MOBILE-ASSISTED LANGUAGE LEARNING VIA WHATSAPP GROUP: INTERACTION PATTERNS AND TEACHER PERSPECTIVES

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A B S T R A C T S

Mobile-Assisted Language Learning (MALL) is increasingly favored for its flexibility. This study analyzes interaction patterns in an L2 English training conducted entirely using WhatsApp group chat and examines the teacher's perspective. Discourse analysis revealed a flexible Initiation-Response-Feedback (IRF) pattern, with students occasionally initiating turns. Emoticons and voice notes fostered emotional connections and mitigated direct feedback. The teacher found WhatsApp valuable for practicing all language skills, stressing the need for small group sizes. The study also noted discrepancies in adjacency pairs, which could be addressed using the direct reply feature to enhance conversational coherence and pedagogical effectiveness. Additionally, the study suggests combining the WhatsApp group chat with offline classes to increase students' sense of responsibility and participation in the discussion.

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INTRODUCTION

Currently, more variations of technology either computer-mediated or mobile-mediated is adopted to aid Education. The adoption of technology in Education, especially with the widespread internet coverage in the world, is one way to guarantee access to education regardless of distance and time. Based on the Information and Communication technology figures provided by ITU (2021), approximately 4.9 billion people, or 63 percent of the world's population make use of the internet and mobile network coverage has covered nearly the whole world population. A number of research has covered the study of Computer Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) (Burston, 2015; Fu & Hwang, 2018; Sharifi et al., 2018). These studies highlight technology-based instruction as opposed to traditional face-to-face instruction in which they have found that there are several factors affecting the execution of the lesson, such as curriculum integration and practical consideration. However, Andujar & Salaberri-Ramiro (2021) stated that most importantly to increase learning engagement, language teachers need to be aware of the condition of the targeted environment before designing a technology-assisted language learning to address students' needs.

Social networking platforms such as WhatsApp are normally used in every environment nowadays and their users have increased over time. According to Statista (2022), WhatsApp is the most popular global messenger app as of January 2022; with 2000 million active users monthly. This number is above WeChat, Facebook Messenger, QQ, Snap Chat, and Telegram

with 1.263, 988, 474, 557, and 550 million users per month respectively. Considering the coverage of WhatsApp, it is obvious that this platform can be used as one of the apps to navigate mobile-assisted language learning as found by Andujar (2019) WhatsApp is one of the useful tools to aid blended learning. Following its users' needs, WhatsApp keeps on updating its features. On its first launch, it only accommodated writing-based chat, but currently, it also accommodates voice notes, various emoticons and stickers, large file exchanges, message editing, and many others. These features allow multi-modal communication to happen anywhere and anytime just by making several easy clicks on our cell phones.

Studies on learning interventions using WhatsApp have been conducted in a variety of settings and these studies yield positive results. Han & Keskin (2016) found that speaking practice using WhatsApp significantly lowered second language (L2) speaking anxiety. In other words, it can be inferred that the aforementioned medium could lower the affective filter of L2 learners. Research coined by Zunaidah et al. (2022) stated that English L2 learning instruction based on task-based teaching that is specifically designed to be delivered by WhatsApp is known to increase learners' performance and participation because it allows repetition, elaboration, and longer duration to access the material. Research in EFL classes in Barcelona suggested that compared to the face-to-face class, the use of the target language (TL) is higher when L2 learning is conducted through the written mode of expression in messaging platforms such as WhatsApp (MacKay et al., 2021). Sherine et al. (2020) found that WhatsApp with its multi-modal communication enhances students' speaking skills in terms of coherency, lexical resource, grammatical range and accuracy, and pronunciation. Jafari & Chalak (2016) found that extra training using WhatsApp resulted in more vocabulary retention.

Following the development of the WhatsApp features, L2 learning through WhatsApp allows L2 learners to convey not only verbal communication but also non-verbal communication. Andujar & Salaberri-Ramiro (2021) found that L2 learners in their study strengthen emotion and intonation through facial expressions depicted through emoticons. It was also found that overlapping turns and pauses were quite frequent during the interaction, especially when the number of participants in the chat group was high. In terms of turn-formulation, WhatsApp communication allowed the conversation to be recorded on cell phones, and therefore L2 students could read and re-read previous messages and have more time to adjust the conversation (Markman, 2013), and could have more opportunities for pedagogical re-thinking (Andujar & Salaberri-Ramiro, 2021). Yet, due to different turns and overlapping, one negative side of L2 learning through WhatsApp is that the L2 students could potentially get lost in the interaction (Simpson, 2005).

In Classroom interaction, the interaction between teacher and students is often in the form of an Initiation, Response, Feedback (IRF) pattern. IRF is a teacher-led interaction cycle between teachers and students (Hall, 2022). Hall (2022) stated that Initiation (I) typically is in the form of teacher questions or instruction, Response (R) is the statement given in response to the Initiation, and Feedback (F) serves as the final stage of the interaction in which one party will evaluate or provide feedback about the response. To this end, many research has been conducted to study interactional patterns in face-to-face classrooms (e.g. Daşkın, 2015; Gardner, 2019; Long, 2017 ; Sari, 2020). The IRF (Initiation-Response-Feedback) pattern in a classroom lesson is easier to manage because both the teacher and students can see each other's expressions and gestures. Consequently, the teacher's effort to allocate turns is not only communicated through words, but is also reinforced by non-verbal cues. Additionally, when students want to take a turn, they can easily raise their hands or simply call out. Sari, (2020) found that the turn-taking mechanism between teachers and students during a lesson is asymmetrical. While it is sure that the teacher is primarily responsible for allocating turns,

students can also nominate themselves, although sometimes have to wait until the teacher yields the floor.

Studies examining the interaction pattern of Mobile-Assisted Language Learning (MALL) are also increasing, not only in a face-to-face classroom setting. In the case of MALL facilitated by WhatsApp, most research so far has focused on measuring efficacy or observing the interaction patterns of WhatsApp group chats used to extend learning beyond actual synchronous online class or offline class (e.g. Jafari & Chalak, 2016; MacKay et al., 2021; Plana et al., 2013; Tragant et al., 2022). These studies mainly recommend WhatsApp as a medium to enhance the learning experience outside the classroom because it facilitates negotiation of meaning and enhances interaction by allowing the sharing of texts, emoticons, voice recordings, documents, and images. Considering the positive results of recent studies, it is important to highlight the growing attention towards L2 training through Mobile-Assisted Language Learning (MALL) platforms, such as WhatsApp, since the pandemic. However, research on class interactions both between teachers and students, and among students themselves in a fully MALL-based L2 class using WhatsApp is still limited. This research is crucial because WhatsApp is favored for its practicality and continuously evolving features.

To fill this knowledge gap, this study presents a case study of free English training for a women's empowerment organization in East Java. The training was fully conducted online through WhatsApp group chat, without any online or offline synchronous meetings. The participants of the training chose WhatsApp group chat as the learning medium due to their busy schedules as housewives and small-scale business owners, which required frequent mobility. Therefore, WhatsApp was considered more practical for them. Additionally, not all participants were capable to access and use common online meeting platforms, such as Zoom or Skype. To be specific, this study is interested in examining the management of Interaction in a full mobile-mediated education through WhatsApp. It's necessary to evaluate the interaction to find ways to improve class participation and suggest a better way to utilize WhatsApp as an L2 teaching and learning platform. To achieve these goals, two research questions were formulated as follows: a) How is interaction managed in a fully WhatsApp-based L2 lesson?; b) How are the perspectives of L2 English teachers who manage the interaction in a fully WhatsApp based L2 lesson?

RESEARCH METHOD
Research Design
This study adopted a qualitative research methodology that involved discourse analysis and semi-structured interviews. These strategies were chosen as discourse analysis allowed the researcher to investigate the characteristics of the written interaction in the WhatsApp chat during the teaching and learning process. In addition, the semi-structured interview that followed the discourse analysis allowed the researcher to gather more insights from the teacher who acted as the facilitator of the virtual classroom.

Subject
The subject of this study is a WhatsApp group containing ten adult L2 English learners and several L2 English instructors who work in shifts. The group was created for eight weeks of free English training to empower the members of women's organizations in East Java. The L2 English training covered basic English communication related to daily life topics, such as self-introduction of food, directions, houses, and body parts. The online session through WhatsApp happened once a week, every Saturday for three hours, from 11.00 am until 01.00 pm. That particular time was agreed upon by both parties; the teachers and the students. At every session, there will be one trainer acting as a language teacher. The participants could study the material and post some questions outside the designated times, but structured training

with the instructors happened within the agreed time frame. Also, a fast response from the teacher was guaranteed only within that aforementioned timeframe.

Instruments

To analyze the WhatsApp group's interaction during the teaching and learning process, the researcher used Initiation Response and Feedback model as the main guideline for analyzing the virtual classroom interaction. Initiation refers to questions or any form of statements to trigger discussion, Response refers to answers or any type of statements that follow the Initiation stage, whereas Feedback is the statement to evaluate responses.

In order to gather insights from the L2 teacher who acted as the facilitator of the WhatsApp group, this study employed semi-structured interviews. The interview was conducted in Indonesian, the researcher's and the L2's first language, to mitigate misunderstanding. Generally, the interview aimed to obtain two pieces of information; (1) the trainers' attitude toward conducting English training for community development via WhatsApp, (2) their opinion related to the findings, specifically their reason for the chosen type of interaction and their evaluation about the overall mobile-assisted language learning under study.

Data Analysis

To answer a question related to the interaction pattern, any form of interaction involved in the chat, such as written text, emoticons, stickers, voice notes, documents, and pictures were analyzed thoroughly and coded following the Initiation Response and Feedback (IRF) model. This model is chosen because previous research about interaction in classroom setting mostly in the form of IRF. The data in the form of a written chat with visual media, such as emoticons and pictures were presented in the findings in the form of screenshots, whereas the voice notes were carefully transcribed and presented as an excerpt. To ensure the confidentiality of the teacher and students, all names were saved using code.

The results of the semi-structured interview were transcribed carefully and translated into English. The data then were grouped based on themes: "Positive Sides of WhatsApp as Teaching Media", "Teacher's Role, and "Use of WhatsApp Features (emoticon, voice notes)". Those coded data then are presented in this study in a cohesive manner in the form of excerpt.

RESEARCH FINDINGS AND DISCUSSION
Research Findings

Teacher-Student Interaction & Students interaction

The same as the face-to-face and online video conference classes which adopted focus-on-form, the interaction in an online class through WhatsApp mainly adopts the Initiation Reference Feedback (IRF) model. The teacher mainly initiates the interaction by posing instructions or questions (I). To clarify the instruction or questions, the teacher gave examples to help the students understand the question and provide the correct answer. Then, students respond (R) by either answering the questions or asking questions to clarify the meaning. Lastly, the teacher provides feedback for the student's answers. (see Figure 1 for a sample of a chat in which the teacher initiates turn by posing instructions and the student provides answers)

Figure 1. The teacher asks question (I), and a student gives an answer (R)

In Figure 1, the teacher initiates the turn by asking the students to mention the type of furniture in their houses. Then, to stimulate the students, she also gives some examples of furniture in her home. Student 1 (S1) responds by listing 16 pieces of furniture in his house. Lastly, after several other responses from other students who also try to answer the questions, the teacher starts to give feedback for each answer. She gives compliments, such as "great", "nice" (followed by hand clapping icon), and "well done" (followed by smiley face emoticon). (see Figure 2 for a sample of Teacher feedback)

Figure 2. Sample of teacher feedback

As also shown in Figure 2, WhatsApp's direct reply feature allows the teacher to provide specific feedback for each answer without making the conversation look confusing.

There is also some evidence of which students initiated the turn. When it happened, they mainly delivered questions to clarify the meaning. (see Figure 3 for the example of IRF cycled start by the student).

Figure 3. IRF starts by the student

In Figure 3, Student 1 initiates the interaction by asking a question related to the meaning of Household. The teacher, then, explains and closes the explanation by giving a smiley emoticon. Following the explanation, there is a stretch of meaning negotiation in which Student 1 tries to clarify his understanding by asking "Furniture?" then the teacher replies by saying, "Yes Sir, followed by a smiley emoticon". The teacher also seems to favor direct corrective feedback rather than indirect feedback such as recast. Yet, it is worth noting that after giving the correction, she always put smiley emoticons or love emoticons.

Students are also seen to interact with other students, they comment on other students' statements. (see figure 4).

Figure 4. Student-student interaction

Figure 4 shows a stretch of written conversation in which the students wait for the teacher to provide voice notes for pronunciation practice. Students express their attention by writing "Okay Miss", and "I'm waiting Miss". Then, there is Student 3 saying, "be patient (followed by emoticon)", as a response to Student 2's statement. This type of interaction happens quite often, sometimes they joke, comment on each other, or give feedback and encouragement.

In addition to written messages, the teacher sends many voice notes. She uses voice notes to open the class, introduce herself and the topic, and teach pronunciation. WhatsApp also allows the students to send their voice notes, so the teacher could give them feedback, especially related to pronunciation. (See excerpt 1 for the transcribed version of the teacher's instruction and the student's response in voice notes.

Excerpt 1: Teacher Instruction (I), Student (R), Teacher Feedback (F)

Teacher: Please pronounce this word "/ˈætɪk/"

Student 1: "/ˈætɪk/" (R)

Teacher: Well done. What about other students?

It is interesting that in the WhatsApp group, it was observable that students start to be more confident, they do not only ask questions via written message, but they also send voice notes. (see Excerpt 2 for the transcribed version of a student's question)

Excerpt 2

Student 3: Hmm...I heard that bathroom and bedroom are the same?

As shown in Excerpt 2, Student 1 asks about how to pronounce the words bedroom and bathroom as he could not differentiate the pronunciation. Student 1 does not speak in grammatical order, but he is pretty confident to record his voice. The teacher could understand the exact meaning of his question because they are in the middle of a discussion about the pronunciation of vocabulary related to the type of rooms in a house. However, instead of replying in voice notes, the teacher replying the question in written text. (See Figure 5. Teacher-students interaction with voice notes and written text)
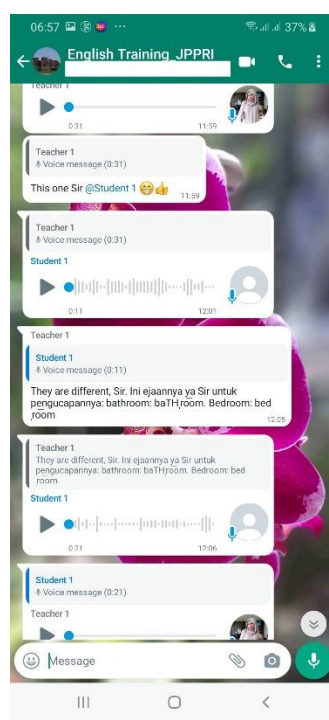

Figure 5. Teacher-student interaction (voice notes & written text)

Figure 5 shows a stretch of the message between teacher and student 1. Their messages in Figure 5 consist of many voice notes. However, the teacher surprisingly replies to the question

by using written text that is written in the Roman alphabet, not in the phonetics symbol. The text was meant to explain the spelling and pronunciation of the words "bedroom" and "bathroom". Following the teacher's explanation, Student 1 sent another voice note to confirm his understanding. Lastly, the teacher sends voice notes to give final feedback. In her voice note, she praises student 1 and sends the pronunciation sample of the words one more time.

On the analysis, it is evident that there were times when the teachers try to initiate turns by posing questions or tasks but students were not responding at all. A sample of the interaction is depicted in Figure 6.
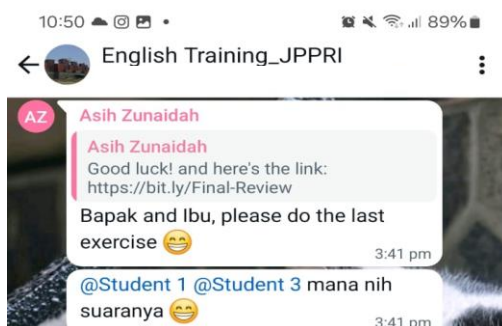

Figure 6. Sample on the teacher utterance without any respond from the students.

As shown in Figure 6, the teacher switched to L1 (Indonesian) to ask for students' participation, but the students still did not respond. Additionally, in some of the interactions, it was found that students deviated from the teacher's instruction or script. When this occurred, they usually talked about other topics or simply responded to their friends who mistakenly sent unrelated messages. When this situation happened, students mostly shifted to their L1. During the analysis, interactions were observed only between, the teacher, Student 1, Student 2, and Student 3. This leads to the conclusion that only a small number of students were following the training attentively.

To sum up, the interaction and features of classroom interaction are listed the following.
1. IRF pattern dominated most of the teacher-student interaction in which the teacher mainly initiates the turn by giving questions or instructions. Then, students respond. Lastly, feedback is provided by the teacher.
2. Students only initiate the turn when they have difficulty or questions. When it happened, the IRF always involved the negotiation of meaning. In this case, the pattern would be: (1) Student asks a question (I), (2) Teacher explains (R), (3) Students clarify their understanding (negotiation of the meaning), (4) Teacher gives final confirmation (feedback)
3. In WhatsApp, in addition to written messages, the interaction involves emoticons and voice notes.
4. Feedback is always in the form of direct corrective feedback that is occasionally followed by emoticons.
5. Interaction between students occurred with the help of the "direct reply" feature in WhatsApp group chat.
6. There is evidence of delayed responses from the students and instances where students deviated from the teacher's instruction, leading to breakdowns in the IRF interaction cycle.
7. Only small amounts of student, around three out of ten students, were active during the training sessions.

Teacher Attitude & Evaluation toward the WhatsApp Class

In the interview, the teacher states that Language training via WhatsApp has its own positive and negative sides. Having courses via WhatsApp allows the teacher and participants to join the training without having too much effort. It does not require mobility and

sophisticated devices. On top of that, mobile-assisted language learning gave both the teacher and the student opportunity to multitask. However, it may also reduce participants' and teachers' commitment to fully concentrate on the class, and therefore the engagement is not as high as in face-to-face classes and online classes via video conference.

> "Because we can also do other activities while also participating in the WhatsApp group, there are only three students who participate actively. But it's okay other students could read the chat and study the material later" (Teacher).

The teacher also states that WhatsApp is quite supportive to be used as a medium to teach a second language.

> "It allows us to send voice notes, stickers, documents, emoticons, and many others. We can train the students' writing, reading, listening and speaking skills through this app" (Teacher).

In terms of interaction, the teacher is aware that she mainly acts as the main actor who navigates the turns, and therefore the teacher is seen to be more dominant compared to students.

> "I feel more dominant, that is why I like to use voice notes, not only to give instruction or feedback but also to introduce myself and compliment the students. By using voice notes I feel that I could reduce the distance between teacher and students" (Teacher)

The teacher underlines the importance of using voice notes to express emotion and build engagement.

> "We cannot see each other. So, we can feel each other present by making use of voice notes.. through voice notes we could also feel the emotions of others." (Teacher)

In addition to voice notes, the emoticon is also deemed to be important to encourage students and also to mitigate direct corrective feedback.

> "I tend to be direct since I don't think there is much room to provide indirect feedback in MALL via WhatsApp.. I'm afraid students might misinterpret the feedback if it is indirect.. for this reason.. I like to give stickers and emoticons." (Teacher)

Focusing on the fact that the L2 class under study is a free language training for community development, she suggests that it would be better to reduce the number of meetings and also the duration of each meeting as students have limited attention spans, especially in MALL where the teacher cannot fully monitor the student. Moreover, in free language training where the students are not required to participate actively.

Discussion

The present study aimed at depicting the interaction in a L2 English training conducted fully on WhatsApp group. The finding of this study indicates that interaction of the Mobile-Assisted Language Learning (MALL) course via WhatsApp are mainly in the form of Initiation Response Feedback (IRF). The same as conventional face-to-face learning, the teacher in the free English training course under study acts as the one who is responsible to allocate the turn. Following (Andujar & Salaberri-Ramiro, 2021), this study also found that overlapping turns are quite frequent. Yet, the teacher is still able to manage the class using the direct reply features for direct communication between users in a WhatsApp group. This feature does help the teacher in addressing each question without creating too much confusion among participants of the group. Thus, the teacher in this case-study setting emphasizes that teaching through WhatsApp requires more focus as the teacher needs to be able to scroll quickly and make sure every question has been addressed properly.

Response (R) from the students can also be in the form of emoticons. This code helps teacher-student interaction as students often indicate their understanding by reacting directly to teacher utterances using emoticons. As found in Banafshi et al. (2020), this case study also finds that the Initiation (I) parts of the IRF cycle are not always occupied by the teacher, instead, the students can initiate the structural turn. Not only that, students also found to comment on each other utterances while the teacher is still typing, and therefore sometimes

resulted in disrupted adjacency. Disrupted adjacency does not happen very often in face-to-face classroom interaction (Banafshi et al., 2020). Thus, it can be concluded that the IRF pattern of the L2 class via WhatsApp is more flexible to the point that is not completely teacher-centered. For this reason, the number of students in an L2 training on WhatsApp should be restricted.

Feedback plays a central role as a final confirmation of students' responses. In this study, the teacher utilizes many emoticons to accompany her written feedback, either positive feedback or direct corrective feedback. Emoticons in online interactions appeared to be important as found in (Moffitt et al., 2020) that happy face emoticons inject some warmth, connection, and emotion in written online feedback without reducing the quality of the feedback and professionalism of the teacher. In addition, emoticons could also create social presence or intimacy and immediacy between users (Padgett et al., 2021). These studies are in line with the teacher's idea that emoticons could mitigate her straightforward style in giving feedback and reducing the distance between teacher and student.

Other digital cues, such as voice notes are also used excessively by the teacher. She claims that in addition to being a learning tool for training speaking and pronunciation, this medium can build social connections between teachers and students. Additionally, voice notes can convey emotion through intonation. The teacher's consistency in sending voice notes also seems to encourage the students to record their voices and practice asking questions, creating an authentic atmosphere for L2 learning. This approach aligns with Han & Keskin, (2016) and Rambe & Chipunza (2013) who found that L2 learning through WhatsApp provided unrestricted and low-anxiety environments, and the voice notes feature promotes confidence (Abdullah & Yamat, 2022).

However, it is unfortunate that in this study, out of ten students, only three students were active during the discussion. In the setting where WhatsApp is used to extend activities from the offline L2 class, low participation rates are often because WhatsApp activities are voluntary and not part of the course assessment (Tragant et al., 2022). Whereas, in this study low level of participation might be attributed to the students feeling less connected to teachers and their classmates due to never having met in person and established connection. The low rate of participation was surprising and would be worth exploring in further research.

In line with (Andujar, 2019; Han & Keskin, 2016),(MacKay et al., 2021; Sherine et al., 2020), the finding from the interaction analysis and teacher interview indicates that WhatsApp features; written chat, WhatsApp group, emoticons, direct messages, voice notes, and document sharing have played important roles in making L2 classes through WhatsApp possible. By using this application, it is evident that students learn how to write, read, listen, and speak in the target language. The teacher, however, points out that even though the IRF seems casual, and language training through WhatsApp seems to be more flexible, MALL through WhatsApp requires the teacher or facilitator to be more focused and dedicated as the teacher has limitations to restrict students' interaction. Therefore, while also typing messages, a teacher should carefully monitor the chat, in case some important questions or comments need to be addressed.

CONCLUSION

This study was designed to analyze the interaction cycle in a free L2 training program for community development using WhatsApp groups. Based on interaction analysis and teacher interviews, WhatsApp emerged as a viable medium for teaching L2, enabling students to practice writing, reading, pronunciation, listening in the target language. The interaction pattern primarily follows the IRF (Initiation, Response, Feedback) model. However, the IRF model on WhatsApp appears more flexible, as students can initiate turns and interact with each other during teacher's turn. The WhatsApp group's "direct reply" feature helps mitigate

disrupted adjacency pairs and provides specific feedback to individual students. Other features, such as emoticons and voice notes, play a central role in interactions by mitigating the face-threatening nature of direct corrective feedback and encouraging greater student participation. Emoticons and voice notes also enhance the emotional connection between participants, strengthening the communication conveyed in the written text.

These findings offer pedagogical implications for L2 training, demonstrating that conducting training on WhatsApp is feasible. However, it is crucial to ensure the number of participants remains manageable for the teacher, who needs to monitor the chat continuously to address specific questions or comments. The evolving features of WhatsApp, such as direct messages, emoticons, and voice notes, enhance the quality of interaction, facilitating feedback and other types of activities essential for L2 learning.

Nonetheless, to foster stronger connections and stimulate student engagement, some offline meetings should be conducted to evaluate the learning experience on WhatsApp. The study found that in a fully WhatsApp-based class, only a small number of students were active, highlighting the need for occasional in-person interactions.

Analyzing WhatsApp group chats and conducting teacher interviews might not be sufficient to fully understand the implementation of L2 training through WhatsApp. It is equally important to consider students' perspectives, as both teachers and students play crucial roles in the teaching and learning process. Understanding students' perspectives can help explain why only a small number of students were active. To address this issue, future studies should explore students' perceptions of language training via WhatsApp. This study can help identify and mitigate potential challenges faced by students in L2 training on WhatsApp.

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