความ

การลบข้อความสำหรับทุกคนช่วยให้นักเรียนลบข้อความใดข้อความหนึ่งที่นักเรียนส่งไปยังแชทกลุ่มหรือแชทของแต่ละบุคคลได้ การดำเนินการนี้จะมีประโยชน์อย่างยิ่งหากนักเรียนส่งข้อความแชทผิดหรือหากข้อความที่นักเรียนส่งมีข้อผิดพลาด

ข้อความที่นักเรียนลบสำเร็จสำหรับทุกคนที่จะถูกแทนที่ด้วย “ข้อความนี้ถูกลบแล้ว” ในแชทของผู้รับ (*) ในทำนองเดียวกัน ถ้านักเรียนเห็น “ข้อความนี้ถูกลบแล้ว” ในแชท จะหมายความว่าผู้ส่งได้ลบข้อความของตนสำหรับทุกคน

วิธีลบข้อความสำหรับทุกคน:

1. เปิด WhatsApp และไปที่แชทที่มีข้อความที่นักเรียนต้องการลบ
2. แตะข้อความค้างไว้ หรือแตะข้อความอื่นเพื่อลบหลายๆ ข้อความในครั้งเดียว

3. แตะลบ  ที่ด้านบนของหน้าจอ > ลบสำหรับทุกคน

ปัญหาในการรับส่งข้อความ

สาเหตุโดยส่วนใหญ่ที่นักเรียนไม่สามารถรับส่งข้อความจาก WhatsApp ได้ก็คือการเชื่อมต่ออินเทอร์เน็ตที่ไม่ดี หากนักเรียนแน่ใจว่าโทรศัพท์เชื่อมต่ออินเทอร์เน็ตแล้ว มีไม่กี่สาเหตุที่ทำให้ไม่ถึงรับส่งข้อความจาก WhatsApp ไม่ได้ นี้คือวิธีแก้ไขปัญหาเบื้องต้น:

1. จะต้องรีสตาร์ทโทรศัพท์ หรือปิดแล้วเปิดโทรศัพท์อีกครั้ง
2. ผู้ติดต่อที่นักเรียนส่งข้อความบล็อกหมายเลขของนักเรียน ต้องแจ้งผู้ติดต่อโดยตรง
3. นักเรียนยังดำเนินขั้นตอนการยืนยันเริ่มต้นไม่สำเร็จ
4. มีการบันทึกหมายเลขของผู้ติดต่อที่นักเรียนพยายามส่งข้อความถึงบน WhatsApp ไว้อย่างไม่ถูกต้อง

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Retrieved from

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PAPER 1

FULL PROCEEDING



Using WhatsApp to Enhance Speaking Skills for Thai EFL Learners: How and Why?

Piyaporn Phetsut¹

Zainee Waemusa²

Abstract

Researchers have investigated how young learners and their language learning were influenced by the existing mobile devices since this entails some understanding of their language learning with mobile devices embedded in their social life. Yet an instructional intervention for Mobile Assisted Language Learning (MALL) in Thai EFL contexts needs to be further explored for enhancing learners' speaking skills. As part of a larger quasi-experimental research project, this paper aims to present a designed instructional intervention utilizing WhatsApp to boost English speaking skills and to present preliminary qualitative findings on student perceptions. A MALL-designed intervention by using WhatsApp is presented to promote English speaking skills through eight scaffolding steps, moving from implicit to explicit steps. Then, some preliminary qualitative findings are presented to understand Thai young learners' perceptions in relation to the above intervention. Discussion is provided to shed light on the interplay between a teacher and learners shaped by mobile technologies in English language education as well as some opportunities and challenges of a MALL-designed intervention with WhatsApp in pedagogical practices.

Keywords: EFL, intervention, Mobile Assisted Language Learning (MALL), speaking skills, WhatsApp,

Introduction

Aligned with the Framework for 21st Century Learning (Battele for Kids, 2019), it is suggested that language learners in the 21st century should be empowered to communicate with others across the world in real time and use language and cultural knowledge to link to people. It is claimed that the use of mobile technology can facilitate

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learners' 21st century learning skills (Howlett & Zainee, 2019). Mobile devices, with their affordances, can support unconfident learners to personalize their own learning and can access information anytime and anywhere (Kukulka-Hulme, 2018).

Mobile Assisted Language Learning (MALL) is a pedagogical approach to enhancing language learning and teaching through mobile devices (Chinnery, 2006). Previous studies reported positive effects of MALL on developing speaking skills (Juniardi et al., 2020; Moayeri & Khodareza, 2020; Wu & Miller, 2020), claiming that MALL-designed activities can support teaching and learning English speaking skills and promote learners' motivation in EFL contexts.

Although many studies revealed the positive effects of MALL on EFL learners' speaking skills (Alkhudair, 2020; Chang & Lan, 2021; Indrastana & Rinda, 2021), studying a MALL-based intervention to promote accuracy of English-speaking skills is still limited in Thai EFL contexts. To fill this gap, this paper as part of a larger project aims to present and discuss a MALL-based intervention by explaining key scaffolding processes using WhatsApp to enhance EFL learners' speaking skills and present preliminary findings on student perceptions.

MALL and Its Values in EFL contexts

MALL is an approach to using smartphones and other mobile technologies in language learning (Chinnery, 2006). Teachers in EFL (English as a foreign language) contexts are recommended to develop and enhance their speaking teaching practices through mobile devices (Sun et al., 2017). However, in real practice, they still face pedagogical challenges, for example class sizes (Watanapokakul, 2016), limited instructional designs, and technological support (Oeamoum & Sriwichai, 2020), and a lack of native English speakers (Noom-Ura, 2013).

Literature indicated the values of MALL in EFL contexts. With appropriate applications of MALL, learners can access information and social networks immediately, providing flexible time and place in learning, have continuity of learning between different settings, support individual demands, un-complicate sharing, and provide an opportunity to practice English language skills at their own pace (Kukulka-Hulme, 2018). The MALL-based pedagogical application can improve EFL learners' listening skills (Salih, 2019), and oral fluency (Sun et al., 2017) as well as supporting collaborative learning between teachers and learners (Kukulka-Hulme & Shield, 2008, as cited in Godwin-Jones, 2011).

Language educators have embraced mobile devices for educational purposes and many applications on mobile phones can enhance learners' language skills (Godwin-Jones,



2011). One of the mobile applications is WhatsApp. It is an instant messaging platform on a mobile phone and users can interact with others (WhatsApp LLC, 2021), providing effective learning environments for education processes as a supportive technology (Cetinkaya, 2017). This application can provide learners with timely functions, allowing for speaking practice and private feedback from teachers (Amelia, 2019).

Many studies showed positive effects of using WhatsApp on English learning skills (Akkara et al., 2020). With limited exposure of language for EFL learners in their learning contexts, the MALL application can extricate the limitation of the number of native speakers in their areas including increased awareness, motivation and interaction (Ataifar et al., 2020; Fasa & Purnawarman, 2020; Indrastana & Rinda, 2021). Therefore, it is worth taking advantages of WhatsApp for language teaching and learning to enhance speaking skills of EFL learners.

Dynamic Assessment and MALL

Dynamic assessment (DA), based on Vygotsky's Socio-Cultural Theory, is an evaluation approach in which assessment and instruction are integrated in order to develop learners' performance and provides proficient instructions (Lidz & Peña, 1996). DA focuses on what people can do with collaboration, instead of what people can do individually (Poehner, 2007). With the provided support and encouragement to a learner as scaffolding processes, a More Knowledgeable Other (MKO) assists the learner in performing a task before the learner is able to complete it liberally. Scaffolding processes can take several forms, for example, providing feedback for achieving the task, asking questions to get learners' understanding (Gallimore & Tharp, 1990) including the use of technology to support scaffolding (Sharma & Hannafin, 2007).

With the timely functions of mobile devices and WhatsApp, researchers applied MALL with dynamic assessment as scaffolding processes to help EFL learners' speaking skills (Tarighat & Khodabakhsh, 2016), with the designed processes adapted from Lantolf and Poehner (2011). Following Vygotsky's Zone of Proximal Development, Lantolf and Poehner explored dynamic assessment as scaffolding processes to promote learners' language development. In their study, they demonstrated interactions between a Spanish teacher as a foreign language and students by applying DA in a classroom in order to provide opportunities for learners' language development. With the teacher's knowledge of the instructional context in this research project and the scaffolding framework from the study of Lantolf and Poehner (2011), an inventory of teacher prompts consisting of eight hints which assists learners to develop language were adapted and applied in this study.



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However, the use of WhatsApp in scaffolding oral accuracy of Thai EFL learners is limited and an understanding of how to scaffold EFL learners with timely feedback to enhance oral accuracy with this application is undisclosed in Thai contexts.

Objectives

The aims of the paper are to present and discuss a MALL-designed intervention by explaining the key interventions using WhatsApp, a mobile app, to boost EFL learners' speaking skills, and to present preliminary findings based on qualitative data.

Research Methodology

This study is part of the larger quasi - experimental research project on how to enhance accuracy of speaking skills by using WhatsApp for Thai EFL students at a secondary school in Trang Province, Thailand. Eighty Thai students studying fundamental English in Grade 11 from two classes were chosen randomly with purposive sampling after they were asked to do the survey questionnaire to check the ownership of smartphones with an Internet package as a basic requirement of the project. Then, they were assigned to participate in speaking tasks for five weeks via WhatsApp via the implementation of the designed intervention.

However, in this paper, the focus is on the MALL-based intervention as part of the design part of the project, while preliminary findings were based on qualitative data collected and analyzed from interviews to examine student perceptions as part of the larger project.

Findings and Discussion

Through exploring the conceptual framework of MALL and scaffolding processes, the intervention was designed by using WhatsApp as an intermediary instructional tool to enhance speaking skills for EFL learners. The project focused on the development of Thai EFL learners by successive hinting steps adapted from Lantolf and Poehner (2011). Their moves are ordered from most implicit (saying again) to most explicit (explanation) steps through WhatsApp.

Step 1: Teacher asks students to say again

Step 2: Repeat the whole phrase questioningly

Step 3: Repeat just the part of the sentence with the error

Step 4: Teacher points out that there is something wrong with the sentence

Step 5: Teacher points out the incorrect word(s)

Step 6: Teacher asks either/or questions

Step 7: Teacher identifies the correct answer(s)

Step 8: Teacher explains why via WhatsApp

During the project, the teacher provided a WhatsApp-based task and learners completed a task by recording their voice and sent it to the teacher. The dynamic assessment took place as scaffolding processes then. With correct responses all hints were not provided. If the student's responses were in incorrect forms, the teacher followed the designed scaffolding steps to support learners via WhatsApp (see Figure 1). In addition, during these processes for five weeks, the teacher also provided the information, tips, videos, pictures as learning resources, which encouraged learners to develop learners' speaking skills via WhatsApp. The students had three minutes to respond to a task once a week (on Thursday afternoons) during the project.

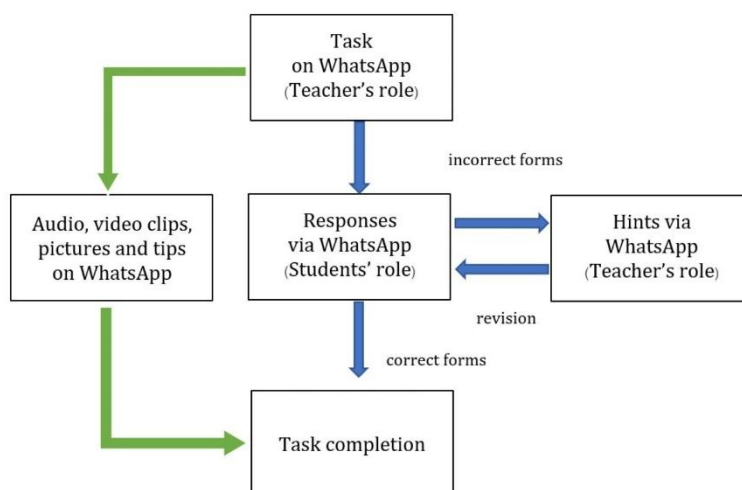


Figure 1 A MALL-Based Intervention for Speaking Skills

Preliminary findings revealed that learners had positive perceptions of using WhatsApp for speaking skills and benefited from the intervention including timely feedback from the teacher with extra learning resources. As one of the students said,

"This practice allowed me to develop my speaking skills in a variety of learning aspects such as pronunciation, grammar usage, and confidence. My speaking skills improved because of teacher suggestions during the responding activities which helped me recognize and correct my errors via WhatsApp. Moreover, videos, tips and audio files which were posted on WhatsApp also assisted me in improving speaking skills." (Student A)



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Learners also realized that their English-speaking skills improved from the teacher's responses to individuals. Moreover, provided information, pictures, audio and video resources from a teacher on WhatsApp can promote their learning via the teacher-student interaction.

The MALL-designed intervention on WhatsApp in this study suggests collaborative learning between a teacher and learners to improve learners' speaking skills as aligned with Agnes Kukukska-Hulme and Lesley Shield as cited in Godwin-Jones (2011). With the timely affordances of WhatsApp as a mobile app, the teacher and learners can communicate and access information without restriction of time and place. In addition, WhatsApp on mobile phones supports language learning through multiple communication channels providing interactive feedback and additional information through audio, video, texts, images for both groups and individuals in order to enhance speaking skills. Godwin-Jones (2011) mentioned that mobile phones can bridge the skill gap of both learners and teachers by providing opportunities for educational use.

After applying a MALL-designed intervention in this study, some reflection revealed that WhatsApp interactive activities had positive effects on learners' speaking development that is consistent with previous studies (Sun et al., 2017; Xu, 2020). The timely responses from teachers to learners, which learners preferred and enjoyed also suggest the perceived value of MALL and mobile devices by learners for learning as claimed by Kukukska-Hulme (2018) and Godwin-Jones (2011).

However, there are some challenges of a MALL-designed intervention that EFL teacher encountered in doing activities. First, timely responses of the teacher sometimes were not met as desired because of too many learners doing activities at the same time and the teacher needed to takes a longer time for analyzing individual learners' responses. The learners' perception showed that they lacked continuous communication with the teacher and they had to wait for feedback before moving to the next step. Another challenge was unstable Internet connection. As claimed by some learners, when they sent their voice messages, they had a problem uploading voice data.

Conclusion

In conclusion, the MALL-designed intervention on WhatsApp was presented in this paper, providing another instructional intervention for enhancing speaking skills according to learners' perceptions. The intervention can provide a teacher and learners with a collaborative space on mobile devices to enhance teaching and learning speaking skills in an EFL context in the 21st century where mobile technology has been integrated into language education. It is advocated that EFL teachers should adopt MALL into their

teaching practice due to learning opportunities for learners, especially during the current COVID-19 pandemic where many educational institutions have to adopt online learning.

As mentioned earlier, this paper explored and discussed a MALL-designed intervention by using WhatsApp to enhance EFL learners' speaking skills. With the positive perception of the MALL-designed intervention, the MALL approach should be promoted at Thai schools where mobile devices are available and this approach should be adapted continuously in language teaching and learning. This study also contributes to the knowledge base where EFL teachers are encouraged to plan a MALL-based intervention by collaborating with learners in augmenting different English language skills in online learning environments.

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PAPER 2

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Effectiveness of Mobile Assisted Language Learning (MALL)-Based Intervention on Developing Thai EFL Learners' Oral Accuracy

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Effectiveness of Mobile Assisted Language Learning (MALL)-Based Intervention on Developing Thai EFL Learners' Oral Accuracy

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Abstract

With the rapid growth of digital technology, mobile phones are widely used for EFL teaching and learning. However, little is known about the effectiveness of integrating a mobile application into EFL classrooms to improve oral accuracy in Thai school contexts. An instructional intervention grounded with Mobile Assisted Language Learning (MALL) and dynamic assessment in Thai EFL contexts needs to be further investigated. This quasi – experimental study aimed to investigate the effectiveness of a mobile-based intervention to develop Thai EFL learners' speaking. Thirty students from a secondary school in southern Thailand were assigned to complete five oral tasks through the dynamic assessment process as an intervention on WhatsApp in order to develop their oral accuracy. Quantitative data were collected from the oral pre-test and post-test to examine the students' speaking development by utilizing the paired samples t-test. The results showed a significant difference between the pre-test and post-test after the implementation of the MALL-based intervention. It could be suggested that the application of the MALL-based intervention could develop EFL learners' oral accuracy in Thai school contexts. Implementations and recommendations of this study are discussed.

Introduction

Today, digital technology has played important roles in English as a Foreign Language (EFL) contexts. Literature has suggested that EFL teachers should integrate technology into their teaching through designing appropriate activities as a medium connecting between the instructor and learners in order to enhance 21st Century skills (Eaton, 2010; Gurgenedze, 2018; Joldanova et al., 2022). In addition, teachers can utilize mobile technologies such as mobile devices to promote EFL learners' 21st century learning skills (Howlett & Waemusa, 2019). In terms of educational applications, the features of mobile devices can be leveraged to encourage unconfident learners to personalize their own learning and facilitate these learners through collaborative learning to access information anytime and anywhere (Kukulaska-Hulme, 2018).

The concept of mobile devices as mediated tools in the pedagogical process and the mobile-assisted language learning (MALL) approach has been introduced through using mobile devices to improve language learning (Chinnery, 2006). MALL-based studies which investigated language learning improvement advocated the

effectiveness of MALL (Kamasak et al., 2021; Xu, 2020) through technology affordance via audio, video, text, image, and interactive features of mobile devices. A recent study reported that Thai EFL learners at high schools had difficulties in producing accuracy in language learning (Tanmongkola et al., 2020). Despite the advocacy of MALL applications, little has been known about how the integration of MALL in supporting language learning among Thai EFL learners, especially their speaking skills and oral accuracy.

With the evidence of MALL effectiveness in language learning (Alkhudair, 2020; Chang & Lan, 2021; Indrastana & Rinda, 2021), it is suggested integrating MALL with dynamic assessment (DA) into the process of pedagogical intervention, which should be promoted in order to enhance EFL students' oral accuracy. Inspired from Vygotsky's Sociocultural Theory, such DA intervention is applied to evaluate learners' performance while also promoting learning development through mediation in order to support learners' learning at different learning stages (Lantolf & Poehner, 2007). A MALL-based intervention can boost a collaborative space between learners and a teacher through dynamic assessment.

In EFL contexts, many studies showed the positive effects of using DA to enhance learners' speaking skills (Sun et al., 2017; Xu, 2020) and also to increase the positive perception among learners (Ahn & Lee, 2016; Almadhady, 2021). However, most of the studies in DA to enhance speaking skills in EFL contexts have only been conducted in face-to-face environments. It is challenging to investigate some appropriate mediation to integrate with DA (Lidz & Gindis, 2003). A mobile phone as a mediation should be integrated with DA and some studies reveal the positive effect of mobile-based dynamic assessment to enhance general language skills (Andujar, 2020; Ebadi & Bashir, 2021; Mocinpour et al., 2019; Rad, 2021).

Language teachers should understand the opportunities technology offers when designing and introducing a technology-integrated language classroom activity (Sharma & Hannafin, 2007). Choosing a mobile application to support activities and peer collaboration of the DA process is challenging, especially during the COVID 19 pandemic when learners are distant from school and they may not be familiar with a chosen technology. WhatsApp, a mobile application, has more than two billion active users worldwide and it is ranked as the most used mobile messenger app in the world (Dean, 2021a). In terms of language learning, many studies indicated that WhatsApp can be applied to facilitate learners' learning, for example to improve their speaking skills (Akkara et al., 2020; Andújar-Vaca & Cruz-Martínez, 2017) and positive attitude (Tahounchchi, 2021). With timely feedback in text messages, pictures and resource files, learners are also able to access materials anytime and anywhere (Sibplang, 2021). Theoretically, WhatsApp can provide learning opportunities to learners when it is used in a MALL-based intervention with the DA process to boost speaking skills.

Developing speaking skills for accuracy in EFL contexts is still challenging for researchers and educators. Speaking skills are significant for communication, consisting of accuracy, fluency and complexity (Skehan & Foster, 1997), all of which necessitate L2 learners' language proficiency. In her reviews, Chu (2011) mentioned that accuracy seems to be disregarded in development speaking skills of EFL learners. From Chu's (2011) remark, fluency becomes dominating in EFL research while accuracy and complexity are analyzed to be parts of fluency. In addition, well-known teaching methods in EFL contexts such as communicative language teaching and task-

based language teaching are meant to focus on learners' fluency.

During the COVID 19 pandemic, most Thai schools have shifted to online learning, and mobile devices have become prevalent among Thai learners when learning online (Petchprasert, 2020). In Thailand, mobile devices are important in learning online and could become a mediator between teachers and learners through various integrated approaches (Thaoyabut et al., 2021; Wongsuriya, 2020). Yet, little is known about the effectiveness of how to integrate MALL with DA process via WhatsApp on enhancing EFL learners' oral accuracy, a learning problem which still exists in Thai school contexts (Tanmongkola et al., 2020). The integration of DA within the MALL approach intervention via WhatsApp should be investigated to help Thai EFL students who need support from online teachers with learning online during the epidemic COVID-19 situation in Thai EFL contexts. Due to the school closure policy (Lao, 2020), this intervention can address the educational need where online learning takes place and teachers as well as students should shift their pedagogical practices from onsite to online settings. To cope with this gap, this study attempts to explore the effects of a MALL-based intervention with the DA process on Thai EFL learners' oral accuracy.

Background

MALL and Its Educational Values

Mobile Assisted Language Learning (MALL) is a learning approach that utilizes mobile devices such as mobile phones, tablets, MP3 players, podcasting to improve language competency (Chinnery, 2006). To Chinnery, the portability and connection of mobile devices are two of their most important features. In terms of connectivity, the mobile system must be able to connect and communicate with the learning website utilizing the device's wireless network to access learning material including short messaging service (SMS) and e-mail (Miangah & Nezarat, 2012). If learners' learning devices are movable, the learners can move the devices around and bring their learning resources with them (Huang & Sun, 2010).

In educational contexts, it is claimed that the use of mobile technology can facilitate learners' 21st century learning skills (Howlett & Waemusa, 2019). According to the Framework for 21st Century Learning (Battelle for Kids, 2019), the education in this century has gained importance in terms of ensuring that students develop their innovation, creativity, and teamwork, and they should learn how to apply those life skills to everyday activities. The use of mobile devices can facilitate learners to achieve these goals. Using mobile devices as an accessible mediation to provide feedback can share learning experiences between a teacher and learners (Godwin-Jones, 2011). It is suggested the use of mobile devices as mediation to collaborate in language learning can enhance speaking skills (Kukulka-Hulme & Shield, 2007).

With the support of MALL tools, EFL learners can be provided with learning resources through audio, video, text, image and interactive features of mobile devices to get exposed to authentic language learning (Chinnery, 2006). From the MALL perspective, it could be argued that it is not always necessary for EFL learners to study a language in a school setting (Chusanachoti, 2009) because their learning can be on their mobile devices whenever and wherever they prefer based on their learning style (Miangah & Nezarat, 2012).

Dynamic Assessment and Language Learning

Dynamic Assessment (DA) is a pedagogical approach which integrates teaching with evaluation, and teachers can provide consistent and effective assistance based on learners' development goals (Lidz & Peña, 1996). Influenced by Vygotsky's Zone of Proximal Development (ZPD), this approach is utilized to assess learner performance in relation to their ZPD (Lantolf & Poehner, 2011; Poehner & Lantolf, 2005). Vygotsky (1978) explains the ZPD is "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined under adult guidance or in collaboration with more capable peers" (p. 86). When applied to a learning setting, ZPD implies that interactions between beginner learners and a more skilled and experienced person or More Knowledgeable Others (MKO), such as a teacher, can promote learning (Behrooznia, 2014) through the use of mediators. In the DA process, an MKO can adjust the level of mediation in order to fit a student's current level of performance through providing various forms of scaffolding such as a structure or set of guidelines, asking questions, and giving frequent feedback for accomplishing the task (Gallimore & Tharp, 1990).

In EFL contexts, previous studies on DA showed the enhancement of language skills and also indicated the positive effects of DA on language learning (Ebadi & Asakerch, 2017; Hessamy & Ghaderi, 2014; Khoshsima & Farokhipours, 2016), including speaking skills. However, DA-based studies which investigated speaking skills are limited in formal research contexts, especially in Thai school contexts, where teachers can provide learners with an opportunity to practice speaking between the teacher and learners through a designed intervention with feedback, learning resources, and digital technology as a mediated tool.

During the pandemic situation with school closure in Thailand, technology is an option to support language learning in this situation with communication without the limited time and place (Segev, 2014). The teacher can apply mobile technology to be a part of the dynamic assessment process as a mediator to provide appropriate scaffolding to support the learners in developing language learning in different skills.

WhatsApp as a MALL Tool and MDA

Mobile technology is ubiquitous these days and shapes human communication. WhatsApp, one of the most extensively utilized and popular communication mobile platforms by global users (Dean, 2021b), is a smartphone-based instant messaging application that allows users to send and receive messages in a variety of formats, including text, image, video, and voice messages (Church & De Oliveira, 2013). This mobile application can be chosen as the mediation between the teacher and learners to boost speaking skills (Khan et al., 2021; Mustafa, 2018). In addition, it is convenient for learners to access learning resources on WhatsApp any time any place and can share messages with each other as collaborative learning (La Hanisi et al., 2018).

With the educational benefits of WhatsApp providing the supportive atmosphere as a learning community, it can be integrated with dynamic assessments because WhatsApp can support collaborative learning (La Hanisi et al., 2018). This integration can facilitate learners with communication between teachers and learners such as feedback,

suggestions and learning resources to enhance speaking skills. The teacher can take the advantages of these features of WhatsApp to design language leaning to enhance learners' speaking skills by providing an opportunity for communication between the teacher and learners.

In this current study, the researchers take the advantage of mobile devices and WhatsApp and used DA with scaffolding processes adapted from Lantolf and Poehner (2011), in order to support EFL learners to improve their speaking skills (Tarighat & Khodabakhsh, 2016). Lantolf and Poehner (2011) utilized DA as scaffolding processes in a language classroom to illustrate interactions between a Spanish teacher and learners. According to the scaffolding framework in their project, the instructor provided an inventory of teacher prompts consisting of eight hints in order to support learners to increase their language skills and this framework also was modulated and applied in this study. However, research on utilizing WhatsApp as a part of scaffolding process for enhancing the speaking skills of Thai EFL learners is limited and it is not clear how to scaffold EFL learners with timely feedback to improve oral accuracy on WhatsApp.

Related Literature about MALL-Based Interventions in EFL Speaking Skills

Researchers have given interest in the integration of mobile technologies for educational purposes and many favor this implication for enhancing language learning. Like other mobile devices, mobile phones, provided with internet access services and different applications, are considered as widespread tools and are used in language learning. Using mobile phones in language learning as MALL is still a great interest and a steady preoccupation of researchers over these 10 years (Panagiotis & Krystalli, 2020) including the MALL approach to enhance speaking.

Previous studies indicated the positive effects of WhatsApp on English language learning especially for developing speaking skills (Akkara et al., 2020; Mustafa, 2018) and supporting collaborative learning (La Hanisi et al., 2018). With the affordances of WhatsApp to support speaking skills via the scaffolding intervention, MALL-based intervention or MALL-based dynamic assessment (MDA), the term coined in the study of Rezaee et al. (2019), can provide a collaborative space and a learning opportunity for learners to use English as an extension of classroom discussion and allows teachers to provide additional practice and monitor students' learning achievements.

Although a few studies have investigated the integration of MALL with DA in enhancing language learning by using WhatsApp, little is known about Thai EFL school contexts. Rezaee et al. (2019), for example, investigated the effects of MDA on oral accuracy of pre-intermediate Iranian EFL learners who were assigned to complete tasks on WhatsApp by using a text-chat and a voice-chat in a higher education context. The post-test results indicated that there was the significant development of oral accuracy after providing feedback in each task on WhatsApp. Moreover, the text-chat group outperformed the voice-chat group in such development.

The outperforming results of a text-chat group over the voice-chat group with WhatsApp in enhancing language development was also confirmed later by the studies of Rezaee et al. (2020) and Ebadi and Bashir (2021). In

Rezaee et al.'s (2020) study, pre-intermediate learners of English completed eight oral tasks via text-chats, voice-chats on WhatsApp, and face-to-face to improve oral fluency. These learners received the dynamic assessment intervention. The post-test results found that MDA via text-chat and voice-chat could improve learners' speaking fluency much more than those with the traditional face-to-face dynamic assessment.

Similarly, a recent study by Ebadi and Bashir (2021) indicated the positive effects of MDA on learners' language development and also showed favorable results for those with text-chat tasks (but in improving writing skills). However, gauging the participants' perception, they seemed satisfied with the voice-based mediation in terms of opportunity, confidence, and improvement. The learners agreed that the voice from the teacher influenced learners' confidence when the teachers interacted with the learners through voice-based mediation, allowing the teachers to explain and to modify faster and more effectively than that through text-based mediation.

Although previous studies of MDA revealed the positive effects toward language skills of EFL learners, these favorable results cannot be assumed in other contexts, including Thai EFL contexts. In addition, an investigation of WhatsApp-based intervention in focusing on oral accuracy in using English proficiency is still limited in Thailand. MALL-based intervention has been claimed to provide positive results for language development among EFL learners but little is known about the application of MALL to Thai EFL contexts especially high school learners by using WhatsApp, a mobile application. As Chinnery (2006) called for the application of MALL in language learning due to the paucity of MALL research and implications to language learning, this study aimed to respond to this call by investigating the effectiveness of the application of a mobile application on speaking skills and this would fill the gap in a specific context of Thai EFL school education.

Method

Research Purpose and Questions

This article reported on the results as part of a larger quasi-experimental research project which aimed to investigate the effects of MALL-based intervention by using WhatsApp on Thai EFL learners' oral accuracy which refers to oral production without linguistic errors. The specific question was: Are there any significant differences of oral accuracy improvement between before and after provided mobile-based intervention of Thai EFL learners? How often are the teacher-student interactions via WhatsApp-based MDA in each oral task?

Participants

Eighty Thai male and female students, aged 17 and studying English as a foreign language in Grade 11 in an English course with the lower intermediate English proficiency level at a secondary school in southern Thailand, were invited to participate in the research project voluntarily. The participant criteria included owning a smartphone with an internet package. Therefore, a questionnaire was used to identify the eligible participants. Out of eighty students, through purposive sampling, thirty students with smartphones and internet packages joined the project voluntarily and were selected to be the participants of this study project.

Instruments

The instruments of this study were a questionnaire, oral tasks and oral pre- and post-tests. The questionnaire was employed to assess the smartphone ownership and the internet package of students and comprised seven questions aimed at gathering information on their daily use of mobile devices. During the treatment section, five oral tasks were utilized to develop oral speaking for five weeks during an English course. Students had three minutes to task by recording their voice and sent a clip, weekly, to the teacher via WhatsApp. To evaluate each students' speaking progress, an oral pre-test and oral post-test, which consisted of three tasks, were given to the participants twice: one before and the other one after completing five spoken activities via WhatsApp in order to evaluate the development of participants after receiving mobile-based intervention. To ensure the validity of the test, three experts in the English language field were asked to evaluate the test and give comments for the tool improvement. To ensure the reliability of the tests, a test of internal consistency reliability (Cronbach's $\alpha = .87$) was conducted.

Data Collection

This study applied a mobile-based dynamic assessment (MDA) intervention boosting oral accuracy of Thai EFL learners' speaking. Before the data collection, this study followed the ethical guidance approved by the Center for Social and Behavioral Science Institutional Review Board, Prince of Songkla University, Thailand.

At the beginning of the project, the students were introduced and trained to use WhatsApp for necessary features in an orientation session. Then, they took an oral pre-test via WhatsApp. During the MALL based intervention for five weeks, the students completed the tasks via WhatsApp by recording their 3-minute voice clip each week outside of the class hours and sending it to the English native teacher. To analyze their responses before returning the feedback to learners via WhatsApp, the teacher used the scaffolding guidelines adopted from Pochner and Lantolf (2005), from most implicit to most explicit ones. These scaffolding steps are as follows:

- Step 1: Teacher asks students to say again
- Step 2: Repeat the whole phrase questioningly
- Step 3: Repeat just the part of the sentence with the error
- Step 4: Teacher points out that there is something wrong with the sentence
- Step 5: Teacher points out the incorrect word
- Step 6: Teacher asks either/or question
- Step 7: Teacher identifies the correct answer
- Step 8: Teacher explains why via WhatsApp

To facilitate learners' speaking with these scaffolding steps, the teacher provided information, recommendations, videos, and other resources via WhatsApp to support participants to improve their oral speaking during MALL based intervention process over the course of five weeks (see Figure 1). After the implementation of the MALL-based intervention for five weeks, the learners were assigned to do the oral post-test in order to evaluate their oral production.

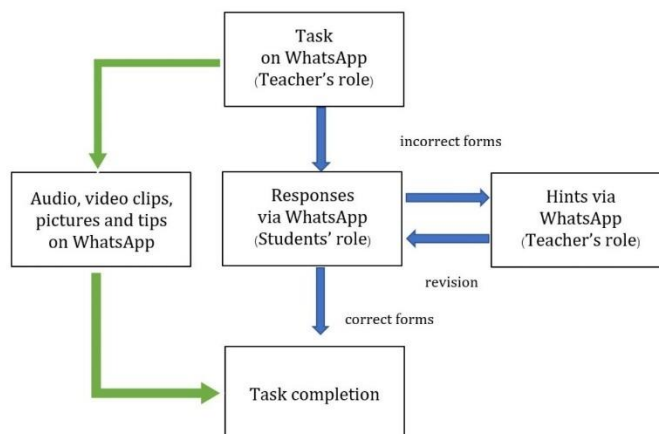


Figure 1. MALL-Based Intervention for Speaking Skills

Data Analysis

The scores from the pre- and post-tests which indicate oral accuracy, referring to how closely a learner follows the target language's rule structure (Bui & Skehan, 2018), were measured by calculating the number of error-free clauses as a percentage of the total number of clauses (Robinson, 2001; Skehan & Foster, 1997) based on the guidelines adapted from (Polio, 1997). The paired samples t-test was used to compare the scores from pre-test and post-test in order to analyze the relationship between the intervention and the learners' oral accuracy. In addition, the mean and standard deviation were used to measure the frequency of teacher-student responses via WhatsApp-based MDA in each task.

Results and Discussion

The research questions of the study aimed at investigating whether there was any significant effect of MDA on speaking of EFL learners after the intervention. The results were shown in Table 1.

Table 1. Test Performance (n=30)

Pretest		Posttest		Paired-Sample t-Test		
Mean	SD	Mean	SD	<i>t</i>	df	<i>p</i>
.48	.23	.74	.17	-7.03	29	.00*

Note. * $p < .01$

The results show that the mean score of all tasks from pre-test ($M=.48$) and post-test ($M=.74$) indicated the different improvement of their speaking significantly after the MDA intervention. In comparison of the results between the before and after treatment of MDA, a significant difference of the mean scores between the pre-test and post-test was found ($p=0.00$) at the significant level of .01, suggesting that the learners showed the development of oral accuracy after the treatment of MDA and this confirmed the effectiveness of MALL-based intervention for improving the learners' oral accuracy.

In addition, to understand the MDA-based interactions between the teacher and the students, the data of the frequency of the teacher-student responses on WhatsApp from the scaffolding steps in each task were calculated and the mean scores in each task also indicated the scaffolding process as shown in Table 2.

Table 2. Frequency of Teacher-student Responses in Each Task (n=30)

	Task 1	Task 2	Task 3	Task 4	Task 5	Overall
Mean	3.57	4.27	3.43	2.80	1.13	3.04
SD	2.82	2.68	2.62	2.78	1.92	1.52

The mean scores in Task 1 (M=3.57, SD=2.82), Task 2 (M=4.27, SD=2.68) and Task 3 (M=3.43, SD=2.62) were between 3.00 – 4.30, suggesting that the participants could complete these tasks after receiving scaffolding Step 3 (repeat just the part of the sentence with the error) and Step 4 (point out that there is something wrong with the sentence). However, the mean score in Task 4 (M=2.80, SD=2.78) seemed to be less frequent than the previous tasks. The participants had completed Task 4 with scaffolding Step 2 (repeat the whole phrase questioningly) and Step 3 (repeat just the part of the sentence with the error) from the teacher. For the last task, the mean score was the lowest (M=1.13, SD=1.92) of all. This may suggest the learners' development had less support from the teacher as an MKO because the participants completed Task 5 with scaffolding Step 1 (say again) and Step 2 (repeat the whole phrase questioningly). In addition, the mean score for overall tasks (M=3.04, SD= 1.52) presents that the participants mostly completed oral tasks with the scaffolding at Step 3 (repeat just the part of the sentence with the error).

This study investigated the effectiveness of MALL-based intervention on Thai EFL learners' oral accuracy. The results indicated that learners showed a significant development of oral accuracy after the MDA intervention. The results confirmed the positive effects of MALL-based intervention on English learning skills as reported by previous studies (Ashraf et al., 2016; Tarighat & Khodabakhsh, 2016; Rezaee et al., 2020).

The results in this study may be explained by the fact that the MDA intervention allows learners to interact, with the feedback of the teacher as an MKO, through the scaffolding process (Lantolf & Poehner, 2011), via their mobile devices. That facilitates learners with portability and connectivity beyond the boundaries of place and time. As Godwin (2021) asserted, using mobile technologies can be an accessible mediation between teachers and learners as a collaborative space, thus providing interactive learning resources for learners to enhance their oral accuracy. This practice is aligned with Thai EFL learners who have mobile phones to access in their everyday life, thus providing them with the learning space wherever and whenever they want (Miangah & Nezarat, 2012).

Moreover, through the MDA, teachers and learners can engage with speaking tasks to examine the learners' current level of performance on any task beyond the classroom wall. In the MDA process, the teacher could provide the feedback and suggestions with assistance that helps learners to identify their strengths and weaknesses in line with the notion of ZPD. The learners then could develop their learning through social interactions with the teacher to improve oral accuracy, indicating the possible collaborative space between the teacher and the learners via mobile devices (Godwin-Jones, 2011) and this is feasible in a Thai school context if the MDA intervention is

designed properly in a technology-enhanced learning environment as suggested by Sharma and Hannafin (2007). This study also could extend the study of Wongsuriya (2020) by using mobile applications to enhance young Thai learners' speaking, not only their pronunciation but also oral accuracy, suggesting that teachers are key to enhancing Thai young learners' English learning skills, especially oral accuracy.

Another explanation for the improvement of learners' language development in the results is the affordance features of MALL, the ability to access of MALL which allows learners to reach learning resources such as audios, videos, texts, and images on WhatsApp to enhance oral accuracy without limitation of time and place (Kukulskahulme & Traxler, 2007). As Miangah and Nezarat (2012) asserted, learning in a comfortable environment and scaffolding different levels of students are key factors in helping learners succeed in learning language with MALL. In addition, the use of WhatsApp can facilitate language learning through multiple communication channels which could support corroborative learning (Godwin-Jones, 2011) as the mediation in interactions between learners and a teacher. The teacher can provide interactive feedback via WhatsApp to enhance oral accuracy and these interactions provide opportunities for using language in order to bridge the skill-gap of both learners and teachers as aligned with Godwin-Jones (2011).

In conclusion, the results of this study indicated that MALL-based intervention had a significant positive effect on developing oral accuracy of Thai EFL young learners, filling the gap in a paucity of formal research in a Thai EFL context, providing empirical evidence that a MALL-based intervention can develop Thai EFL oral accuracy if designed appropriately.

Conclusion

The purpose of this study was to investigate the effectiveness of the MDA intervention on Thai EFL learners' oral accuracy via using WhatsApp. The results showed that using the MDA had a significant influence on enhancing the learners' oral accuracy. These results also provide the important insights into how to maximize the use of available mobile devices to incorporate with classroom practices, in which today Thai EFL teachers face the online teaching practices with the school closure policy due to the Covid-19 pandemic and they are urged to integrate technology into their online teaching practices (Lao, 2020).

In this study, the MDA-based intervention illustrates its value to improve oral accuracy in a Thai EFL context. MDA, as a scaffolding processes, provides an opportunity for Thai EFL learners to practice speaking with interaction with the teacher through intervention. In order to improve learners' oral accuracy, the teacher can provide feedback in the form of scaffolding based on the ZPD of individual learners and WhatsApp as a mediator to be taken advantage of in MALL while supporting the process of DA. With the capability of WhatsApp, the teacher and students can interact in the peer collaboration and receive responses regardless of time and location.

This study sheds light on how to design the MALL-based intervention with a mobile device to scaffold EFL learners. However, one major drawback of this approach is the teacher's workload increases with a large class. Since many learners join the oral activities via WhatsApp at the same time, the teacher may need a longer time to

evaluate individual students' responses and this activity might reduce the promptness of their feedback. Moreover, limitations involving a stable internet connection in some local contexts should be noted for future preparation. Unsteady internet connections seem to cause learners problems uploading voice data when sending tasks with voice communication. Further work needs to be conducted to establish the effects of MALL-based intervention on other speaking skill aspects such as fluency, complexity, or the perceptions of EFL students after receiving the MALL-based intervention. Taken together, this study suggests that a MALL-based intervention should be a priority for Thai EFL teachers and policy makers to leverage the practical implication of everyday mobile devices in pedagogical practices for educational purposes.

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