School of Education

Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

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Declaration

To the best of my knowledge this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number # HRE2020-0500

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Abstract

The integration between task-based language teaching and computer-mediated communication (CMC) has been recognised as a practical approach for fostering additional online language learning and use. This approach has become relevant due to the advancement of multimodal CMC channel features that support multimodal synchronous communication via text, audio, and video-based chat. In Indonesian context, where classroom opportunities for language practice may be limited, the use of the CMC platform, especially Instagram, provides a valuable space for students to apply their language skills outside the formal classroom. This study aimed to explore Indonesia university students' experiences and their language use in completing multimodal CMC tasks via Instagram to foster their English language communication based on sociocognitive perspectives as a framework.

This study employed a case study with mixed methods design to gather data on several aspects comprehensively: Students' perceptions of engaging in multimodal CMC tasks via Instagram chats, the role of nonverbal cues in online communication, the affordances of Instagram chats for fostering language learning, and how students achieved multimodal interactive alignment during online communication. Thirty-six Indonesian university students, 18 males and females, with English proficiency levels of at least A2 (based on CEFR), participated by completing nine communicative tasks. These tasks included information gap, opinion gap, and reasoning gap tasks conducted through Instagram chats: text, audio, and video. Data were collected using multiple methods, including surveys, students' reflective journals, semi-structured interviews, and the discourse of students' interaction during CMC tasks. The results from pre- and post-study surveys were analysed quantitatively using the Wilcoxon signed-rank test. Thematic analysis was applied to investigate students' journal entries and interview responses, whilst discourse analysis of the students' interaction was conducted using multimodal interaction analysis (MIA), which focused on examining multimodal interactive alignments (e.g., how interlocutors adapt, prime, and reuse verbal and nonverbal cues to achieve communication goals) that occurred during CMC task interaction.

Findings revealed that students generally perceived positive experiences during this study with significant differences in before and after participation primarily related to completing CMC tasks via Instagram (z = -2.88, p = .004, and effect size of r = .48), in their use of nonverbal

cues (z = -2.89, p = .004, and effect size of r = .48) and the affordances of Instagram chat features (z = -3.23, p = .001, and effect size of r = .53). Thematic analysis revealed that CMC tasks boosted their motivation and engagement, enhanced their self-confidence and willingness to communicate, fostered enjoyment and digital literacy. Students also reported that nonverbal cues features provided by the Instagram channels, such as emojis, GIFs, images in text chat, intonation in voice chat, and gestures in video chat, facilitated effective communication. Examples include using the thumbs-up sign 👍 for quick appreciative response, a face with tears of joy 😂 for humour and closeness, or some iconic/deictic gestures for encouraging peer participation. Students also adapted and reused various nonverbal features and verbal cues to convey and comprehend meaning during CMC task completion. However, some challenges were noted, such as poor Internet connections, lack of consciousness of student agency when interacting in video chats, and high anxiety at the beginning of task implementation were also documented during student task performance. The findings suggest that multimodal CMC channels enhance accessibility and allow language students to communicate spontaneously, unrehearsed, and real-life relevant using rich semiotic resources. This approach creates an engaging, nurturing, and enjoyable learning atmosphere, and is especially beneficial for Indonesian students who are accustomed to learning English in classroom settings and following standard unauthentic English curricula.

Dissemination of Findings

Publications

Muntaha, M., Chen, J., & Dobinson, T. (2023). Exploring Students' Experiences of Using Multimodal CMC Tasks for English Communication. *Educational Technology & Society*, *26*(3), 69-83. https://www.j-ets.net/collection/published-issues/26_3

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Presentations

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Chapter 1
Introduction

1.1 Background

The rapid development of digital technology has profoundly influenced various aspects of our lives, including education and communication. A key area of progress in this field is the growth of computer-mediated communication (CMC), which has evolved to embrace diverse modes of interaction. In language learning, multimodal CMC has emerged as an indispensable tool for students and educators that provides unique communicative opportunities and experiences through various platforms, such as email, social networking sites and videoconferencing (Wigham & Satar, 2021). Each platform offers varied experiences for language students due to its distinct communication possibilities for users. Thus, integrating a multimodal environment in online language education and exploring the potential benefits of different types of CMC have become essential research domains in computer-assisted language learning (CALL) studies and additional-language (LX, following Dewaele, 2018) learning approaches (Guichon & Cohen, 2016).

In face-to-face (FTF) classroom settings for LX learning in the past, students mainly depended on in-person interactions, hard-copy resources or prescriptive PowerPoint presentations (PPTs). The emergence of digital technology, however, has transformed this model. CMC now offers a multimodal platform that allows users to communicate through text, images, video and even gestures. This rich medium creates an interactive learning environment wherein students can actively engage with various content forms, understand cultural values more deeply and enhance their language skills holistically through different communication channels (e.g., Hampel & Stickler, 2012; Jin, 2017). Additionally, multimodal CMC facilitates authentic interaction with other English users, which may improve students' language proficiency and cultural comprehension. Exposure to real-world language use in varied contexts and through different modalities enables students to build their communicative competence and digital literacy—vital skills in today's globalised world. The unique affordances of CMC platforms have been recognised as key factors that can influence the quality and effectiveness of online LX learning experiences. Each communication platform offers unique advantages for language

learning, as they support distinct modes of communication for daily life interaction personally. For example, text chat fosters written communication by which students may draft their messages carefully and reflect on their language use (Namaziandost et al., 2021). By contrast, video conferencing supports synchronous audio-visual communication that provides opportunities for real-time spoken exchanges using visual cues, such as facial expressions and gestures, to convey messages (Satar, 2016).

Social networking sites (SNSs) are the most widely used form of CMC worldwide. These platforms facilitate synchronous and asynchronous communication and provide various communication channel options, including text, audio and video. SNSs have emerged as the evolution of CMC (Gambo & Özad, 2020) and play an important role in LX learning and teaching (Reinhardt, 2020). Globally, a platform like Instagram, which enables users to share images, text, audio and video, has gained enormous popularity alongside TikTok, Facebook and X (Walsh, 2021). In the Indonesian context, the popularity of Instagram has soared among teenagers and young adults, who employ this platform extensively in their daily social-life tasks (Yonatan, 2023). These tasks range from scheduling meetings, discussing personal feelings or promoting commercial sales for individual services and products (Prihantoro & Zulizilah, 2017). Instagram's popularity among the younger generation in Indonesia is evidenced in the total number of Instagram users, which had reached more than 91 million as of 2021 (NapoleonCat, 2021); approximately 80% of these users are aged between 13 and 34 (Nurhayati-Wolff, 2021).

Despite Instagram's extensive use in LX learning, much of the research has predominantly concentrated on investigating its roles for disseminating learning resources and promoting student engagement with shared content in the LX educational context, then finally encouraging students to interact in the comments section during online LX learning (e.g., Park & Wu, 2020; Yudhiantara & Nuryantini, 2019). Only a limited number of studies, however, have investigated the role of Instagram's synchronous CMC features, such as text, audio and video chats and their multimodal aspects in LX learning. Considering that Instagram's multimodal chat features provide students with authenticity, real-life relevance and meaning-driven communication, their investigation within the context of the task-based language teaching (TBLT) framework is highly relevant. TBLT emphasises learning language through authentic, spontaneous and meaningful real-life tasks (Ellis, 2003). Moreover, González-Lloret

and Ortega (2014b) suggest the necessity of integrating not only research-based instruction but also pedagogically feasible models—in this case, TBLT—with digital technology for LX learning and teaching to attain optimal results. While digital technology provides innovative tools for language learning, its practical use necessitates a solid pedagogical framework informed by thorough research. This approach ensures that the technology is used in a manner that aligns with language principles and students' learning needs and interests (González-Lloret & Rock, 2022).

These multimodal features can also help students develop their communicative competence by allowing them to employ various forms of nonverbal cues to transmit messages. Such features also help students better understand language and its vital role in social interaction. The affordances of these features influence students' communication behaviours and prompt teachers and educators to rethink the theoretical and methodological approaches employed in LX learning in the context of the digital era. By adopting prominent LX learning and teaching theories (e.g., sociocognitive, TBLT) as pedagogical frameworks and multimodal interaction analysis (MIA) as an analysis toolkit, this study sought to ascertain how students experienced and engaged in authentic digital communication practice, especially when they were involved in multimodal CMC tasks for fostering English communication through Instagram.

1.1.1 English-language teaching in Indonesia

Historically, before gaining independence from Dutch colonial rule in 1945, the predominant European language spoken in Indonesia was Dutch due to its essential role as the official language for administrative and educational purposes (Juanda et al., 2022). The Malay language was also broadly spoken across the archipelago and served as a *lingua franca* that could connect various ethnic groups in terms of economic purposes. Indonesia is a multilingual nation, with over 700 local languages and dialects spoken among more than 300 ethnic groups (Widodo & Fardhani, 2011). In 1928, however, the country's youth nationalists declared Bahasa Indonesia, which was adapted from Malay, as the national language. This move aimed to promote unity and strengthen bonds among the diverse population to emerge from the shadow of colonisation (Dewi, 2011). It also symbolised national pride and solidarity (Lauder, 2008); therefore, the newly formed government reinforced the notion of using Bahasa

Indonesia as the national language after the country secured its independence in August 1945 (Nababan, 1991).

During the colonial era, European languages were taught as LX. Dutch, French, German and English were taught, although they were mainly restricted to the European community in Dutch-medium secondary schools (Zein et al., 2020). After independence, however, the Indonesian government selected English as the primary LX to complement Bahasa Indonesia despite the longstanding Dutch influence in Indonesia (Dardjowidjojo, 2000). Several factors informed this decision. Firstly, the growing global prominence of English made it a more powerful tool for a global *lingua franca* than Dutch; secondly, the Dutch language carried associations with the painful colonisation and oppression endured by Indonesians (Dewi, 2016). Hence, starting in the era of the new-order regime, between 1967 and 1998, the Indonesian government prioritised English as an LX in the national education curriculum. This policy was enacted in the presidential decree No. 28/1990 that made English a compulsory subject in secondary and tertiary educational curricula (Zein et al., 2020).

Meanwhile, the approach to teaching and learning English in Indonesia evolved dramatically. At first, the government started by implementing the grammar-translation method, which emphasised translating English texts into Indonesian. In 1975, the government introduced an oral approach to LX learning that centred on sounds, pronunciation and expressions for cultivating listening and speaking skills (Zein et al., 2020). This oral approach lasted until 1984, when the curriculum underwent another transformation inspired by the communicative approach, which highlighted the significance of meaning and function in language teaching (Pajarwati et al., 2021). This model was adopted by the 1994 curriculum, which emphasised the communicative notion of *meaningfulness* and allowed themes to play a more prominent role than linguistic elements. In the 2000s, the Ministry of National Education developed the competence-based local education unit curricula to develop students' communicative competence. In 2013, the curriculum focus on systemic functional linguistics (SFL) and genre-based approaches (GBA) for developing communicative competence and 21st-century skills (Widodo, 2016). In the Indonesian context, English-language teaching still faces systematic challenges. Although the curriculum suggests that teachers use the communicative approach, many still follow the old teaching approach for various reasons, such as the schools' predominant teaching model's heavy emphasis on the traditional teacher-centred approach, the

typical class size (exceeding 30–40 students per classroom) and the focus on formal testing based on paper tests' assessment of receptive language skills (Zein et al., 2020).

1.1.2 Technology in LX teaching and learning in Indonesia

The Ministry of Education has advocated the adoption of technology within Indonesian pedagogical practices since 2012 by mandating that educators use technology in their instructional methodologies (Mali, 2016). Initially, the emphasis was predominantly on using computers, projectors and other audio-visual tools to present the teaching materials and resources. With the widespread use of the internet, however, information and communication technology has evolved to become an inseparable facilitator of LX learning in the digital era (Jie & Sunze, 2021). The incorporation of digital technology is amplified by its ability to provide authentic materials and extend the opportunity to communicate in real-life contexts anytime and anywhere, including beyond the classroom walls, which can assist in developing students' communicative competence (Hidayat et al., 2022). This shift is relevant to the net-generation students—those who grew up surrounded by technology and are proficient in leveraging it (Rintaningrum, 2023). Additionally, the prevalence of affordable smartphones available for daily use further facilitates their tech savvy because these devices are accessible to the masses (Huzairin et al., 2020).

Previous research has revealed that using technology for pedagogical purposes through CMC application has positively affected English learning outside the classroom in Indonesia (Warni et al., 2018). For example, Susanto et al. (2021) examined the effect of using Facebook-aided lesson study instruction versus traditional classroom methods to enhance literature review writing skills among two groups (i.e., a treatment and control) of 30 English-language students. The findings reveal that additional discussion through Facebook helped students write literature reviews better than students in traditional classrooms. Imamyartha et al. (2022) used WhatsApp to facilitate English for academic purposes for students to collaborate on analysing and composing an exploratory genre text in a team-based learning model during the COVID-19 pandemic. Students perceived the usefulness of WhatsApp chat as conducive for boosting their motivation and engagement in English-learning activities. Additionally, WhatsApp chats encourage students to be involved in their learning communities.

Another CMC application, Instagram, has also been recognised as a compelling tool for potentially positively affecting English learning. A study by Prasetyawati and Ardi (2020) highlighted how using Instagram in writing classes could make them more engaging and effective. The class framework required students to share their written descriptions of selected pictures via Instagram posts while inviting comments from their peers. This setup fostered student engagement, as the interactive nature of Instagram allowed students to become more deeply involved in their peers' comments. This activity of posting and replying to comments encouraged interaction and collaboration among the students while empowering them to adopt their preferred learning styles within a social media environment. Yudhiantara and Nuryantini (2019) also explored using Instagram to enhance students' English communicative competencies. They found that Instagram facilitated students' honing of their writing ability by creating multimodal content posted on their Instagram pages. To ensure the content's acceptance, students invited viewers to comment on it. This practice fostered an engaging learning environment where students could produce and review content and provided a dynamic language-learning experience.

Drawing on the selected studies above, it is evident that using CMC as an educational platform can effectively broaden the limitations of FTF classroom settings in many contexts. It can transform classrooms into socially vibrant learning environments where interactive learning is encouraged and central to the educational experience. This approach can do more than merely promote higher levels of student engagement; it can also provide opportunities for individualised learning within a broader educational context. Employing multimodal CMC platforms, especially Instagram, to foster English communicative competence presents an opportunity to innovate educational approaches in Indonesia (Fortuna et al., 2021). It could be that its rich features, such as direct messaging, images, emojis and videos, offer a multifaceted platform for students to engage with authentic linguistic content and practise language skills and both linguistic and non-linguistic resources enhanced by interactive multimodal channels to complement their language production and ways of expression (Sarangapani & Hashim, 2022). Based on the evident opportunities provided by Instagram, it is likely that this approach aligns with TBLT, which emphasises the importance of meaningful communication and the application of language skills. Incorporating Instagram into English-language pedagogy in Indonesia holds substantial promise. It not only aligns with the digital nativity of today's students but also complements the educational goal of developing proficient, confident English

speakers equipped to navigate the global linguistic landscape and create more inclusive, engaging and effective educational experiences tailored to meet the evolving demands of language education in the current era.

1.2 Research aims and research questions

This study explored using multimodal CMC tasks carried out through Instagram by first-year economic and business school students outside the conventional classroom setting at a private university in Central Java Province, Indonesia. The main objective was to understand the students' experiences and examine their English-language use while completing these tasks. To fulfil this objective, two principal research questions were raised, along with one sub-question each:

1. How did students perceive completing multimodal CMC tasks via Instagram outside the classroom?
    1a. What were students' experiences with completing CMC tasks via Instagram?
2. What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom?
    2a. In what ways did students display multimodal interactive alignment in CMC tasks via Instagram outside the classroom?

1.3 Rationale and significance of study

The rationale and significance of the study are threefold; each will be discussed in detail below. First, the literature has pointed out that incorporating familiar CMC, especially Instagram chats, to foster language learning is essential in this digital era, where all learning processes are conducted online, especially during the COVID-19 pandemic (e.g., Imamyartha et al., 2022). Scholars agree that communication technology, specifically social media, helps students extend their regular learning in the formal classroom (Huang et al., 2022; Xue & Churchill, 2020; Yang, 2020). Promoting learning outside the school is believed to be an essential learning process in Indonesia, as students can get more input and opportunity to use English frequently. Now, with technology, all language-learning materials can be accessed anytime, anywhere, without any additional cost. The existence of social media tends to help students be involved in LX interaction in the actual context (Hamat & Abu Hassan, 2019).

On the other hand, learning in a formal classroom might sometimes feel too formalistic and not serve the authentic language needs of the students, such as learning about communication for making an appointment, discussing choosing a holiday destination or giving opinions about current issues with their peers. The primary outcome of this study is to provide valuable information on students' experiences with multimodal CMC tasks beyond the classroom. Despite the research discussed earlier suggesting that Instagram promotes effective language learning, the fact is that many Instagram activities are still characterised by one-way dialogue, in which the students must give feedback and comment on their friends' or teacher's posts (see Hilman, 2019). Although many scholars have investigated Instagram for LX learning in the Indonesian (Subekti & Damaryanan, 2023), Afghan (Ibrahim & Basim, 2024), Saudi Arabian (Aloraini, 2018) and Kazakh (Ramazanova et al., 2022) contexts; no studies have identified Instagram's affordances for multimodal LX communication. This study, therefore, fills a gap in the research about the use of multimodal Instagram chats to foster English communication. It may contribute to the body of research on factors that affect the success of implementing social media for language learning in Indonesia and other countries with which it shares quite similar characteristics.

This approach underscores the critical role of technology in creating enriched learning environments where students can practise their language skills in contextually meaningful ways. For example, Instagram offers a spontaneous and interactive setting for task-based activities that allow students to engage in language practices authentically. To my best knowledge, there is still limited research exploring the implications of integrating TBLT with an Instagram platform in enhancing English language learning in the Indonesian context (e.g., Misnawati et al., 2022; Tarigan et al., 2021). Investigating this integration could yield valuable insights into how digital platforms can be effectively harnessed to support language acquisition for Indonesian students, who often do not have adequate time and opportunity to practise LX in the formal classroom (Maruf et al., 2020). Such research could contribute to developing more relevant effective language-teaching strategies tailored to the needs and realities of students in the Indonesian context.

In addition, numerous studies have explored students' language use within task-based interactions (e.g., Fang et al., 2021; Masuram & Sripada, 2020), yet research on interactive alignment that uses nonverbal cues is scarce. Investigating the successful alignment achieved

through verbal and nonverbal modes is a crucial conduit for collaboration and engagement, enhancing communication and facilitating language acquisition (Tekin et al., 2022). Integrating nonverbal cues could provide an alternative to the traditional language-teaching approaches in Indonesian educational settings, where language is rigorously pursued within classroom settings before being applied to real-world communication scenarios. Recognising the importance of nonverbal communication, such as gestures, facial expressions and body language, could offer more holistic communication (Diamantopoulou & Ørevik, 2022). These comprehensive strategies could bridge the divide between theoretical language instruction and practical language use, providing students with the tools to navigate formal and informal communication contexts with more confidence. Researching and investigating interactive alignment is significant and has the potential to inform the future direction of language-learning programs, particularly in Indonesia.

1.4 Research methodology

The focus of the study conducted and described here was to explore the experiences of first-year economic and business school students at a private Indonesian university as they engaged with English-language use during CMC tasks via Instagram outside the FTF classroom setting. The study aimed to provide an in-depth understanding of how these students used Instagram for language-learning tasks, examined their English-language usage involving nonverbal cues while completing these tasks and investigated how students build multimodal interaction alignment for successful communication. To comprehensively explore these learning experiences and language use, the study adopted a case-study design, a methodology that is effective in investigating specific phenomena within their real-life contexts (Mackey & Gass, 2015). This methodological choice was predicated on the belief that a case study could offer a rich, in-depth, contextual analysis of the phenomena under investigation. According to Yin (2018), a case study's strength lies in its ability to scrutinise the case in its natural setting, thus yielding insights that are both profound and pertinent to the participants' real-world experiences. Furthermore, Christensen et al. (2015) highlighted the case study's capacity to provide an intensive, detailed description and analysis of one or more instances, thereby enabling an understanding of the complex dynamics at play.

The case boundary of this study was the English for communication unit. The unit of analysis consisted of nine CMC tasks, including reasoning, opinion and information gap tasks (three each). This study explored how students used different channels, modalities and features of Instagram chats to communicate in English, involving text, voice and video chat. Additionally, the study examined how nonverbal cues, such as emojis, GIFs, images, gestures, gaze and facial expressions, enhance English communication through Instagram chats. The case-study approach allowed for a detailed exploration of the context and experiences of the participants that provided a thorough understanding of the phenomenon being investigated. Such an approach was particularly relevant in language learning and teaching, where individual and contextual factors were critical in shaping the language-learning process (Yin, 2003, 2018).

Four distinct data sources were compiled to gather a comprehensive understanding of the students' experiences and language use in the current study. Each data source offered a unique lens through which to view the phenomena under investigation, including pre- and post-study surveys, students' reflection journals, semi-structured interviews and chat interaction discourse. The survey items were designed to capture a snapshot of students' experiences at two critical junctures: before the initiation of the CMC tasks and after their completion of the tasks. The pre-study survey was administered to gauge students' prior experiences and opinions about using CMC platforms to complete English-communication tasks. This preliminary data collection served as a baseline alongside which any shifts in experiences or perceptions could be measured. Additionally, the post-study survey was deployed after the students finished all nine task sessions and aimed to reassess and track any changes in the students' experiences with and perceptions of using CMC tasks to foster English communication.

Complementing these quantitative measures from the closed-ended survey items above were the students' reflection journals and interviews, first-person insights into their learning journeys. Students were encouraged to introspect and document their thoughts, challenges, successes and evolving perceptions through these journals throughout the task sessions. This reflective practice deepened their engagement with the learning process and provided the research with individual learning-experience narratives. Semi-structured interviews further enriched the data that emerged from the surveys and journals. These interviews facilitated a deeper dialogue between the participants and myself to clarify survey responses, expand journal entries and explore aspects of the students' experiences that might not have been fully

captured through written media. The chat-interaction artifacts showed the students' engagement with the CMC tasks. These artifacts, which included snippets of authentic synchronous conversations, shared media and interactive exchanges, offered a window into the practical application of English communication within the CMC environment. Together, these four data sources holistically captured the breadth and depth of students' engagement with English-language learning through CMC tasks on Instagram.

In the data-analysis process, I employed an approach that integrated both qualitative and quantitative analytical techniques to ensure a robust examination of the collected data. Quantitatively, I analysed the survey data by examining the frequencies of students' responses to various questions. This involved calculating descriptive statistics to summarise and describe the key features of our data set in a quantifiable manner. To add depth to this analysis, I also conducted the Wilcoxon signed-rank test, a non-parametric statistical test used to assess whether there were statistically significant differences between the paired samples of pre- and post-survey responses. This test was mainly chosen for its suitability for analysing data sets that do not necessarily follow a normal distribution. Before applying the Wilcoxon signed-rank test, a crucial step was undertaken to assess the normality of the data distribution. This preliminary examination of data normality was essential, as it informed the appropriateness of the statistical test employed, ensuring the validity and reliability of the findings derived from the analysis.

Qualitatively, the data collected from students' reflection journals and semi-structured interviews were thematically analysed in a search for themes that emerged as important to describing the phenomenon (Braun & Clarke, 2013). The students' chat logs collected from their interaction during the task completion through Instagram chats were analysed using MIA (Norris, 2014, 2016). This involved a detailed examination of the recorded interactions to identify and quantify the occurrences of higher- and lower-level actions within each interaction episode. Higher-level actions included complex problem-solving or critical-thinking processes, while lower-level actions could encompass essential information exchanges or simple acknowledgments. By categorising and quantifying these actions, I aimed to uncover patterns, trends and insights into how students navigated task-based interactions, providing a richer understanding of the learning dynamics at play. This dual-faceted analytical approach allowed for a comprehensive exploration of the data, shedding light on the quantitative trends and

qualitative nuances of student experiences and behaviours within the study's scope. This methodology enhanced the depth and breadth of the findings and contributed to a better understanding of the phenomena under investigation, thereby enriching the overall research outcomes.

1.5 Theoretical framework for this study

Understanding the multi-faceted experiences of students and examining their use of the English language during task completion were essential components of this research. Such an investigation is pivotal to assessing the efficacy of instructional strategies and gaining insight into language acquisition's cognitive and social dynamics. To anchor this investigation in a solid theoretical foundation, exploring the existing theories illuminating the principle underlying LX learning and discourse analysis is imperative. These theories provide valuable lenses through which the intricate language-learning process can be understood and analysed. Current theories describing the language-learning process are based on research across various fields, including psychology, linguistics and sociolinguistics. The theoretical framework underpinning this research is sociocognitive and uses MIA.

A sociocognitive approach suggests that the main process in which learning takes place is meaningful interaction. In recent years, the social aspects of language learning have received significant attention (Toth & Moranski, 2018). This shift was sparked by Firth and Wagner's (1997) criticism of language learning, which underscored the importance of social and contextual factors in language use and their contribution to the language-learning process. This critique was a driving force for the 'social turn' movement in language-learning research, prompting a revitalised focus on the social and cultural context of language learning (Larsen-Freeman, 2018). Consequently, the sociocognitive approach emerged as an alternative to the cognitive approach that had previously dominated the language-learning paradigm. This approach underscores the importance of considering social factors when exploring language acquisition and learning, as opposed to the more traditional individual-focused cognitivist perspective (Atkinson, 2002).

The sociocognitive perspective asserts that language cognition is interwoven with and inseparable from lived experiences, cultural understanding, emotions and social identity

(Atkinson, 2002). A core belief of the sociocognitive approach to learning and teaching is the integrative function of the mind, body and environment in language learning (Atkinson, 2010, 2011b, 2014). In other words, these three elements are essential and interconnected components of language learning. Within this framework, cognition extends beyond the individual and is dispersed worldwide. This understanding of cognition contrasts sharply with the cognitivist perspective, which posits that cognition exists solely within the human mind, detached from the world during learning. The sociocognitive view of learning sees the latter as a dynamic process wherein humans adapt to their surroundings by using the available tools and affordances. As a result, adapting to or aligning with the world constitutes a primary mechanism for learning a language. Given these perspectives, Atkinson (2002, 2010) outlined three principles that underpin the sociocognitive approach to language learning: the inseparability principle, the learning-is-adaptive principle and the alignment principle (see Chapter 2 for more detail).

Given that, in language learning, students constantly interact using verbal and nonverbal cues, nonverbal cues are considered critical to communication and cannot be separated from verbal cues. MIA is a multifaceted approach used in research disciplines to decipher the manifold modes through which meaning is communicated and interpreted in interactions. It is rooted in social semiotics (Jewitt, 2014; Kress, 2010; Kress & Van Leeuwen, 2001). This comprehensive analytical framework acknowledges that conveying and interpreting meaning extends beyond mere linguistic verbal exchanges. It necessitates the exploration of various social semiotic modes—verbal, nonverbal, visual, gestural, spatial and others—that function in unison to form a cohesive, communicative act (Jewitt, 2014; Kress, 2010; Kress & Van Leeuwen, 2001). The principle underlying MIA is the recognition that communication is not an exclusive function of spoken or written language. Instead, it also encompasses an array of nonverbal cues, such as facial expressions, body language and gestures.

Moreover, the various modes enrich the conveyed meaning when deployed simultaneously, establishing a synergy. For example, a FTF conversation is not solely reliant on verbal discourse; it integrates numerous cues and signs that enhance the message's depth and clarity. In the digital environment, the complexity of multimodal interaction proliferates. Textual communication is complemented and supplemented by an assortment of semiotic resources, such as audio, graphics and emojis. Each mode carries its inherent meaning and adds a unique

layer to the overall understanding of the interaction. Therefore, analysing this multimodal interaction requires understanding how various modes converge to co-construct meaning. Thus, MIA provides a comprehensive methodological lens that enables researchers to attain a more nuanced understanding of the communication process. By scrutinising the multimodal intricacies of interactions, researchers can generate insight into the subtleties of communication that could otherwise remain overlooked. Particularly in fields like applied linguistics and CALL, this approach provides an important tool to analyse the complexities of human interaction.

1.6 The organisation of the thesis

This thesis is organised into eight chapters, each serving a distinct purpose in the overall exposition of the research. Chapter 1 discusses the background of the study and provides information related to LX learning in the Indonesian context. Here I thoroughly delineate the focus of my research, which centres on implementing multimodal CMC tasks. These tasks are designed spontaneously, as in real-life task interaction. This innovative approach recognises the evolving landscape of language learning, where digital platforms offer space for engagement and skill development. It also includes a detailed exploration of the relevant practical considerations that underpin the study. This chapter also articulates the aims and research questions that guide the investigation and outlines the core objectives that the study seeks to achieve. Following the presentation of aims and research questions, the chapter discusses the rationale behind the study, explains the reasons for its undertaking and discusses its anticipated contribution to the field of LX learning. It ends with an overview of the research methodology and the theoretical frameworks that guide the study. The chapter includes a brief introduction to the methodological approach adopted for data collection and analysis, as well as the theoretical perspectives that inform the interpretation of the findings.

Chapter 2 presents a comprehensive review of the literature and research that informs the research questions posed. This foundational chapter explores five principal areas vital to understanding the context of the study. Firstly, it explores the sociocognitive approach in LX learning, highlighting the interplay between social dynamics and cognitive processes in acquiring a new language. Secondly, it examines language learning facilitated by CMC, emphasising how digital platforms and online interactions serve as practical linguistic

exchange and development tools. The role of multimodality in language learning constitutes the third area of focus. This section explains how various semiotics resources, such as text, images, emojis and gestures contribute to more engaging language-learning experiences. It highlights the importance of recognising and using multiple modes of communication in teaching and learning languages while acknowledging the complexity and richness of human communication. The fourth area of exploration is alignment in language learning, which discusses how students and instructors synthesise their communicative behaviours to facilitate understanding and learning. In the last section, the application of MIA is discussed. This methodological approach allows for an in-depth examination of interactions in language learning, emphasising the significance of analysing verbal and nonverbal cues to gain comprehensive insights into the language-learning process.

Chapter 3 describes this study's methodological framework, articulating the research paradigm, design and specific procedures adopted in the inquiry. In this chapter, I justify the chosen case-study design, elucidating its alignment with the study objectives and effectiveness in addressing the research questions. This section aims to underscore the method's relevance, demonstrating how it is aptly suited to exploring the intricacies of language learning through CMC tasks. Furthermore, this chapter provides an in-depth discussion of this study's essential research tools and strategies. It begins with an overview of the participants' selection process, detailing the criteria and considerations that guided their choices to ensure that they represent the study's target demographic. The chapter then describes the various data sources used in the research, such as surveys, interviews and digital CMC task discourse, and how each helps address the research questions. Much of the chapter is dedicated to aligning the data-analysis framework, elaborating on the qualitative and quantitative methods used to shift through and interpret the collected data. It also includes a discussion of the analytical techniques and software tools employed and the rationale behind their selection.

Chapters 4 through 6 provide the findings of this research. Chapter 4 presents the quantitative results of the study. It analyses the data collected from pre- and post-study surveys, providing a statistical overview that highlights significant trends and shifts in students' perceptions and experiences during task interaction. Chapter 5 unveils the critical findings from thematic qualitative research data analysis, including the results based on students' reflection journals and semi-structured interviews. In Chapter 5, the focus shifts to comprehensively presenting

the qualitative findings from an in-depth thematic analysis of the research data. This chapter offers rich insights from students' reflection journals and semi-structured interviews. Chapter 5 vividly portrays the students' journeys, challenges, achievements and reflections throughout their engagement with CMC tasks by unpacking the themes that emerge from these personal and interactive narratives. This qualitative exploration adds depth and context to the quantitative findings, providing a more holistic view of the students' experiences and the complex dynamic of language learning through social media. Chapter 6 delves into the MIA of students' language use during CMC tasks through Instagram. It examines the interactive alignments and the expression of enjoyment during the task. Chapter 6 focuses on the students' actual language use and communicative behaviour when completing CMC tasks on Instagram. This analysis examines how students achieve interactive alignment and engagement during the tasks. By analysing various communicative modes, including text, images, emojis and video, this chapter sheds light on the intricate ways students navigate the multimodal affordances of Instagram to facilitate language learning and social interaction. The findings from this chapter contribute to a deeper understanding of the role of multimodality in online language-learning environments and the potential of social networks like Instagram to foster effective and enjoyable language-learning experiences.

Chapter 7 presents an in-depth discussion and interpretation of the study findings and links them back to the research questions. This comprehensive analysis illustrates how the findings address these questions, situates the research within the broader academic discourse and highlights its contribution to language learning through CMC. This includes a discussion on how the research enhances our understanding of the use of social-media platforms like Instagram in facilitating language learning and the potential they hold for engaging students in meaningful communicative tasks outside the classroom setting.

Chapter 8 explores the implications of the research for both theory and practice. The analysis extends the pedagogical implications of the findings, offering insights into how educators can effectively integrate CMC tasks into language curricula to enrich the learning experiences and outcomes. Furthermore, this chapter acknowledges the limitations inherent in the study. It critically reflects upon the constraints and challenges encountered during the research process. This appraisal adds credibility to the study and opens up avenues for further research. This might include investigating different social-media platforms or examining different

demographic groups. These suggestions aim to inspire ongoing inquiry and contribute to the evolution of language-learning methodologies in the digital age.

1.7 Key terms and definitions

- Computer-mediated communication (CMC): A communication form that occurs via electronic devices with internet network connections (Carr, 2021).

- Instagram: A social-media platform that allows users to share photos and videos with various interactive features, such as live videos, text, audio and video chat (Herman et al., 2022).

- Multimodal CMC: Online communication that involves multiple modes of communication, including images, videos, audio and other visual elements.

- Multimodal communication: A communication that involves a wide range of semiotic resources to convey messages, such as verbal, visual, gestural and spatial.

- Synchronous CMC: A real-time online communication where participants communicate instantly with one another.

- Nonverbal cues: A form of nonverbal communication that does not involve words but is used to convey messages like gestures, facial expressions, emojis, GIFs and images.

- Interactive alignment: A communication concept where conversational partners tend to align their cognitive and communicative behaviour, including word choice, syntax and nonverbal cues (Pickering & Garrod, 2004).

Chapter 2
Literature Review

This chapter reviews the relevant literature that informs the current study. It aims to lay a solid foundation for the study by providing essential background information that contextualises the study within its academic setting and highlights the gap in the existing scholarship. This review helps situate this study within the broader academic discourse, contributing necessary insights and fostering a deeper understanding of the research fields. This literature review is systematically organised into four sections, each dedicated to a key focus area underpinning the theoretical and methodological framework. The first section explores what it means to have a sociocognitive perspective or lens on learning. Sociocognitivism recognises the intricate interplay between social interaction and cognitive processes in language learning. Subsequently, I turn my attention to the role of CMC in language learning. This section evaluates the role of digital platforms and online interactions as a medium for LX use and development. It highlights the unique opportunities they can present for supporting language learning in diverse contexts. The third section is devoted to the role of multimodality in language learning. It explores the integration of various semiotic resources, such as text, spoken words, emojis, images, gestures and facial expressions, in enriching LX learning experiences. Finally, I discuss the concept of multimodal interactive alignment in task-based interaction and its implications for language learning. This discussion emphasises the complexity and richness of communicative practices in a contemporary language-learning environment and the importance of considering multiple modes of communication.

2.1 Sociocognitivism

In the last few decades, there has been a marked shift in language-learning research towards a greater appreciation of the social dimensions of language acquisition (Toth & Moranski, 2018). This transition was influenced by Firth and Wagner's (1997) seminal critique on language learning, which underlined the importance of social and contextual factors in language use and their contribution to the language-learning process. This critique was a driving force for the 'social turn' movement in language-learning research, which prompted a revitalised focus on the social and cultural context of language learning (Larsen-Freeman, 2018). Consequently, the sociocognitive approach to learning and teaching emerged as an alternative to the

cognitivism that had previously dominated the language-learning paradigm. Unlike cognitivism, which tends to focus on individuals' mental processes in isolation, the sociocognitive approach emphasises the integral role of social interaction and cultural context in language learning (Atkinson, 2002). This approach posits that language acquisition is not merely an internal cognitive process but is deeply embedded in and influenced by social interactions and the surrounding cultural context. Therefore, a comprehensive understanding of language learning must acknowledge the social factors interwoven with the cognitive process (Atkinson, 2014).

The sociocognitive perspective on language learning presents a holistic view of it, suggesting that language cognition is interwoven with a person's experiences, cultural understandings, emotions and social identity (Atkinson, 2002). This approach challenges the traditional boundaries of cognition and advocates a more integrated view that encompasses the mind, body and environment as fundamental components of language learning (Atkinson, 2010, 2011b, 2014). According to this perspective, cognition is not happening inside the individual's mind; instead, it is influenced and supported by the wider world around it. This includes the tools the individuals use, their interaction with others and the cultural context in which they engage (Atkinson et al., 2018). This stands in contrast to the cognitive view, which conceives cognition as an internal process isolated within the confines of the mind and largely independent of the external world. In contrast, the sociocognitive approach views learning as a dynamic process of adaptation, where individuals learn by interacting with and adjusting to their environment, leveraging the tools' various tools and affordances (Atkinson, 2010).

Atkinson (2002, 2010) crystalises sociocognitivism in three foundational principles:

1) The *inseparability* principle, which asserts that cognitive processes cannot be divorced from the social and physical context in which they occur;

2) The *learning-is-adaptive* principle, which views learning as a process of adapting to one's environment; and

3) The *alignment* principle, which suggests that learning involves aligning one's actions and understandings with those of the surrounding world.

These principles collectively frame a comprehensive approach to language learning that recognises the influence of social, cultural and environmental factors on cognitive processes. Furthermore, it can also offer a comprehensive understanding of language acquisition and use. The following section discusses these principles in depth.

2.1.1 Sociocognitive principles for language learning

The first sociocognitive principle is inseparability, which means that cognition, the physical body and the environment are fundamental components that cannot be dissociated from one another in the context of LX use and learning (Atkinson, 2011b). Inseparability is rooted in the view that language and cognition co-evolved from the very beginning of the species *Homo sapiens* as a mechanism to ensure survival (Atkinson, 2011b). People learn mentally and in environments comprising bodies, cognitive tools, social practices and environmental features (Macedonia, 2014). The body's positioning, actions and orientation in the environment are crucial to how participants understand what is happening and build action together (Lan et al., 2015). Learning is more about discovering the world than extracting from it, and, by being environmentally embedded, knowledge/cognition is made public and thereby learnable. Swain (2000) posits the general principle that learning occurs both in the head of the learner and in the world, where meanings of new words, visual symbols, actions or objects are exposed so that the learner can see the connections between the signs and their interpretation, and they can become their experiences of learning. In this way, words, actions and social interaction are integrally intertwined.

The example of the inseparable principle of cognition, body and environment in language learning can be illustrated through nonverbal behaviours, such as gestures, head movements and gaze, to support language teaching and learning. Matsumoto and Dobs (2017) demonstrated this in their study of teacher and student interaction in grammar classrooms ranging from beginner to advanced level in an intensive English program at a university. Their findings highlighted teachers' and students' frequent use of abstract, deictic and metaphoric gestures. Teachers used gestures for instruction and assessment, while students incorporated gestural movements to demonstrate their comprehension of the concepts and establish interactional alignment with their teachers. Similarly, Wang and Loewen (2016) showed the significance of nonverbal behaviours in providing corrective feedback, with teachers

employing a variety of gestures and head movements, such as pointing, nodding and head-shaking. In online learning, Satar (2013) underlined the importance of gaze or eye contact in establishing a social presence and enhancing students' engagement in learning activities.

The next sociocognitive principle, learning-is-adaptive, holds that the primary purpose of learning is to improve adaptive functionality for surviving in uncertain environments (Atkinson, 2010). According to Atkinson (2010), the adaptive learning principle has four associated implications for LX learning. The first is that learning is relational. This principle claims that learning is an adaptive behaviour that involves understanding how to relate and interact with the environment. It also suggests that learning an LX involves adopting social practices used by the language's native speakers to accomplish social actions. Second, learning is experiential, participatory and guided. Learning happens through experiencing and participating. In the case of LX, this involves communicating with the target language's speakers in social situations. Third, learning is public. This principle means that learning is facilitated by directing the students' attention to specific student–word relationships that need to be learned to improve alignment with the world. Lastly, learning is a process of aligning. Learning requires continuously adjusting to and aligning oneself with the environment, often with the assistance of guides.

The sociocognitive approach to learning and teaching considers learning LX to serve the same fundamental purpose as first languages, especially helping adapt to survival-oriented social actions within the environment where the target language dominates communication (Atkinson, 2012). This perspective suggests that humans have an innate capability to learn LXs, at least to the extent necessary to function adaptively within this target language environment (Atkinson, 2014). This inherent capacity is a key factor in explaining why a substantial portion of the global population is multilingual to the degree required by their respective contexts. Further expanding on this, Atkinson (2011b) acknowledges the critical function of the environment outside the classroom for supporting language learning. Informal settings, such as online platforms, music, film or immersive novels, can provide rich and supportive environments for LX acquisition. Therefore, the supporters of sociocognitive approach believe that interaction involves not only in-person FTF exchanges but also a wide array of socially mediated activities. Although FTF interaction can be ideal for certain types of learning due to

its unique characteristics, any form of social action that fosters interactive engagements within an LX environment can potentially support language acquisition.

The final principle is alignment. Atkinson (2011b, 2014) defines alignment as how humans adapt dynamically to ever-changing, mind–body–world environments. In other words, alignment is the process of adjusting to and interacting with the fluctuating conditions of our social and physical environment, including all aspects of the human body. The environment constantly changes, and humans must adapt to survive and thrive (Atkinson et al., 2007). These notions claim that individuals align with each other, their cognitive affordances and their eco-social world to carry out joint actions. Alignment is actualised through several processes, including sharing affective states, body language, gaze, information sharing and attending to artifacts and cognitive affordances in their shared space (Atkinson, 2011b).

From the sociocognitive perspective, alignment in language learning occurs as students dynamically adapt their behaviour, either consciously or unconsciously, during social interactions and in specific communication contexts. It happens in a way similar to the process of conversation, when speakers adjust their speech to either match or contrast with their interlocutors. In this adjustment process, students modify their verbal and non-verbal cues to align with the conversational flow (Atkinson, 2014). Nonverbal alignment, for example, includes shared gestures and the mutual exchange of smiles, which can enhance communication and can be seen when one person smiles, and this prompts a smile in return. This reciprocal smiling not only fosters a positive atmosphere but also has the potential to improve the mood of the individual involved due to biological feedback (Söderkvist et al., 2018). Such synchronised and well-coordinated interactions can foster positive feelings amongst participants and facilitate an effective learning environment.

2.1.2 Sociocognitive approach to LX learning

In the context of LX learning, the role of social interaction is crucial as it stimulates the use of language in real communication contexts. This is particularly central given the common challenges faced by LX students, such as limited exposure to the target language and the need for practical communication skills (Rahimi & Fathi, 2022). Unlike the cognitive approach that focuses more on cognitive processes and is less connected to social contexts, the sociocognitive

approach situates LX learning within specific social contexts. Consequently, this approach enables researchers and scholars to look more closely into how learners develop communicative competence and their sense of engagement and motivation that are shaped by sociocultural, cognitive and situated learning, rather than isolation. For example, the use of multimodal elements in LX learning effectively develops students' communicative skills and creates an enjoyable learning environment (Salamanti et al., 2023). Providing students with activities that simulate real-life interactions can further motivate them to actively engage in the tasks and use the language (Aubrey et al., 2020). This approach also helps students build a solid linguistic foundation and develop the confidence to use the language in various contexts (Cheung et al., 2021). Additionally, using nonverbal modes such as pictures (Belda-Medina, 2021) and gestures (Lee et al., 2019) aids students in improving both linguistic and communicative competence through embodied learning and adaptive instruction.

Embodiment is a key sociocognitive principle that supports low-proficiency learners. Gestures, physical actions, and visual aids help beginner LX students with limited vocabulary understand and convey the messages from interlocutors during conversation (Sime, 2008). For example, using hand movements to represent images or make abstract verbs concrete helps students visualise and recall the meaning of words (Rodríguez-Cuadrado et al., 2022). This visual representation aids memory retention and comprehension. Another vital principle is alignment. Beginner LX students often align their language use with teacher and peers todevelop basic competence and build confidence (Pickering & Garrod, 2021). Through mimicking and repetition, students can internalise language patterns and communicative expressions. This process allows them to fine-tune their language use and adjust it based on the interlocutors and context, turning it into comprehensible input which is vital for beginner students (Tekin et al., 2022).

2.2 Language learning with CMC

The development of the LX learning approach has significantly shaped the evolution of technology's application in language education via CALL. Initially, in an era dominated by structural approaches, the primary use of computers in language learning was confined to drill and practice programs alongside grammar and vocabulary tutorials and language-testing programs (Valledor et al., 2023). This phase was heavily influenced by behaviourist principles,

which considered learning to be the development of habit formation through repetitive practice and reinforcement (Mitchell et al., 2019). As the field of language education began to shift from behaviourist to cognitive approaches, however, there was a corresponding transformation in CALL methodologies. In this cognitive phase of CALL, the focus extended beyond mere repetition and memorisation to include the construction of new knowledge. Students began to engage with simulated environments that allowed for exploration and discovery, fostering deeper cognitive functions like problem-solving and critical analysis (Mitchell et al., 2019). This marked a significant departure from the more mechanical practices of the past, embracing a more interactive and learner-centred approach (Littlemore, 2023). The transition towards integrating social dimensions into cognitive methods marked a new phase in the development of CALL. Language-learning frameworks like sociocultural theory, sociocognitivism theory and system dynamic function models have become prominent. These frameworks emphasise the importance of social interaction and collaboration in learning and believe that knowledge is constructed individually and within a community of learners (Atkinson, 2011a). This paradigm shift has redirected the focus from student–computer interaction to fostering connections between students through computers as conduits for meaningful human interaction.

Understanding the nature of FTF communication is essential before exploring CMC. According to Clark (1991), FTF communication, with its rich history as the bedrock of human interaction, is a primary setting for language use, facilitating a broad spectrum of daily life. Bavelas and Gerwing (2007) further argue this by identifying two salient features of FTF communication: the ability for interlocutors to respond reciprocally in real time and the availability of visible and audible resources for communication. These resources include a range of linguistic expressions and paralinguistic acts, such as body language, facial expressions and gaze directions. These elements collectively contribute to the dynamic and rich nature of FTF interactions, setting them apart from digital forms of communication. Transitioning from FTF to computer-mediated communication (CMC), Bodomo (2009) comprehensively defines CMC as the process of encoding and decoding linguistics and other symbolic systems between a sender and receiver via one or more computers. This process encompasses information processing in various formats, leveraging the multifaceted capabilities of digital technology. Bodomo (2009) suggests that CMC processes linguistic and paralinguistic codes akin to FTF communication and supports multiple formats, such as

images, text, audio and video. Moreover, the global reach of internet networks ensures that CMC can connect individuals across vast distances, transcending geographical limitations (Stockwell, 2010).

CMC is categorised into two distinct types based on the timing of message delivery: synchronous CMC (SCMC) and asynchronous CMC (ACMC; Shiroyama, 2021). SCMC requires participants to be online simultaneously, allowing for real-time interaction that somewhat mirrors the immediacy of FTF communication. On the other hand, ACMC does not require a simultaneous online presence, resulting in potential delays in response and a different dynamic in the exchange of messages. This classification underscores the flexibility of CMC in accommodating diverse communication needs and preferences (Lafford & Lafford, 2005). SCMC is often considered comparable to FTF communication when integrated into technology-mediated instruction for LX learning (Dao et al., 2023). This semblance is primarily due to the shared interactional presence in SCMC and FTF settings, including critical aspects like noticing, negotiating meaning and exchanging feedback (Cerezo et al., 2013). These elements are the foundation of effective language learning, facilitating a dynamic and interactive environment fostering language acquisition. Still, despite these similarities, certain distinctions emerge, particularly concerning the frequency and nature of interactions. Moradi and Farvardin (2019) point out a potential limitation of SCMC: the need for interlocutors to scroll periodically through previous messages to maintain coherence in the conversation. This requirement can inadvertently slow the pace of the interaction and reduce the overall frequency of discourse production, posing a unique challenge to seamless communication.

By contrast, ACMC offers a different dynamic; AbuSeileek and Qatawneh (2013) argue that ACMC can enhance students' ability to produce a more diverse and functional discourse. This advantage stems from the inherent nature of ACMC, which allows students more time to reflect, think critically and consult learning resources before responding. This temporal flexibility can enrich the learning experience, enabling students to construct more thoughtful and complex linguistic expressions. When considering the mode of communication, text-based CMC presents another layer of complexity. Kim (2012) states that, while text-based interaction in CMC can mirror the brevity and directness often found in oral communication, it lacks the rich paralinguistics cues inherent to FTF interactions, such as tone, gestures and facial expressions. The absence of these nonverbal cues necessitates a different approach to ensuring

clarity and expressiveness in communication, where textual cues and conventions are heavily relied on to convey meaning and emotion.

While video-based CMC presents promising avenues for language practice, it is not without its challenges, mainly because of technical limitations like limited internet connectivity and poor video quality, which can disturb the communication flow and potentially detract from the learning experience. Despite these hurdles, many suggest that video-based CMC has distinct advantages over traditional FTF interaction, especially regarding accessibility and flexibility. Terhune (2015) highlights that video-based CMC allows students to engage in English-language practice anytime and from virtually anywhere. This level of accessibility significantly broadens the opportunities for language practice beyond the constraints of physical classroom settings. CMC's effectiveness in language learning, however, is also influenced by the thoughtful integration and application of these resources within the learning process. Blake (2008) emphasises the teacher's critical role, asserting that the successful implementation of CMC for language learning is determined primarily by selecting the appropriate tools and carefully planning instruction activities. This entails not only choosing the right technological platforms to facilitate communication but also designing tasks and interactions that are pedagogically sound and aligned with learning objectives.

2.2.1 Synchronous computer-mediated communication (SCMC)

The SCMC approach facilitates real-time interaction and communication among students and instructors, closely mimicking the dynamic of in-person FTF conversations (Ajabshir, 2019). The immediacy and interactivity inherent in SCMC platforms, such as video conferencing, instant messaging and online chat rooms, offer students a unique opportunity to practise language skills in an engaging environment (Barley, 2021). This mode supports the development of various language skills, including speaking and listening, and offers immediate feedback, which is crucial for language acquisition (Belda-Medina, 2021; Huang, 2018; Ribeiro & Eslami, 2022). SCMC fosters more interactive and participatory learning experiences with instant exchange and collaboration, enhancing students' potential to immerse themselves in the target language context and culture (Lewis et al., 2023). Integrating the SCMC and CALL initiatives represents a significant stride towards leveraging technology to facilitate more accessible, flexible and language-learning opportunities (Junn, 2021). Instagram

is a notable example of a SCMC platform that supports language learning and offers diverse interactive ways for students to engage with the language in real-world contexts.

2.2.2 Instagram as CMC

Instagram, a widely favoured social-media platform, is widely used among digital natives like teenagers, including first-year university students, who grow with the advancement of the internet, at least according to Perifanou et al. (2021). This platform allows teachers and students to create, send and share content to help their teaching and learning. In the language-learning context, Instagram can facilitate dynamic learning environments that create a more collaborative environment where students can actively participate, share insights and receive real-time feedback outside the classroom (Ramazanova et al., 2022). Instagram can also help teachers or students express their ideas and concepts creatively through various modes of communication, such as images, videos or stories, in more engaging and accessible ways (Gomes Junior, 2020).

The use of Instagram for language learning represents a dynamic fusion of technology and education and the platform's visual and interactive capabilities to foster communicative skills (Aghayi & Christison, 2021). Many researchers have espoused the benefits for language learners of using Instagram, including its ability to provide authentic language use in context. Learners are exposed to real-life language use through posts, stories and comments, allowing them to see how language functions in various social and cultural scenarios (Çakmak, 2020). This exposure to authentic language use can aid the development of learners' comprehension and fluency as they continually engage with target language content that reflects current usage and makes the learning experience more relevant (Teng et al., 2022).

Moreover, Instagram emphasises visual content, supporting multimodal learning, wherein language learning is complemented by visual aids, such as images, infographics and videos (Lee, 2022). Instagram also allows its users to use various channels for communication, such as text, audio and video chats that can embrace nonverbal cues to exist in the interaction, including visual cues, such as images, emojis, GIFs, gestures and facial expressions (Leaver et al., 2020). These channels facilitate the incorporation of nonverbal cues that reflect FTF interaction. This multimodal approach caters to learners' different learning preferences and

helps them retain new vocabulary and grammatical structures by associating them with visual cues (Wagner, 2021).

The exploration of Instagram as a medium for language learning has been the focus of various academic studies in recent years (e.g., Aloraini, 2018; Gomes Junior, 2020; Morshidi et al., 2019; Prasetyawati & Ardi, 2020; Subekti & Damaryanan, 2023; Teng et al., 2022). These studies describe the unique technical and social attributes of Instagram within the language-learning domain. Instagram's interface and widespread social network make it an appealing tool for integration into language learning, whether inside or outside the classroom. Most research in this area has concentrated on evaluating students' experiences with Instagram, particularly how they perceive the platform's utility in supporting their language use and learning. For example, in their study, Morshidi et al. (2019) explored the innovation of using Instagram to enhance reading engagement among fourth-grade students in an urban school in Malaysia. The research involved a carefully structured reading program in which the students engaged in traditional reading activities within the classroom for two weeks, followed by a three-week period during which they created and shared video posts related to their reading task on Instagram. The findings from this study revealed that young learners appreciated the opportunity to integrate Instagram into their reading assignments. The platform's interactive and visual nature made the learning experience more enjoyable and engaging for students. The students' enthusiasm for recording and sharing their reading activities on Instagram was particularly noteworthy. This enthusiasm was further fuelled by the social validation they received in the form of likes and comments on their posts, which served as a source of motivation and enhanced their willingness to participate in further reading tasks and share more content.

In another study, Aloraini (2018) examined the effect of Instagram posts on enhancing vocabulary and grammar, especially for various aspects of language learning, such as the volume of students' linguistic output and the accuracy and degree of feedback received from others. The findings revealed that vocabulary-focused Instagram posts garnered more comments, suggesting higher engagement or interest from the Instagram community. The number of posts, however, did not significantly affect the overall accuracy or amount of feedback received. Another recent study by Ibrahim and Basim (2024) explores the effects of Instagram feed-based tasks on English as a Foreign Language (EFL) students' learning

outcomes, specifically focusing on self-esteem, academic buoyancy, academic engagement and language achievement. Their study involved 93 intermediate EFL students in experimental and control groups. The experimental group incorporated Instagram tasks alongside regular online webinars. The findings suggest that Instagram-based assignments can significantly enhance self-esteem, academic buoyancy, academic engagement and language achievement. This study underscored the vital role of Instagram in providing accessible course materials and promoting active engagement outside regular classroom settings.

As seen from the literature selection above, Instagram emerges as a potent educational tool that can facilitate language learning. Its incorporation into language education aligns with contemporary students' digital habits and opens up new pedagogical possibilities to enhance language proficiency, motivation and engagement.

2.2.3 The synergy between TBLT and CMC

Since its emergence in the late 1980s, TBLT has garnered significant interest from researchers and educators in language teaching and learning. TBLT is distinguished by its emphasis on communicative activities that align closely with everyday life activities, thereby mirroring authentic interactions. This approach is grounded in the belief that language learning is most effective when it simulates genuine communication scenarios (Long, 2015). According to Ellis and Shintani (2014), tasks within the TBLT framework are defined by four criteria. Firstly, tasks emphasise the conveyance of meaning, even when there are specific language-learning objectives involved; secondly, effective tasks introduce some form of gap, such as information, opinion or reasoning gaps that students can only bridge through communication; thirdly, tasks are designed to encourage students to draw upon their linguistic and non-linguistic resources to achieve the task objectives; and, fourthly, each task is structured around a clear communicative goal that guides students towards specific outcomes. This goal-oriented approach adds direction and purpose to the activities and ensures that tasks lead to meaningful language use and development.

In the current environment, CMC facilitated by both computers and smartphones plays an increasingly vital role in contemporary society (Dempsey, 2022). Millennials and Generation Z have used CMC to assist with tasks in their daily lives (Carr, 2021). CMC also enriches task

interactions with semiotic resources, which refers to the range of nonverbal cues students can use to communicate (Belda-Medina, 2021; Huang et al., 2021). The evolution of technological tools that support CMC can expand the semiotic possibilities available to students. For example, students can add more visual cues to their text-chat interaction or employ video chat to interact synchronously. The range of tools available enhances how students interact, collaborate and achieve their learning outcomes in task-based scenarios (Al Kandari & Al Qattan, 2020).

As technology becomes intertwined with students' daily lives, it aligns with the principles of TBLT, which emphasises using authentic tasks as a medium for language learning (see Gonzalez-Lloret, 2017). Educators have been at the forefront of incorporating technological tools into task-based learning, constantly experimenting with and refining this blend to enhance both its theoretical foundations and practical application in teaching LX language (González-Lloret & Ortega, 2014b). The incorporation of technology with TBLT becomes a strategic enhancement, as, according to many studies, technology can enrich the learning environment by providing diverse, interactive and engaging resources (Smith & González-Lloret, 2021). Consequently, this integration can improve the language-learning process, making it more engaging and effective. Thus, it can positively affect students' learning outcomes (Chen & Brown, 2012).

2.2.4 The effect of individual differences in CMC LX learning

In the context of LX learning facilitated by CMC, individual learner differences play a pivotal role in shaping learning experiences and outcomes. Individual difference variables represent a broad spectrum of students' traits and characteristics that are vital in shaping their educational experiences (Li et al., 2022). These variables include psychological, emotional and social dimensions that significantly affect students' engagement with the learning materials, interactions within educational settings and the overall achievement of learning outcomes. Among various types of individual differences, this section will discuss three key aspects relevant to this study: motivation, self-confidence, willingness to communicate and anxiety.

2.2.4.1 Motivation

Motivation is a critical driver of LX learning. It underlies engagement and can result in persistence when the learner is facing linguistic challenges. The interactivity and multimodal capabilities of CMC platforms can amplify motivation by offering a variety of stimulating and contextually relevant LX learning scenarios. According to Pawlak (2022), these digital environments can significantly enrich the LX learning experience by facilitating access to authentic materials, real-time communication with native speakers and personalised learning paths that cater to individual interests and needs. This affordance makes the learning process more enjoyable and engaging for students, allowing them to see the practical application of their language skills in a real-world context. Dörnyei (2009) formulated the second language (L2) motivation self-system concept as a comprehensive framework that deconstructs the multifaceted nature of LX learning motivation into three vital components: the ideal L2 self, the ought-to L2 self and the L2 learning experience.

This framework is relevant to language learning in that it talks about the ideal L2 self as a forward-looking construct that envisions a future where the learner has achieved a desired level of language proficiency and embodies the characteristics of an adept L2 user that serves as a personalised aspiration (Papi & Hiver, 2022). By contrast, the ought-to L2 self is more grounded in the present, encapsulating the qualities and behaviours that learners perceive as necessary to meet external expectations and societal norms, thereby sidestepping potential negative judgments and consequences (Dörnyei, 2005). The third component, the L2 learning experience, shifts the focus from future aspirations and current obligations to the tangible and immediate learning context. This triadic framework collectively underscores the complex interplay among future aspirations, present commitments and the current learning environment in shaping a student's motivation for language acquisition (Dörnyei, 2009) and is important to the current study because it could provide a holistic understanding of the motivation dynamics at play.

Another study on motivation and language learning by Papi and Khajavy (2021), investigated dynamic of language-learning motivation as connected with emotion and strategy within EFL education. Their study focused on 324 students in Iran, where they aimed to unravel the complex interplay among regulatory focus, future self-guides, emotional responses, strategic

orientations to language use and the ultimate effect on foreign-language achievement. Their comprehensive analysis revealed how different motivational and emotional factors interact in language learning. They found that a promotional regulatory focus—one oriented towards achieving gains and aspirations—bolsters the formation of ideal L2 selves. This suggests that, when students are motivated to pursue positive outcomes and personal growth, they are more likely to cultivate aspirational visions of their future language-using selves. Conversely, a prevention focus—one concerned with avoiding losses and fulfilling responsibilities—appeared to streamline the ought-to L2 selves. This indicates that, when students are driven by the need to meet external expectations and avoid adverse outcomes, they might have a more precise, possibly narrower, set of ought-to selves they strive to satisfy.

Another study, by Feng and Papi (2020), examined how different facets of the L2 motivation self-system relate to students' motivational intensity and long-term commitment to language learning. Their research uncovered that, when students possess a robust ideal L2, they envision themselves as proficient language users in the future based on their aspirations. It significantly boosts their immediate motivational intensity. This implies that having a clear personal vision of one's future language using oneself can energise and drive a student's day-to-day efforts in acquiring the language. Similarly, the ought-to L2 self, which reflects students' internal sense of duty or obligation towards language learning, also plays a crucial role in fuelling short-term motivational intensity. This suggests that, when students feel a personal responsibility to learn a language, perhaps due to personal goals or internal standards, it can propel their immediate engagement and effort in language-learning activities.

2.2.4.2 Self-confidence and willingness to communicate

In language learning, the interplay between self-confidence and the *willingness to communicate* (WTC) is a critical area of study, as these psychological factors influence learners' engagement and proficiency in a new language. *Self-confidence* is the belief in one's abilities to perform tasks successfully, directly affecting students' motivation to engage in language-learning activities (Clément et al., 1994). Students with high self-confidence are typically unburdened by the fear of failure, which can otherwise impede their progress towards achieving LX learning goals. Self-confidence is multifaceted, encompassing a strong sense of perceived communicative competence and minimal language anxiety (Peng & Woodrow, 2010).

Perceived communicative competence refers to students self-evaluating their communication capabilities using LX (Fatima et al., 2020). Consequently, a higher level of self-confidence in communicating using LX is often correlated with a greater willingness to participate in communicative activities, facilitating more effective language acquisition (Darasawang & Reinders, 2021).

WTC refers to individuals' inclination to communicate when given the opportunity (MacIntyre, 2020). Articulated initially by MacIntyre et al. (1998), WTC in LX is an individual's readiness to engage in conversation using a target language under specific circumstances and with particular individuals. WTC encompasses various psychological, social and contextual elements that collectively contribute to an individual's tendency to engage in communication. For example, the individuals' self-confidence, communication apprehension, perceived communication competence and past communication experiences can significantly affect their WTC, even in their first language. WTC is a crucial construct in LX acquisition research, as it encapsulates the readiness of students to apply their language skills in real-world contexts (Peng, 2022). WTC is influenced by myriad factors, including self-confidence. Other elements, such as personality traits, the perceived value of communication, previous communication experiences and the environment or context of the communication, also play significant roles (MacIntyre et al., 1998). This relationship highlights the importance of creating an environment that boosts students' self-confidence, as doing so can be instrumental in enhancing their willingness to communicate (Mulyono et al., 2021).

Research has demonstrated a positive correlation between self-confidence and WTC, indicating that students become more self-assured in their language abilities and their eagerness to communicate as their ability in their target language increases (e.g., Aoyama & Takahashi, 2020; Fatima et al., 2020; Huynh & Nguyen, 2021; Saka & Merc, 2021). This relationship is particularly evident in classroom settings, where interaction dynamics can foster or hinder students' confidence and willingness to speak. For example, a supportive and non-judgemental classroom atmosphere can encourage risk-taking and experimentation with the language, thereby enhancing both self-confidence and WTC. Furthermore, advancements in digital communication platforms have introduced a new dimension to the relationship between self-confidence and WTC. According to Jauregi et al. (2012), CMC offers alternative venues for language practice and interaction that may be less intimidating for some learners, potentially

boosting their confidence and willingness to communicate because these digital environments can provide a sense of detachment from the immediate physical presence of interlocutors, which some students find liberating (Culduz, 2024).

Research exploring the relationship between self-confidence and WTC within a learning context has revealed insightful findings. A notable study on digital learning by Lee and Lee (2019) examined this relationship. They discovered that younger students with higher LX self-confidence participated more frequently in virtual exchanges and demonstrated more WTC in online environments. In other words, there was a positive correlation between self-confidence and LX WTC. This study also highlighted the critical influence of self-confidence on learners' readiness to use their LX language across various contexts. Another study by Amalia et al. (2019) found similarly that self-confidence is a critical factor influencing students' WTC in language-learning settings. Their study revealed that students exhibited markedly higher self-confidence during group-work activities in language learning compared to scenarios that required them to demonstrate their LX speaking skills in front of the entire class. Students also felt more at ease engaging in discussion within smaller groups, ideally consisting of three to four individuals.

2.2.4.3 Anxiety

Language anxiety has emerged as a significant area of focus within the field of LX learning research, primarily due to its pervasive nature and the profound effect it can exert on learners (Collins & Baker, 2023). *Anxiety* is a psychological state triggered by the activation of the autonomic nervous system, characterised by feelings of nervousness, tension, worry and fear associated with a specific situation (Horwitz et al., 1986). Within language learning, this anxiety encompasses a complex amalgamation of self-perceptions, beliefs, feelings and behaviours that emerge uniquely from learning a language inside and outside the classroom settings. Characterised by feelings of tension and apprehension specifically associated with language-learning contexts, language anxiety represents a deeply felt, often unwelcome emotional state that many learners encounter (MacIntyre & Wang, 2022). Language anxiety in classroom settings can be divided into three interconnected components: communication apprehension, fear of negative evaluation and test anxiety. *Communicative apprehension* refers to the fear or anxiety an individual may experience regarding actual or anticipated

communication with others in another language. This type of anxiety can significantly hinder students' ability to engage in conversation or participate in class discussions. The *fear of negative evaluation* includes the dread of being judged by others, the distress caused by anticipated negative judgements and the expectation of receiving unfavourable feedback from others. This fear can lead to a reluctance to speak up or participate in activities that involve evaluation by teachers or peers. Lastly, *test anxiety* revolves around apprehension about the consequences of failing or performing inadequately in evaluative situations, such as exams or presentations.

Understanding LX anxiety is important in any study looking at online language learning. Studies have shown that online learning can reduce anxiety levels in the LX learning context, offering students a more comfortable and less intimidating environment (Russell, 2020). The digital platform provides a sense of anonymity and privacy, allowing learners to engage with the material at their own pace without the immediate pressure of real-time evaluation or peer comparison. This individualised approach can significantly reduce the everyday anxieties of speaking and participating in LX classrooms. Recent studies, including research by Jiang et al. (2023) on the Skype application, have demonstrated how online learning environments can reduce anxiety among LX students. Their findings suggest that online platforms provide a comfortable and flexible setting, enabling students to engage more freely with their peers and instructors. This enhanced level of interaction is credited with contributing to a decrease in students' language anxiety. Furthermore, the online learning formats offer the added benefit of allowing students to access materials and detailed explanations from instructors beyond the scheduled class times. This accessibility ensures that students can view and revisit instructional content at their convenience, allowing them to address and improve upon any gaps in their understanding and skills and, therefore, reduce their anxiety. The ability to refer to previously shared materials and reinforce learning points is a significant advantage of online learning.

Another study conducted by Véliz-Campos et al. (2023) revealed that students in-person FTF classrooms experienced higher levels of anxiety compared to their counterparts in online lessons. The learners in the study suggested that participating in speaking activities via online platforms is less daunting because it is easier for them to manage their anxiety when responding to the interlocutors during the lessons. The researcher proposed that the reduction in anxiety in online settings could be attributed to the less intimidating and less physically present nature of

communication, which contrasts with the in-person learning environment, where the direct proximity to peers and instructors intensifies the feeling of being scrutinised. In virtual classrooms, the possibility for students to turn off their cameras provides another layer of anonymity, reducing the pressure and making it easier for them to speak up without the fear of judgment that often accompanies FTF interactions.

2.3 Multimodality and learning

Communication is an inherently multimodal process that uses diverse modes beyond words (Norris, 2004). These modes, which include verbal, visual and other forms of language, work together to convey messages effectively (Kress, 2010). According to Goodwin (2010), *multimodality* refers to making meaning through multiple channels. Goodwin (2010) lays out three core principles of this meaning-making. Firstly, various semiotic resources are employed in meaning, each with unique capabilities and constraints. Secondly, the creation of meaning is inherently multimodal, involving integrating different modes. Thirdly, understanding comprehensive communication requires considering all the semiotic resources used in the interaction. Thus, multimodality places verbal and visual languages on equal footing within communication. These modes are interlinked and form a cohesive and indivisible whole. The role of multimodality in conversation lies precisely in exploring the different potential meanings provided by each semiotic resource (Eisenlauer & Karatza, 2021). In practice, individuals select and combine semiotic resources based on the suitability of the resources for expressing the intended meaning within a particular social situation (Hauck et al., 2021). This selection process is influenced by social context, which not only shapes the resources available for meaning-making but also guides how these resources are organised and applied.

2.3.1 Multimodality in online learning

Numerous scholars have acknowledged that using various communication modes can contribute to the success of online learning. For example, a study by Zhang et al. (2022) revealed that the use of nonverbal cues in a course of study (especially personified emojis) fostered students' connection with the materials and boosted their engagement with the course. Similarly, Dobinson (2022) also found that nonverbal cues during online exchanges could build closeness and interconnection among students, as well as between students and teachers, in an

online learning context, a finding in line with that of Belt and Lowenthal (2023), who found that the presence of nonverbal cues in online learning via videoconferencing can improve communication and enable teachers to assess students' engagement levels.

2.3.2 Multimodal interaction and LX learning

Interaction is a key aspect of LX learning (Mackey et al., 2012), and it could allow students to apply grammatical rules to experiment with new vocabulary and pronunciation, generally for practical language use. In FTF oral interaction, communicative exchanges are carried out through gestures, intonation patterns, facial expressions, paralinguistic cues and other multimodal interactions. Multimodality in LX learning refers to incorporating various modes of communication beyond the traditional verbal and written text into communication, including visual, audio, gestural and digital resources (Diamantopoulou & Ørevik, 2022). This approach recognises that language learning is not a monolithic process but an intricate interaction of diverse communicative practices. In recent years, there has been growing interest in exploring how multimodality contributes to the LX learning process. Multimodality is vital in various LX learning environments, either inside and outside the classroom or in person and online. Researchers have suggested that the use of multimodal tools by teachers and students alike can be a powerful aid in fostering thinking and learning (Lim, 2021; Urbanski & Stam, 2023).

The use of nonverbal cues during LX interaction is increasingly recognised as an essential support for fostering communication (Benattabou, 2020), because language comprises more than just a set of linguistic rules; it is holistic and embodied (McCafferty, 1998). This perspective aligns with the intertwined nature of speech and the simultaneous occurrence of speech and gestures, which further enriches communication, according to Vygotsky (1986). Speech, gesture and thought are not isolated in communication, but they are interwoven, influenced and enhanced each other. To expand on this concept, McNeill (1992) argued that speech and gesture were dialectically engaged, which means they interact dynamically. For example, gestures contribute to visual and physical imagery that could enrich the context of communication. Gestures could complete the act of speech, which provides the linguistic structure necessary for articulating thoughts.

Currently, the digital age offers online platforms with multimodal resources. Students and teachers can use videoconferencing, which can provide audio and visual modes for communication and a learning and teaching medium. For example, in the Zoom meeting platform, students can communicate and negotiate orally to complete tasks with additional gestures, facial expressions and gaze (Kumagai, 2023). This scenario requires students to make choices and act on these choices about the semiotic resources they want to use for optimal gains in the target language exchange. While in the text chat channels, students can use visual sign recourses, such as emojis, GIFs and images, to strengthen their messages, adding detail or emotions to the conversation (see Algaraady & Mahyoob, 2021; Liang, 2022; Mudure-Iacob, 2021). Therefore, educators are encouraged to promote these semiotic recourses' important role in creating more interactive LX learning experiences. The following sections discuss some types of semiotic resources available on the online platform Instagram, including emojis, images, GIFs, gestures, gazes, proxemics and facial expressions.

2.3.2.1 Emojis, images and GIFs

Online written communication is often challenged by the lack of paralinguistic cues, such as gestures, facial expressions, tone of voice and general body language. This absence can lead to interlocutors' misinterpreting messages and emotions (Dresner & Herring, 2010; Gawne & McCulloch, 2019). To counter this, visual-based nonverbal cues, such as emojis, images and GIFs, have been developed to supplement messages in text chat-based communication. Emojis are basically the evolved form of emoticons that concisely convey emotions, reactions and simple concepts through a digital icon. Images act as visual anchors for vocabulary and concepts, aiding in memory retention and recall. They can capture complex ideas or contexts that would require extensive explanation in text form. GIFs are an extension of emojis and bring an additional layer of context to digital communication. In the context of LX learning, digital visual cues can provide students with examples of authentic digital interaction and language use in various social contexts. Emojis can give students a unique way to underscore their expression of emotion, which might be lost when using written language alone. This can be especially beneficial for students navigating a new language's complexities, providing an accessible means of communicating feelings and reactions without the need for extensive vocabulary. By associating words with images, students can more easily remember new vocabulary and grasp abstract concepts. GIFs can mimic the subtleties of body language and

facial expressions, offering insights into the pragmatic aspects of language that are crucial for effective communication.

Research indicates that emojis can play a critical role in online communication. They can serve as iconic and pragmatic markers of speaker intention. For example, a study by Alshenqeeti (2016) revealed that emojis can express sentiment, strengthen expression, adjust tone, describe context and express humour, intimacy and irony. In addition, Gawne and McCulloch (2019) noted that emojis also function as gestures in digital communication, functioning as backchanneling and helping to clarify the speakers' intentions. Al Rashdi (2018) also observed that emojis can be used to show approval, express thanks, signal the start and end of conversations and even indicate the completion of requested tasks. Those roles indicate that emojis can serve as textual representations of oral discourse markers and facilitate students' multimodal communication (Halvorsen, 2012). Furthermore, the use of emojis and GIFs may be influenced by cultural, age, and gender factors (Chen et al., 2024). For example, Koch et al. (2022) found that younger individuals use emojis more frequently than older individuals, and women use them more often compared to men. These findings highlight the communicative value of emojis in various contexts and their role in modern digital communication.

2.3.2.2 Gestures, gaze, proxemics and facial expressions

Gestures are typically defined as symbolic movements that are intricately related to ongoing speech or a speaker's intentions to express something in their message (Kendon, 2004; McNeill, 1992). This relationship between gestures and speech underlines the complexity of human communication and confirms that gestures are integral components of individuals' expressive communicative repertoire (McNeill, 1992, 2000; McNeill & Duncan, 2000). The study of gestures within the LX context has long been recognised within FTF or online learning environments (Cao & Chen, 2017; Stam & McCafferty, 2008; Urbanski & Stam, 2023). Analysing the use of gestures can enhance our understanding of the processes involved in speech production and how students construct meaning involving gestures in interactions. Gestures can help speakers formulate and convey their message and help interlocutors decode and interpret the messages holistically (Schandorf, 2019).

Previous studies have explored the role of gestures in LX learning and interactions. For example, Gullberg (1998) found that speakers often use gestures as a strategic tool to compensate for gaps in and enhance their verbal communication. Further, Negueruela et al. (2004) examined how gestures contribute to LX intrapersonal problem-solving, revealing that students in their study often use gestures to work through language-related challenges. Mortensen (2016) focused on the role of gestures in repair work during conversation, demonstrating how non-verbal cues are employed to address and resolve misunderstandings in communication. Additionally, Dahl and Ludvigsen (2014) found that visual cues via gestures enhance spoken language understanding, while Negueruela and Lantolf (2008) reported that students often use gestures to assist in recalling or conveying specific vocabulary or lexical searches. Finally, Eskildsen and Wagner (2015 suggest that gesture plays a crucial role in learning and retaining new words. Together, these studies portray a comprehensive picture of the multifunctional role of gestures in LX learning and interactions and are important for this current study in that they highlight the vital role of gestures in helping communication, as well as complementing the cognitive process.

2.4 Interactive alignment

Interactive alignment refers to how human interactions are synchronised and maintained. Alignment is influenced by the speaker's ability to adapt and respond to changing cognition, bodily cues and the environment. Interactive alignment occurs when speakers repeat each other's expressions, structures and conversational pronunciation patterns (Chartrand & Bargh, 1999). It results from priming within the language system, when speakers use the same linguistic representation, they have just encountered because those representations are still activated in memory (Pickering & Garrod, 2004). In conversation, linguistic representations employed during production are the same as those activated during comprehension. Thus, a representation that has been activated by a learner during comprehension remains active for a short time and can then be used for production by that learner (Pickering & Garrod, 2004). This theory is consistent with various input and output effects within the language system at different levels.

2.4.1 Interactive alignment and LX learning

In a language-learning context, the term interactive alignment refers to the phenomenon wherein speakers reuse, adapt and prime their language to each other at the level of expressions, structures and sounds (Costa et al., 2008). This helps speakers simplify their production and comprehension during interaction by supporting explicit inferences and enables them to develop and reuse routine expressions in dialogue (Pickering & Garrod, 2004; Zhou & Wang, 2021). Informed by sociocognitivism, Atkinson (2014) expanded the scope of alignment beyond the linguistic level by including how learners adapt to their environment and coordinate their mental and physical actions to maintain the flow of conversation and achieve successful conversation. In other words, learners align with all aspects of the learning process, including verbal, nonverbal and mediated learning tools (e.g., laptop, whiteboard, screen) in any environment or social practice. Sociocognitivism considers alignment as part of the learning process, in which learners build moment-to-moment social relations and cooperative social action in an LX environment. Through alignment, learners can engage in social activities that support the use of the target language and its development in any social situation (Atkinson, 2014).

CMC studies have explored alignment in various language-learning contexts. For example, Uzum (2010) investigated the occurrence of verbal alignment in CMC interaction through the text-chat transcription and stimulated-recall interviews and found that the alignments were manifested in fluency and speed, negotiation of meaning and lexical and grammatical choices. Michel and Cappellini (2019) explored linguistic alignment in synchronous video and text chat and found that learners performed structural alignments by imitating the grammatical patterns used by their counterparts more often than they did lexical alignments, such as applying similar word choices. Evidence of alignment was also noted by Zhang (2017), who measured it quantitatively and found that learners performed higher alignment during the continuation activity than during the summary activity by reusing the same phrase acquired from the input assignment in the sentences they wrote during the tasks. Thus, reusing words/phrases affected learners' lexical acquisition and enhanced their interactive alignment.

2.4.2 Multimodal interactive alignment

According to scholars like Guichon and Cohen (2016), using multimodality for meaning-making during online interaction enhances language learning. For example, learners can strategically use multimodality to reinforce the conveyed meaning in text chats by adding emojis (Li & Yang, 2018) or gesturing to negotiate meaning during videoconferencing (Lee et al., 2019). The widespread use of CMC to support language learning has changed the complexity and dynamics of how humans use their language to exchange ideas and information in online communication, including how they align interactively in online conversation. Interactive alignment shows how humans tend to collaborate in their language use by adapting, priming and reusing verbal and nonverbal cues to achieve mutual understanding (Nishino & Atkinson, 2015; Pickering & Garrod, 2004). In an LX learning context, multimodality and alignment have become central to a sociocognitive approach to learning and teaching based on the belief that the human body, mind and the environment around the sites of communication operate collaboratively in the process of language learning (Atkinson, 2011b). Learners naturally adapt to the learning environment by performing interactive alignment (Atkinson, 2014). Therefore, a sociocognitive perspective recognises the involvement of multimodalities in language learning, such as gestures, images, sounds, animations and videos.

Multimodal interactive alignment extends the concept of interactive alignment to encompass linguistic and paralinguistic modes of communication, such as gestures, facial expressions and other visual cues, to achieve communication synchrony. This broader view acknowledges that human communication and language learning are inherently multimodal. In language-learning contexts, multimodal interactive alignment can significantly affect students' ability to acquire and use new language effectively. The involvement of nonverbal cues along with verbal cues to foster interaction in LX learning via CMC has attracted growing research attention. Lee et al. (2019) examined the role of gesture in videoconferencing interaction using multimodal analysis and noted that learners extended their verbal negotiation of meaning by showing iconic gestures (representing object/action) and deictic gestures (pointing hand) to enhance mutual understanding. Regarding nonverbal cues' role in text-based CMC, Maa and Taguchi (2022) investigated emojis as pragmatic resources in text chats between LX Japanese learners and their native-speaker peers. Their findings revealed that learners incorporated emojis into their text messages to add expressiveness to their sentences, adjust the tone of the conversations or

build interpersonal relationships with their interlocutors. The current study attempts to expand the investigation of alignment from verbal alignment to both verbal and nonverbal behaviours across multiple communication channels (e.g., text, audio, video) with the belief that co-occurrence of multidimensional alignment could help us better understand the effect of semiotic resources on facilitating LX learning.

Using nonverbal cues for interactive alignment during conversation is the natural outcome of interactions in many situations, whether offline, FTF discussions or online ones (Oben & Brône, 2016; Zhou & Wang, 2021). For the last two decades, studies have explored verbal alignment in language-learning contexts in both offline, FTF settings and online ones (e.g., Dao et al., 2018; Kim et al., 2019; Michel & Cappellini, 2019; Michel & Smith, 2018; Uzum, 2010; Zhou & Wang, 2021). Studies on interactive alignment simultaneously analysing both verbal and nonverbal cues, however, are scarce. Oben and Brône (2016) explored the alignment process at the lexical and gestural levels during task completion in offline FTF conversation. Given that the rise of multimodality in CMC today might have created more complex and diverse kinds of alignment due to the emergence of new features in digital platforms, research investigating interactive alignment entailing both verbal and nonverbal cues in online interaction is needed.

2.5 Summary

This chapter has discussed an overview of the literature and relevant studies around the study of multimodal CMC tasks via Instagram for fostering English communication. Some conclusions can be derived from this chapter: First, the sociocognitive framework acknowledges that learning process involves cognition, the physical body, and the environment, and it is a part of human mechanism to ensure survival (Atkinson, 2011a). Second, the real-time interaction and communication facilitated by CMC technology offer students a unique opportunity to practice language skills in an engaging environment (Barley, 2021), which could develop various language skills, including speaking, listening and immediate feedback reception, which is crucial for language acquisition. Third, nonverbal cues are not isolated in communication but interwoven, influenced, and dialectically engaged (McNeill, 1992). Finally, people tend to build interactive alignment during conversation by repeating each other's expressions, structures, and conversational pronunciation patterns

(Chartrand & Bargh, 1999). This process results from priming within the language system when speakers use the same linguistic representation they have just encountered because those representations are still activated in memory (Pickering & Garrod, 2004). Interactive alignment also encompasses both linguistic and paralinguistic modes of communication, such as gestures, facial expressions, and other visual cues, to achieve communication synchrony. In language learning contexts, multimodal interactive alignment can impact students' ability to acquire and use new language effectively, as the involvement of nonverbal cues along with verbal cues fosters interaction in LX learning.

Chapter 3
Research Methodology

This chapter explains the overall approach and design adopted to address the main objective that was to understand the students' experiences and examine their English-language use while completing the communicative tasks as explained in the section 3.2.3.1. The study aimed to answer two main research questions, along with one sub-question each:

1. How did students perceive completing multimodal CMC tasks via Instagram outside the classroom?
    1a. What were students' experiences with completing CMC tasks via Instagram?
2. What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom?
    2a. In what ways did students display multimodal interactive alignment in CMC tasks via Instagram outside the classroom?

To address these questions, the research employed a mixed methods case study design. Quantitative and qualitative data were used to answer research questions 1, 1a, and 2, while the analysis of students' task interaction discourse was specifically utilised to explore research questions 2 and 2a. This chapter also discusses the interpretivist research paradigm that underpins the study and further elaborates on the case-study design, detailing the settings, participants involved and ethical considerations. Methodological procedures are outlined, covering the pilot study, main study, and various data collections tools employed. The chapter also addresses the data analysis methods, highlighting both quantitative and qualitative techniques, as well as multimodal interaction analysis to provide a holistic understanding of the phenomena. Further specifics of each aspect will be discussed in the following sections.

3.1 Interpretivism as a research paradigm

A paradigm is a lens through which people perceive the world, shaping the understanding and interpretation of the investigated phenomena. Willis (2007, p. 8) defined *paradigm* as 'a comprehensive belief system, worldview or framework that guided research and practice in a

field'. Paradigms inform the nature of reality, knowledge and procedures for understanding and gaining knowledge and direct the thoughts and actions of the researcher when conducting research. Creswell and Poth (2018) described a paradigm as a basic set of assumptions that tells the methodology, such as strategy, plan of action or research design and methods, including techniques or procedures used to gather, analyse and interpret the data. Relevant to the nature of the inquiries in this study, interpretivism was selected as the research paradigm since it emphasises understanding and interpreting the meaning behind human actions, behaviour and experiences (Grønmo, 2020).

Interpretivism views the social world as complex, multifaceted and impossible simply to be reduced to cause-and-effect relationships. Instead, it emphasises the importance of context, culture and social norms in shaping human behaviour and experiences. As Altheide and Johnson (2013) point out, interpretivism presumes multiple realities and that different people experienced each differently. Qualitative research widely emphasises the emic perspective, which is based on the basic ontological assumption that each observer constructs reality subjectively. Thus, our understanding of reality comes about only through representation (Denzin & Lincoln, 2013). From this perspective, Denzin and Lincoln (2013) further characterise interpretive qualitative research as an aesthetic experience in which multiple interpretive practices emerge organically rather than being predetermined throughout the research process. This perspective emphasises the importance of understanding the rich, complex reality that individuals perceive. Interpretivism, as a research paradigm, seeks to uncover the subjective meaning that individuals attach to their experiences. It posits that facts construct reality and are bound to time and context (Lincoln & Guba, 2005). This paradigm appreciates the subjectivity inherent in peoples' perspectives on and understanding of their experiences (Leavy, 2017). Unlike value-free research, interpretivism emphasises that researchers recognise and acknowledge their own biases and values that could inevitably influence their interpretation of data (Cohen et al., 2018). This approach is central to facilitating a deeper understanding of the perspectives and experiences of the individuals under study.

3.2 Case-study design, instruments and procedures

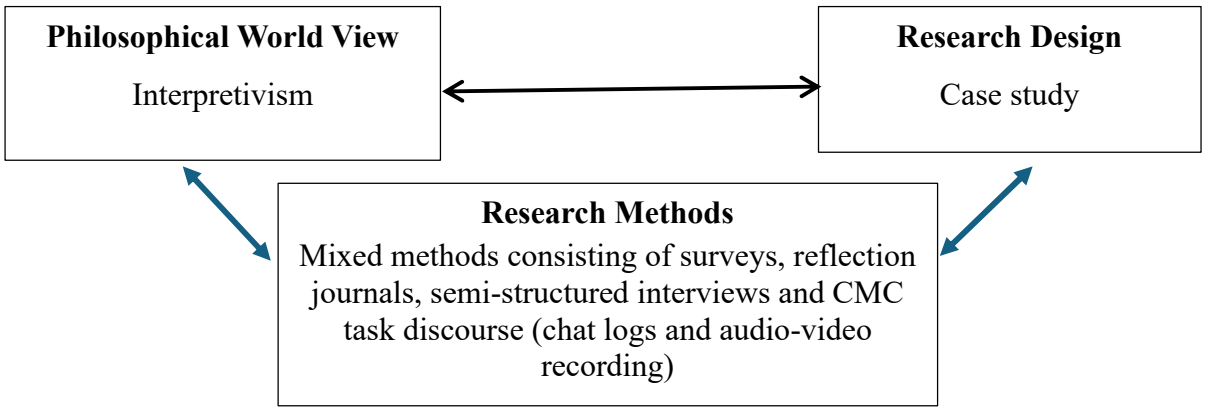
For this study, I selected a case study as the research design to document the experiences and interactions of students using specific language-learning tasks, especially multimodal CMC

tasks, through Instagram. According to Schwandt and Gates (2018), a case can generally represent any social entity at any social-system level. This could involve one or multiple actors and include an entity with distinct characteristics, such as a person, group, organisation, event, activity or process (Yin, 2003). Within the context of educational research, a case could be associated with individuals (Cohen et al., 2018), such as, in this study, business and economic faculty students enrolled in a private university in Indonesia. Furthermore, an event, such as a program or activity related to educational practice, is categorised as a case (Johnson & Christensen, 2017); here, the students were involved in multimodal CMC tasks outside the classroom via Instagram to foster their English communication.

Choosing a case study as the research design held a significant advantage for this investigation. A case study offered the opportunity for an intensive and comprehensive description and analysis of the phenomena (Christensen et al., 2015). This design also enabled a comprehensive illustration of English-language use within a particular demographic group and setting (Mackey & Gass, 2015). It also allowed me to employ flexible and adaptable methods. This meant that the case study was not confined to a specific methodological tradition, thus allowing me to incorporate multiple data sources to gain a more holistic understanding of the phenomenon (Gerring, 2017; Yin, 2018), as illustrated in Figure 3.1.

Figure 3.1

Relationship Among Paradigm, Research Design and Methods (Adapted from Creswell and Plano Clark, 2018)



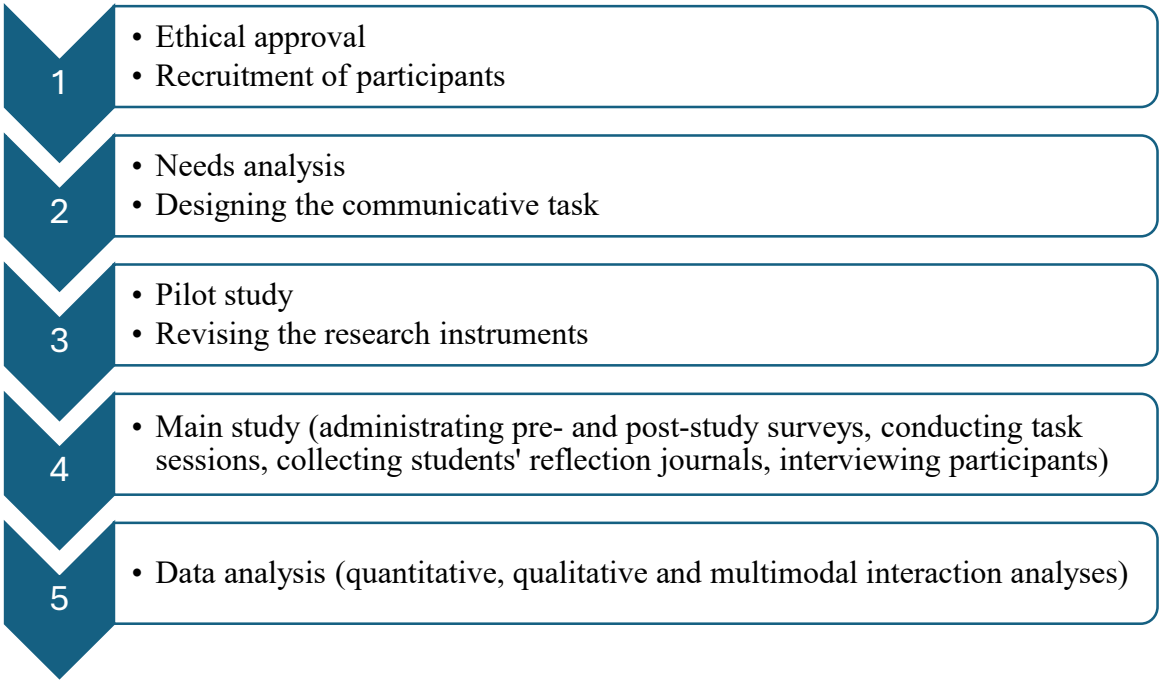
The critical strength of the case study was its ability to engage various data-collection instruments, such as surveys, reflection journals, interviews and CMC task discourse. The richness of data collected from diverse sources gave the case study robustness, depth and credibility (Yin, 2003, 2018). Each data-collection tool added a unique layer to understanding the research problem. For example, surveys provided quantitative data that could offer insight into the trends, whereas reflection journals and interviews provided qualitative data that could reveal individual experiences. Considering the aims of this study, to fully boost the potential of a case-study design, a mixed-methods approach was selected for data collection. Creswell (2012) suggests that mixing qualitative and quantitative methods is appropriate since using only one data-collection method would not allow the research questions to be answered. Moreover, when I aimed to gather more detailed and specific information from the collected data set, employing mixed methods became a suitable strategy.

Consequentially, a mixed-methods design was selected for this study to maximise the strengths and compensate for the weaknesses of different data-collection methods, following Creswell's (2012) recommendations. This design aimed to generate comprehensive results by combining different types of information. While each data-collection method could stand independently, the combination results offered a multidimensional perspective, adding depth and breadth to the findings. Under the consequential mixed-method design, qualitative and quantitative data were collected simultaneously but analysed separately (Creswell & Plano Clark, 2018). This approach allowed each data set to be thoroughly understood in its context before being compared and interpreted collectively to discern whether they corroborated or contradicted each other. This method ensured a more robust understanding of the research problem.

The study involved five phases of data collection, as shown in Figure 3.2:

Figure 3.2

Research Procedures of Case Study with Mixed Methods Design



Phase 1: The research began by obtaining ethics approval from Curtin University's human ethics committee in June 2020. Next, the recruitment process was initiated by contacting the targeted university with the help of a research gatekeeper (see Chapter 3, Section 3.2.2.2). Recruitment strategies included asking English language instructors to offer potential participants information about the project. Data for stages one and four were collected using the survey. Interested individuals were briefed on the study's aims, procedures and their rights as participants, as well as the ensured confidentiality of the data and the voluntary nature of their participation.

Phase 2: A needs analysis was conducted to tailor the research design to the participants' technological knowledge base learning objectives and communication needs. This involved surveying and interviewing the participants to understand their experiences using technology for LX learning, their technological preferences and their areas of interest.

Phase 3: Before the main study, a pilot study was conducted with a smaller number of participants to test the feasibility and effectiveness of the research instruments, such as communicative tasks, surveys, journal prompts and interview questions. Feedback from the pilot study was analysed to identify any issues or areas for improvement (see Chapter 3, Section 3.2.4.1).

Phase 4: The main study involved administering a pre-study survey to establish a baseline for understanding participants' previous experiences related to technology and communicative tasks for LX learning. The participants then completed the communicative tasks to foster their English language communication. Throughout the study, participants' reflection journals were collected to document their personal experiences, perceptions and reflections on the learning process. The post-study survey was then administered to assess their experiences, perceptions and attitude changes. Semi-structured interviews with participants were conducted to gain their qualitative opinions of their learning experiences, challenges faced and the perceived effect on their LX learning of performing the communicative tasks via Instagram.

Phase 5: Quantitative and qualitative data were analysed independently using inferential statistics and thematic analysis procedures. The results of the two data sets were merged and included, and the separate results were compared or transformed. I interpreted the extent to which, and in what ways, the two data sets of results converged and combined to better understand the response to the study's overall purpose.

3.2.1 Ethical considerations

According to Bos (2020), ethics generally correlates closely with moral principles and emphasises notions of fairness and justice. Within the context of research, ethics are significant in addressing moral issues that might arise in engagement with human participants. The adherence to ethics ensures that all research processes, from planning to implementation, take into account participants' rights (Cohen et al., 2018). Prior to initiating the data-collection phase, I sought, and obtained, full ethics approval from the Human Research Ethics Office of Curtin University. In the implementation of data collection, I was guided by four key ethical considerations: 1) to ensure participants' interests and rights, 2) to avoid coercing participants,

3) to respect their privacy and identity and 4) to minimise the risk of harm (Bos, 2020; Rose et al., 2020).

First, considering that I was not a part of the community under study, I recruited one of the teachers as a gatekeeper to connect me to the institution and participants. He assisted me with recruitment of the participants before the study and maintained the relationship between the participants and myself during the project. I also ensured participants' interests and rights were acknowledged by providing information statements that explained the nature of the project and providing information about myself. This protected participants' well-being throughout the research by ensuring that they understood the nature and purpose of the study and the risks involved (Tracy, 2020). In dealing with informed consent, I ensured participants' freedom to withdraw at any time from the study without affecting their academic standing or careers. I also provided them with contact details if they wanted to ask any questions or request more information concerning the research. I sent the request letter and information sheets to the potential participants. The request letter and information sheets clearly stated that participants should not feel pressured to participate and could withdraw from the study without any consequences.

To minimise the possibility of students' being coerced into the project, the instructors made it clear that the project was not part of university work and that they had no connection with it and had nothing to gain from students' taking part in it. The researcher ensured that this was clear by emailing the students again and reinforcing that their participation was completely voluntary, they could withdraw anytime and there would be no academic or social effect if they did not participate. There was an online meeting among the head of the school, teachers and participants before the commencement of the research to ensure that the participants experienced no psychological issues while participating in the research program. In this meeting, students discussed their involvement in the study after reading the research procedures and purposes outlined in the Participant Information Statement (see Appendix A).

Next, I ensured the participants' confidentiality in this study by not disclosing their actual names but using pseudonyms. All data were coded during the analysis, and pseudonyms were used to write the final report. Data obtained from the participants were stored securely

throughout the research process. The data were kept securely on my computer hard drive and Curtin University OneDrive.

Finally, there were some potential risks to the participants in the project, such as feeling exhausted from doing the tasks, overwhelmed by the tasks, embarrassed if they could not cope with the technology of the tasks, coerced to do the tasks or worried about COVID-19 pandemic health issues during the FTF components of the research. To reduce these risks, I conducted a task needs analysis to identify the tasks preferred by the participants. I was prepared to change the schedule if students tired of the tasks or could not cope with them. I also surveyed participants' readiness and availability before scheduling the tasks, used technology tools well known to participants and took the time to teach the students how to use the tools with an online tutorial. I reiterated that the nature of participation in this study was voluntary and that participants could withdraw at any time. As the study was conducted online, there was no physical contact among participants, and they could perform the tasks from their homes safely.

3.2.2 Case selection

This section discussed the case selection, including the research site, settings and participants' profiles in the present study. I began with a thorough description of the chosen site, such as the name of the institution, location and some unique characteristics of this site. Following this, I detailed the participant's demographics, including the total number of participants and their background profiles.

3.2.2.1 Research site and setting

To select the case, I relied on Gerring's (2017) key guidelines of factors to consider before study selection, including practical logistics, intrinsic importance and representativeness. A case should hold *practical logistics*, which refers to the researcher's ability to access the case and safety concerns related to the data collection. In line with this suggestion, the current study was conducted at a private university in Surakarta, a rural district in Central Java province, Indonesia. I selected this university based on its accessibility and granting of permission to conduct research despite the ongoing challenges posed by the COVID-19 pandemic that prevented physical access to the participants. This research was mostly conducted during

lockdown, when I was based in Perth, Western Australia. Therefore, I established gatekeepers who connected me with the participants. In educational research, gatekeepers play a vital role in helping researchers gain access to the potential study subjects, initiating introductions to them and recruiting them as research participants (Cohen et al., 2018).

Secondly, the case had intrinsic importance: it had an effect on and held interest for a specific readership. In this study, implementing multimodal CMC tasks to foster English communication through Instagram chat was a novel approach to extending formal classroom activities, especially in Indonesia. As noted in Chapter 1, much of the Indonesian youth population has adopted Instagram as a primary communication platform. This assertion was corroborated by the extensive number of Instagram users in Indonesia with more than 91 million by 2021 (NapoleonCat, 2021). They also use Instagram for various tasks, including sharing personal interests, debating personal sentiments and marketing individual services and products (Prihantoro & Zulizilah, 2017). Given this ubiquitous use of Instagram, it was critical to understand its affordances for LX learning (especially English) and the nature of students' multimodal interaction through Instagram chats.

Lastly, Gerring (2017) asserted that the chosen case should embody *representativeness* to the wider population. This university served as a representative sample because it mirrors the typical characteristics of most universities in rural Indonesia. Furthermore, it enrols a diverse student body from various regions of the Indonesian archipelago. As noted, Indonesia comprises many islands and tribes, each with unique local languages. The student population of this university comprises individuals from the four most densely populated islands: Sumatra, Sulawesi, Borneo and Java. Thus, it could be argued that this sample mirrors the average Indonesian student population's demographic profile.

3.2.2.2 Research participants

As Johnson and Christensen (2017) explain, the case-study method enables researchers to select participants meticulously based on predetermined essential characteristics. My precise focus on a specific group fostered a deeper understanding and yielded more detailed and relevant information for the study. The selection of participants for this study was guided by a purposive sampling technique that aligned with the criteria outlined in the previous section.

The participants were selected from the first-year student population of the Economic and Business School Management Department. The choice of this department was strategic because it was the largest department in the university, with approximately 360 first-year students distributed among 12 parallel classes, each containing 27–30 students, each of whom were enrolled in an English-for-communication course. At many Indonesian universities, including this one, non-English-major students must take an English course in their first year. This regulation follows the national higher-education curriculum. I also required that all participants possessed a minimum English-proficiency level of A2 in the Common European Framework of Reference for Languages (CEFR) based on their English test for university entrance. There were 36 students, 18 males and 18 females, who agreed voluntarily to participate in this study. They were enrolled in class C (five students), class D (nine students), class K (eight students) and class L (14 students). Their ages ranged from 18 to 21 years old.

The recruitment process for this study was initiated by reaching out to the head of the management department. I detailed the research plan and sought approval through email. After obtaining research ethics approval from Curtin University's human research ethics committee, I telephoned them. Upon receiving permission from the head of the Department, I contacted two instructors to help recruit the participants. An invitation email was sent to the teachers containing essential information about the research project and a consent form to be distributed among the potential participants (see Appendix A). Once the signed consent forms were received from the interested students (see Appendix B), these participants were formally enrolled in the study. An Instagram group was established to facilitate smooth communication and information dissemination throughout the project, as well as to share relevant information about the research project and as an open forum for discussions related to the project. This strategy guaranteed that the participants were well-informed and comfortable and that any issues arising during the project could be promptly addressed.

3.2.3 Data-collection tools

As the study employed a mixed-method approach, it necessitated using multiple data-collection techniques, including communicative tasks, surveys, reflection journals and semi-structured interviews. These different tools provided rich data about students' experiences using multimodal CMC tasks through Instagram and documented the nature of their English-

language use during task interaction. These multiple data sources contributed to the triangulation of the research, enhancing its trustworthiness and validity (Cohen et al., 2018; Stake, 2010). All instructions and questions in the surveys, journal prompts and interviews were presented in Indonesian to ensure clarity and avoid misinterpretation by the participants. The following sections present a detailed discussion of these investigative tools.

3.2.3.1 Communicative tasks

As defined by Nunan (2004), a *communicative task* requires students to participate in an activity that applies the target language to attain a specific objective or goal. Rather than focusing on the explicit instruction of grammar rules or vocabulary, this task's main emphasis is on conveying meaning and facilitating communication (Ellis, 2003). According to Long (2015), communicative tasks should be designed to emulate authentic situations where language is a tool for expressing meaning and achieving desired outcomes. In designing the task, I followed four key criteria proposed by Ellis (2003, 2018):

1. The student's principal focus should be on using language to *convey meaning* instead of concentrating solely on language learning.
2. There must be a *discernible gap* that stimulates the sharing of information or the expression of different opinions.
3. The task must predominantly rely on both the students' linguistics abilities and non-linguistic resources. This means that they must employ language skills and other methods, such as gestures, to communicate effectively.
4. There should be a *communicative result*. The task is deemed complete once this result is accomplished. The success of task completion does not hinge on flawless language usage but rather on achieving the intended outcome.

In addition to these criteria, task design should prioritise relevance to the student's needs. This notion, suggested by Prabhu (1987) and Long (2005), highlights the importance of, before task design, conducting a needs analysis, which comprehensively examines the language tasks students might need to perform, especially outside the classroom (Long, 2005).

Aligned with this approach, I conducted a needs analysis before designing the communicative tasks. The needs analysis was carried out October 9–26, 2020. It was sought to investigate three key areas: 1) students' previous experiences using social-networking tools, 2) their preferences for using social-networking platforms in their English-learning journey and 3) their preferred topics for English-language-learning tasks. The methods employed for data collection were an online survey and semi-structured interviews. The survey, containing 23 questions, was administered through Qualtrics, a commonly used online platform for survey design (see Appendix C). This anonymous survey was distributed to 30 first-year students from the economic and business school at a private university, in Central Java Province, Indonesia. Nine students (three males and six females) participated in an online semi-structured interview. Most interviews were conducted individually; a group interview, however, was arranged with three participants who requested to be interviewed simultaneously.

The findings of this needs analysis revealed that students predominantly used platforms like Instagram, WhatsApp, X and YouTube for English-language learning. Their engagement with these platforms, however, was primarily passive; they tended to consume educational content by reading someone's captions, tweets or posts rather than actively communicating with other users in English. In terms of topics, the analysis showed that students preferred English-learning tasks centred around family and friends, travel, movies and stories. These topics seemed to attract their interest and could enhance their engagement and motivation in learning English.

Considering the findings above, I developed the tasks that targeted the students' communication needs by pinpointing their preferred topics. To ensure task gaps, I incorporated Prabhu's (1987) task typology, including information, reasoning and opinion gaps into these tasks. Additionally, the tasks used various channels available in the Instagram chats. The detailed task design is shown in Table 3.1.

Table 3.1

Task Types and Procedures

Task Types	Task Description	Channel and Grouping
Pre-task sessions		
1. Reasoning gap	**Topic: Travelling** Students need to choose the best mode of transportation to travel to Bromo Mountain from the list of available options provided.	Text chat (in a group of three)
2. Opinion gap	**Topic: Family and friends** Students need to give their opinions about the definition of online friendship and its value.	Audio chat (in a group of three)
3. Information gap	**Topic: Story and Movie** Students need to guess six names of characters from famous stories and comics. Their partner will provide clues.	Video chat (in a group of two)
Main-task sessions		
4. Reasoning gap task	**Topic: Travelling** Students need to choose a tourism destination for the New Year's Eve holiday after COVID-19 restrictions end.	Text chat (in a group of two)
5. Reasoning gap task	**Topic: Travelling** Students must select 12-kg survival kits to support a journey to the nearest village from a ruined campsite.	Text chat (in a group of three)
6. Opinion gap task	**Topic: Family and friends** Students need to share their opinions about the meaning of best friends and how they build strong friendships.	Voice chat (in a group of two)
7. Opinion gap task	**Topic: Family and friends** Students need to give their opinions about two real-life situations that may happen around them, as shown in pictures.	Voice chat (in a group of three)

8.	Information gap task	**Topic: Story and movie** Students need to rearrange four movie clips into one complete movie; each person will receive two random movie clips taken from that movie.	Video chat (in a group of two)
9.	Information gap task	**Topic: Story and movie** Students need to tell a story from pictures assigned to them individually and rearrange the pictures into one complete story.	Video chat (in a group of three)

3.2.3.2 Surveys

I developed an online survey to gain comprehensive insights into students' experiences with using CMC tasks through Instagram to foster English skills. According to Dörnyei and Csizér (2012), the survey is a quantitative research method for collecting individual self-reported data to explore a large population's characteristics, opinions, attitudes and intended behaviour. One key advantage of using a survey is that a broad range of research participants is targeted, given that the distribution of a self-completing study is relatively straightforward once issues around the collection and storage of data are resolved (Braun et al., 2021). The survey was distributed and collected electronically, as this seemed the most efficient way of collecting data in a distance-learning environment. Participants were easily accessible, given that my research was conducted during the COVID-19 pandemic in Indonesia, while I was in Australia.

The survey was distributed via instant messaging and posted in the participants' Instagram group. Two surveys were used in this study: pre-study and post-study. The questions in both surveys were relatively similar and only differed in asking participants about the outcomes and preferences in using CMC tasks through Instagram. The survey was primarily designed through close-ended items scored on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree); other questions used these choices with an additional open answer choice (see Appendix C). The closed questions aimed to obtain an overview of the field. The types of closed questions were scored via multiple choice according to the information they sought to elicit.

The online survey included three main sections: background information, experiences of performing CMC tasks through Instagram and the effect of completing CMC tasks to foster their English communication. The first section, background information, consisted of questions eliciting participants' demographic information, including gender, age and experiences with Instagram. The survey was divided into three parts. The first part included statements about their experiences using CMC tasks through Instagram. The second part included engagement and beliefs about using various Instagram chats, such as text, audio and video chats, besides using nonverbal cues, such as emojis, GIFs, images, gestures, gazes and facial expressions to foster English communication. The last part asked about the perceived outcome and preferences related to using CMC tasks, including the types of tasks, various uses of Instagram chat channels and nonverbal cues.

3.2.3.3 Reflection journals

A *reflection journal* is a personal record maintained by students in which they document their thoughts, experiences, insights and feelings related to their learning process. This journal could be integral to various research methodologies (Connelly & Clandinin, 1990). It could promote self-awareness by regulating writing about their learning experiences; by doing so, students can become more aware of their own learning processes, strengths and weaknesses, and this self-awareness could lead to a deeper understanding of their learning needs and help them become more effective students (Moon, 2006). Enhancing critical thinking and reflecting on learning experiences encourage students to think critically about their learning, the teaching strategies and the learning environment. This reflection journal could also help them develop problem-solving skills and become more independent students (Alt et al., 2021)

According to Duff (2008), a reflection journal could help students develop metacognitive skills by encouraging them to think about their thinking, analyse their learning strategies and evaluate their progress towards their learning goals. Capturing authentic experiences in students' reflection journals in this study could provide me with rich and authentic data about students' learning experiences, emotions and experiences over time. This approach was invaluable for understanding the effect of educational interventions or exploring factors influencing learning success. Monitoring progress via journals could help students monitor their own progress over time, identify areas for improvement and celebrate their learning achievements. In this study,

they also wrote a weekly reflection journal after finishing each type of task through Qualtrics (see the list of prompt questions in Appendix C). It was hoped that this task might help students to reflect upon their experiences after each Instagram task. In the journal, they might discuss their feelings, insights and reflections on their behaviour, attitudes and thoughts about practising multimodal CMC tasks through Instagram to foster their English communication (Rudrum et al., 2022).

3.2.3.4 Semi-structured interviews

I used this technique to elicit further information regarding students' experiences using CMC tasks through Instagram. Semi-structured interviews were important to this study, as they contributed to the triangulation of collected data. Initially, I formed a set of guiding inquiries to examine the study's research questions. Following the conduction of the online survey, I reformulated and excluded some of these guiding questions and added a number of new questions based on the initial interpretation of data collected from participants.

An *interview* is a verbal exchange in which one person, the interviewer, attempts to acquire information from and gain an understanding of another person, the interviewee (Elhami & Khoshnevisan, 2022). An in-depth interview can identify participants' beliefs, knowledge, past experiences and feelings. I individually conducted each semi-structured interview online through Instagram voice calls, and the interviews lasted between 35 minutes and 50 minutes per session (see the list of interview questions in Appendix C). I audio-recorded all the sessions and asked the participants to allow me to contact them at the data-analysis stage for further inquiries about their experiences of using CMC tasks and the use of nonverbal cues. I offered participants a choice regarding the medium through which the interview would be conducted to ensure their comfort throughout the interview process. Most students preferred telephone calls due to their greater familiarity with this medium and the ease of recording the conversations. Before commencing each interview session, I set clear guidelines to ensure an ethical and effective interview process, including obtaining informed consent, explaining the interview purposes, anticipated duration and overall procedure. Additionally, I emphasised the participants' right to terminate the interview or ask questions anytime. To maintain the accuracy and reliability of the data collected, I validated participants' responses by paraphrasing and repeating their statements during the interviews. This confirmed the accuracy

of my understanding and the responses provided. I used a semi-structured interview format guided by a pre-prepared set of questions so that I remained flexible when exploring interesting phenomena to capture participants' experiences and perspectives deeply.

3.2.3.5 Students Instagram chat archives

The Instagram chat archives are a collection of digital conversations on Instagram platforms. These archives represent a digital CMC task discourse of exchanges of text, audio and video-based conversation. In this study, Instagram chats embodied the *multimodal digital discourse*, which meant that the messages and meaning were constructed through both written and spoken cues and nonverbal elements. This archive, therefore, captures all the elements involved in the exchanges, whether verbal or nonverbal. The students' text and audio chat logs were collected by downloading the archives. On the other hand, for the video chats, I required students to record their interactions, then, after finishing the task session, to email the recording to me.

3.2.4 Case study research procedures

3.2.4.1 Pilot study

A *pilot study* is a small-scale preliminary study conducted to evaluate the feasibility and potential effectiveness of a research project (Janghorban et al., 2014). It aims to identify potential issues or problems that could arise during the full-scale research project and help researchers refine the research design or intervention based on the preliminary results. It usually involves a small sample size and limited scope and is designed to test the research methodology, instrument and procedures used in the full-scale study (Ismail et al., 2017). The pilot may involve collecting and analysing data using the same methods as the full-scale study or focusing on a specific aspect of the research methodology or intervention. The result of the pilot study can provide valuable insight into the feasibility and effectiveness of the full-scale research project or intervention (Pearson et al., 2020). It can help the researcher refine their methods, procedures or interventions before undertaking the main study (Malmqvist et al., 2019).

The pilot study was conducted over ten weeks, from 1 December 2020 to 5 February 2021, at the business school of a private university in Central Java province, Indonesia. The participants

were 30 first-year business-school students who were taking English for international communication. To recruit participants, I contacted a faculty lecturer to help me seek permission to conduct the study at that school. Once the head of the school approved the proposal for the study, the lecturer invited his students from three classes within the management department to participate in this study. Participant information sheets and consent forms were given to the students before they agreed to participate.

Eight males and 21 females volunteered to join this study; all were between 18 and 21 years old. The participants were informed that they could withdraw from the study at any time without consequences. The participants' English-language proficiency was at a lower intermediate level since they had met the university's English requirement for enrolment. The participants worked in dyads or groups of three to complete seven CMC task sessions delivered by me through Instagram using a smartphone from 7 December 2020 to 5 January 2021 (see Appendix D for full CMC task instructions). The results of the pilot study were published in Muntaha, Chen and Dobinson (2023), Exploring students' experiences of using multimodal CMC tasks for English communication: A case with Instagram. *Educational Technology & Society, 26*(3), 69–83.

Conducting a pilot study was an essential precursor to conducting research using this method. The results of this pilot study informed the revision of the survey questions, task design and journal prompt, as shown in Table 3.2:

Table 3.2

Revision of Research Instruments

No.	Pilot Study	Revision for the Main Study
1	Survey questions: The questions related to nonverbal cues were still general, covering students' perception of all nonverbal cues.	The questions were separated into specific nonverbal cues to make the tasks more straightforward; for example, Question 9 focused on emojis, images and GIFs, while Question 10 was mainly about gestures and gaze.

2	Task design: • During the pilot study, there were only seven tasks (two tasks conducted via text chat, two tasks via audio chat and three tasks through video chat). • Two video-chat tasks were set at the beginning of the task sessions, but students did not seem ready for video chats at first.	• The opportunities to perform all tasks via Instagram chat channels were equal, and each channel had three task sessions. • I designed a pre-task session containing three task sessions (one session for each Instagram chat, starting with text, audio and then video chat). • Video-chat task sessions were moved to the end since it seemed that students needed to adjust their familiarity with the CMC tasks from the less-demanding ones, like text chat, to the most challenging ones, video chat.
3	Journal prompts: There were only one to two question prompts at the beginning.	The guiding prompts were revised to require the exploration of their experiences stimulated by posing three questions: 1) How did they feel? 2) To what extent did the task help them in learning language and language use? and 3) How did the Instagram channel or nonverbal cues facilitate their task completion?

3.2.4.2 Main study

After refining the research instruments, the main study was conducted at a private university in Central Java province, Indonesia from October 2021 to February 2022. The study engaged 36 first-year students from the school of business and economy, especially those from the management department (See Chapter 3, Section 3.2.2.2). The participants comprised an equal gender distribution of 18 males and 18 females aged between 18 to 21 years old. The students were recruited voluntarily from four different classes, including C class (five participants), D class (nine participants), K class (eight participants) and L class (14 participants). Notably, the participants had not previously met in person and were recruited on a voluntary basis. Each participant was provided with a data-plan voucher valued at A$25 to facilitate their involvement in the study and assist with any data costs incurred during the study. Participants

used their personal smartphones to complete nine CMC task sessions (see Chapter 3, Section 3.2.3.1) through Instagram from November 2021 to January 2022.

3.3 Data analysis

This study adopted a mixed-methods approach to data analysis to investigate the various aspects of students' learning experiences, including quantitative, qualitative and MIA. Each method targeted different data types and served unique purposes in understanding the complexities of students' perceptions and interactions.

3.3.1 Quantitative data analysis

This study's quantitative data analysis used responses gathered through the Likert item scale on the pre- and post-study surveys. These items were designed to measure participants' perceptions of the multimodal CMC tasks, Instagram chat and nonverbal cues in online interactions that ranged from 'strongly disagree' to 'strongly agree'. Once collected, the survey responses were transferred to Statistical Software Package for Social Sciences (SPSS). To summarise the dataset and provide an overview of participants' responses, I employed descriptive statistics that calculated means and standard deviations for each survey item. Further, the non-parametric Wilcoxon signed-rank test was used to examine the changes in students' perception regarding the use of multimodal CMC tasks, Instagram chat and nonverbal cues. This test was chosen for its appropriateness in comparing the same group of participants' responses before and after participating in CMC task sessions (see Chapter 4, Sections 4.2 – 4.4).

3.3.2 Qualitative data

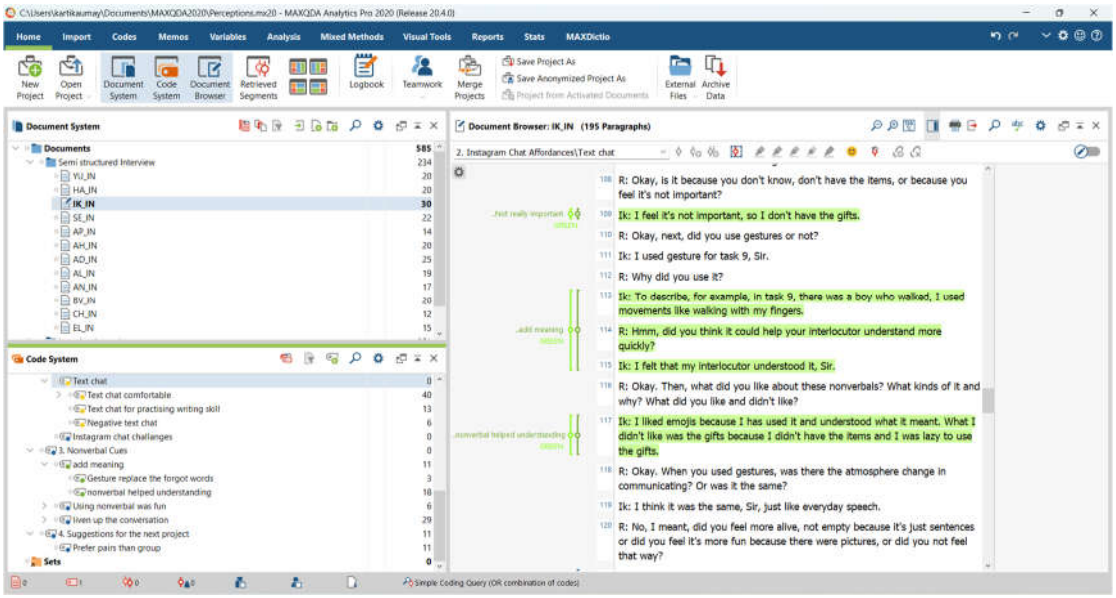
To complement the numerical survey results, the qualitative data collected from students' reflection journals and interviews underwent rigorous thematic analysis. Such analysis consisted of a search for themes that emerged to describe the phenomena (Braun & Clarke, 2013). This process was planned and executed in three main stages to ensure a holistic understanding of the student's experiences and perceptions, including (1) familiarisation and

data coding, (2) identifying patterns across data and (3) analysing and interpreting patterns across the data.

The initial phase of the analysis involved familiarisation and data coding, which required immersive engagement with the text through multiple readings of the collected data gathered from the reflection journals and interviews. This process involved active engagement with the material, whether reading textual data or repeatedly listening to interview recordings. Instances of early noticing were recorded as they emerged. These observations could range from overreaching impressions to specific, detailed issues relevant to the research questions. During this stage, I also began coding and identifying segments of the data pertinent to research questions using the MAXQDA application. This coding could be broad or finely grained depending on the relevance of the data chunk to the research focus, as shown in Figure 3.3. The objective was a systematic categorisation of the aspects of the data that directly addressed the study's aims. The outcome of this initial coding provided a structured overview of the data, which functioned as the groundwork for identifying patterns and themes.

Figure 3.3

Qualitative Data Coding Using MAXQDA



The second step of qualitative analysis was to identify broader patterns across the dataset. This step went beyond the frequency counts to interpret the significance of these patterns within the research questions, as shown in Table 3.3. The aim was to discern meaningful themes from the data psychologically and socially. A theme was considered important not just because it recurred but because it conveyed something important about the data in relation to the research aims. Themes typically contained a central organising concept but included various ideas related to or aspects of that concept.

Table 3.3

Example of Identifying Patterns Across the Data Process for Research Question 1

RQ1: How did students perceive completing multimodal CMC tasks via Instagram outside the classroom?		
Codes	**Sub-themes**	**Themes**
Felt worried at the beginning of the task	Improved confidence in using English	Growing confidence and willingness to communicate in English
Felt more confident using English		
Enhanced willingness to communicate	Enhanced willingness to communicate	
Improved motivation to learn English	Improved motivation to learn English	Improved motivation to learn English
Facilitated direct practice	Felt it offered more real-life task practice due to spontaneous and direct conversation	Created enjoyment and fun in learning English
Resembled a real-life task		
Felt it was a more real practice due to spontaneous and direct conversation		
Felt fun to communicate with new friends during COVID-19 pandemic	Felt fun to communicate with new friends during COVID-19 pandemic	
Felt that in-person class activities were boring	Felt fun compared to the classroom	
Perceived having less opportunity to practise when in offline class		
Challenges of pair and group interaction	Challenges from partners	

Felt less enthusiasm		Challenges faced in completing tasks through Instagram
Challenges to conveying ideas clearly	Internal challenges from students themselves	
Challenges to pronouncing correctly		
Faced grammatical problems in English communication		

The final stage involved more analysis and interpretation of the identified patterns and themes, piecing together the broader narrative and seeking to understand how and why certain themes emerged and what they revealed about the participants' experiences. It involved a critical and analytical reading of the data, asking probing questions about the participants' perspectives and the determining the implication of these findings for the broader research objectives (see Chapter 5, Sections 5.1 – 5.3).

3.3.3 Multimodal interaction analysis

As explained in Chapter 2, the MIA framework focuses on examining human communication by considering various modes of expression and their interplay (Norris, 2004). As Norris and Pirini (2016) define it, MIA is 'a holistic analytical framework that understands the multiple modes in interaction as all together building one system of communication' (p. 24). In other words, the primary goal of MIA is to understand how different communicative modes synergise to shape human interaction and influence their interpretation of a situation or message. In conducting MIA, Norris (2019) suggests the interconnected and mutual dependency of the body and mind on their surroundings as a philosophical stance. Thus, in the MIA context, these modes encompass verbal, visual, gestural and other forms of communication, each of which contributes uniquely to the overall meaning conveyed in an interaction.

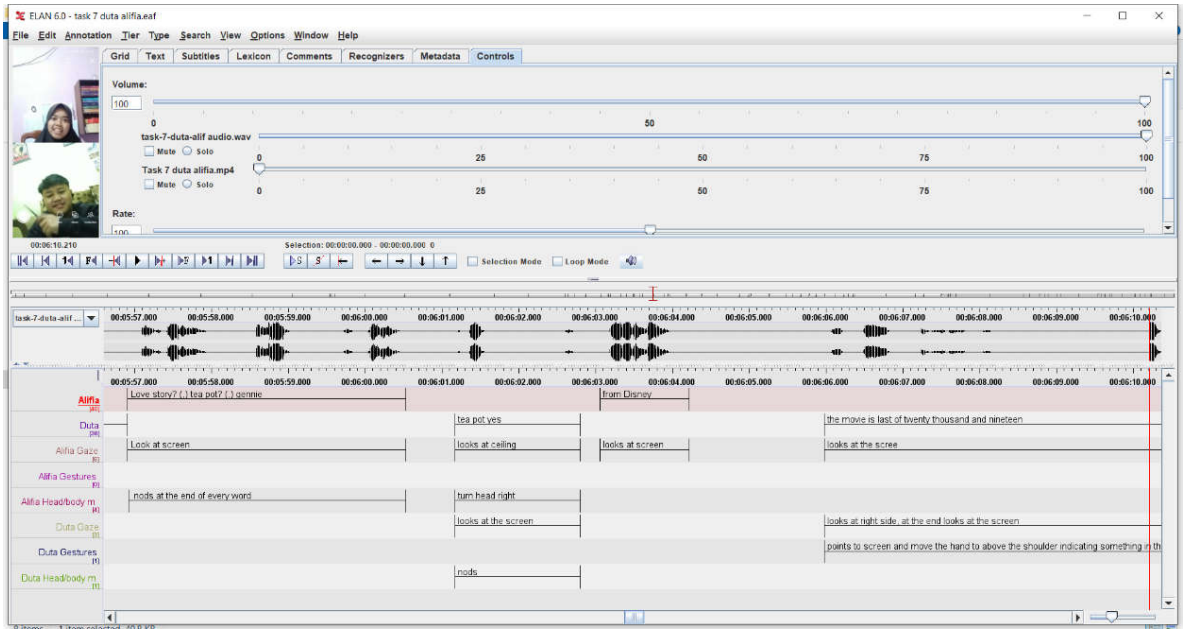
Within the framework of MIA, the human body is viewed as a dependent entity; it cannot interact independently. It negates the concept of brains' and minds' being self-contained, psychological or embodied units operating independently (Norris, 2004). MIA acknowledges that communicative exchange emerges from the synthesis of the body, which includes cognition, emotions and the environment, incorporating all objects contained. Human interaction is generated and comprehended through the multifaceted lens of individual

perceptions. Therefore, the intricate interplay among the body, the environment and perception is the foundation of MIA (Norris, 2004). In this study, I examined some fundamental components of MIA, including mediated action, which is considered a primary unit of analysis.

Furthermore, the site of engagement, a key interaction area and the various communicative modes at play in each site were explored. I also investigated the modal configuration, an intricate interplay of different modes of communication. ELAN (https://archive.mpi.nl/tla/elan), a software program developed by the Max Planck Institute for Psycholinguistics (ELAN, 2023), was used to transcribe the verbatim video recording data. The application allowed me to transcribe the verbal elements along with text annotation to explain the nonverbal elements displayed simultaneously in different layers on a timeline. ELAN transcription enabled researchers to capture mediated actions thoroughly, including verbal and nonverbal cues deployed during online interaction. The transcription was set up with verbal turns and complemented with nonverbal description, and the verbal cues were numbered starting from the beginning of the video, as seen in Figure 3.4.

Figure 3.4

Video Transcription Using ELAN



3.3.3.1 Mediated actions

In this study, *mediated actions* refer to the various modes through which *social actors* communicate with the assistance of *mediational means* (Norris, 2011, 2019). The students who participated in nine CMC task sessions served as social actors since they actively engaged in CMC task performance through Instagram chats. According to Norris (2019), 'human beings always perform social actions' (p. 32); thus, they are social actors. This implies that every action a person takes throughout life, from waking up to communicating and interacting with others, essentially has a social dimension. These actions are social, given their influence, interaction and potential effect on the societal context.

In this context, this means that social actors do 'communication' (an action), and this action is always mediated because it is influenced and shaped by different communicative modes, social practices and cultural contexts. Mediated action in this context can include speaking, writing, gesturing, using images or visual elements and employing other nonverbal cues, such as facial expressions and proxemics, facilitated by mediational means, including physical objects and abstract features (Norris, 2004).

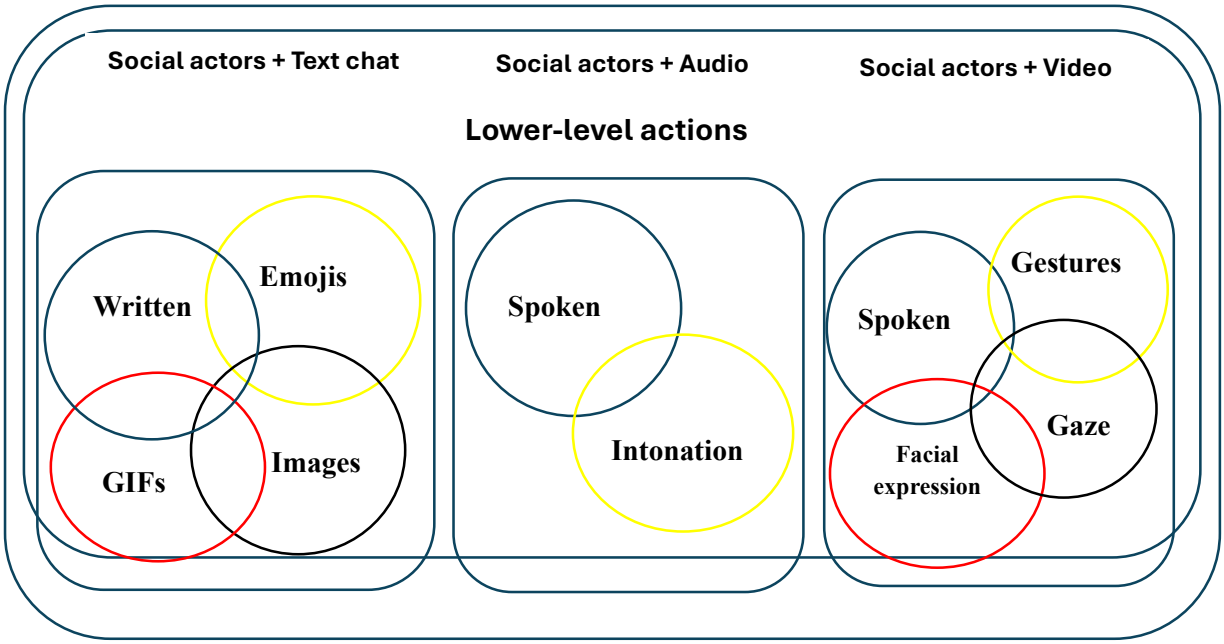
As the second component central to mediated actions, *mediational means* refers to the cultural tools or the elements of the environment, including objects, language, numeracy and even physical details like arms or hands, all of which are used by social actors during interaction (Scollon, 1998). The mediational means vary widely, including language, symbols, technology, objects and even body parts. In this study, the students employed various mediational means of communication available in Instagram chats to complete the tasks (e.g., written and spoken language, gestures, emojis and images). Not all these means, however, were employed simultaneously by students, as each Instagram communication channel has its affordances. Only specific modes are feasible in each channel; for example, students could only use written language, emojis, GIFs and images during text-chat interaction. While spoken language and intonation were present in audio chat interaction, gestures, facial expressions and gaze were only available in the video chat.

Norris (2019) further delineates mediated actions into three distinct categories: lower-level, higher-level and frozen actions. Lower-level actions function as the smallest unit of pragmatic

meaning; ‘pragmatic’ refers to the semiotic resources employed. During the online CMC tasks interaction, lower-level actions could include written, verbal use, gestures in use or facial expressions in use. For example, consider Figure 3.5, where students acting as social actors communicated through Instagram text chat. During this interaction, they might have employed various lower-level actions, such as verbal, written, emojis, GIFs or images.

Figure 3.5

Social Actors' Employment of Mediational Means to Build Lower-Level Actions



Higher-level action refers to the confluence of numerous lower-level actions that create a specific discourse in use (Norris (2019). In an interaction, a higher-level action materialises and emerges from the chains of simultaneous lower-level actions during communication. These higher-level actions often exist in multiple layers. As evidenced in this study, higher-level actions occur in task opening, content discussion and task management. Each higher-level action contributes to a broader, larger-scale action (a communication task executed via Instagram text, audio or video chat). A higher-level action and the apparent chains of lower-level action mutually co-produce each other simultaneously. Since there is no clear-cut higher-level action area, Norris (2019) suggests that the definition of its boundaries depends on the need for research analysis. Hence, I categorised the higher-level action to identify the sub-layers of students' interactions inside the broader interaction in completing the task, adapting the categorisation suggested by Liang (2010) and Hampel and Stickler (2012), such as social interaction (task opening and task closing), on-task negotiation of meaning (negotiation of meaning, negotiation of target words and negotiation of agreement), off-task conversation, technical discussion, task management, error correction and content discussion. Figure 3.6

shows how each higher-level action is linked to and integrated with each other, creating multiple layers of higher-level actions on a larger scale.

Figure 3.6

Layers of Higher-Level Actions

Besides higher- and lower-level actions, a third type of mediated action, which I will briefly mention, is known as *frozen action*. This is an action performed previously by social actors, as entailed by disembodied modes like printed material, the environment's layout or material objects used during interaction (Norris, 2004). Take as an example Amy and Hans's exchange for completing Task 3 ('Guess fictional characters') during the main study. Amy used notes prepared before the conversation for the task began. The students had about 3–5 minutes' preparation time per instruction, during which time they could make notes relevant to the tasks. As Amy discussed the fictional character's name with Hans, she often looked at her notes beside her phone, as seen in Figure 3.7 image A. This behaviour was discernible in her gaze, indicating that she was reading or checking notes. In this context, her notes can be categorised as a frozen action. The note was not embodied with Amy but produced before the interaction began to assist her in completing the task. Another example of a frozen action could be seen in the painting or room decoration in image B, where Sella was discussing guessing fictional

characters' names with Adam in Task 3 during the main study. The painting suggests that Sella performed this task within her room, and it might indicate her personal preferences for France or Paris, given the depiction of the Eiffel Tower, which she had chosen as her background for this interaction. Nevertheless, this study focuses on how students employed nonverbal cues in online communication through their lower- and higher-level actions.

Figure 3.7

Frozen Actions

Image A

Image B

3.3.3.2 Site of engagement

The second element in MIA is the *site of engagement*: the dynamic space where various modes of communication, such as verbal, visual, gestural and spatial, interact and converge in the real-time context in which social practice and mediational means come together, facilitating mediated actions and the creation of meaning (Norris, 2004). The idea of a site of engagement was initially presented by Scollon (1998) and refers to the opportunity created through the interplay of social practices. Furthermore, Norris and Jones (2005) define the engagement site as 'the real-time window opened through the interaction of social practices and mediational means that enables a mediated action to occur' (p. 139). Therefore, a site of engagement represents a real-time moment that allows mediated action to occur, facilitated by social practices and various mediational means.

The engagement site, which serves as the data source for this study, involves nine tasks undertaken in three different Instagram mediational channels (text chat, audio chat and video chat). In each channel, social actors (i.e., the student participants) collaboratively engaged in three tasks in which they used various semiotics resources, whether verbal or nonverbal cues, to exchange ideas during task completion (see Figures 3.8 and 3.9).

Figure 3.8

Site of Engagement via Instagram Text, Audio and Video Chat

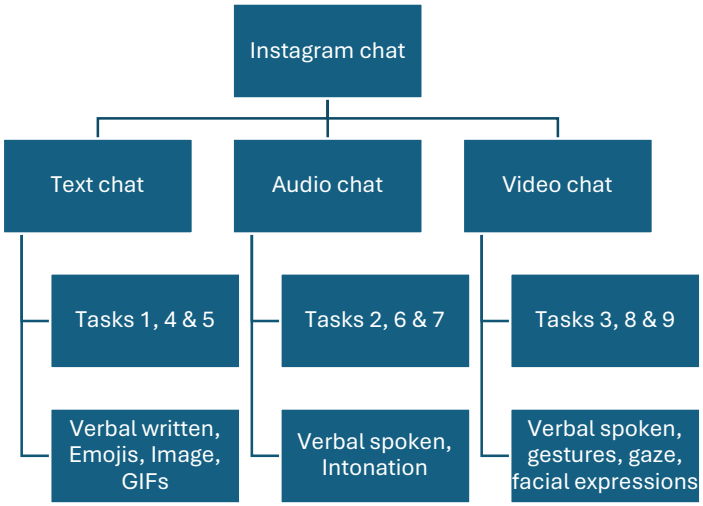
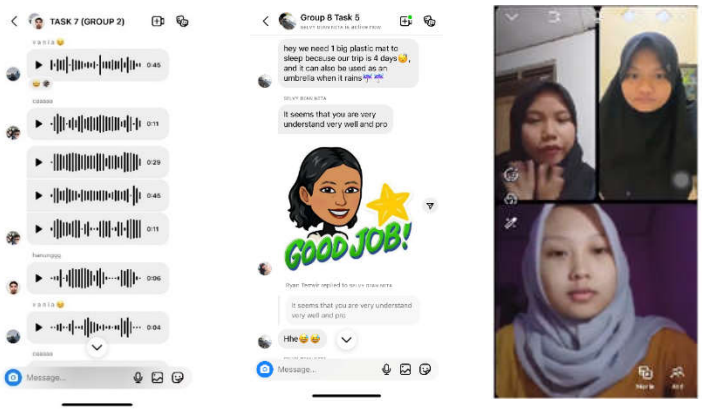


Figure 3.9

Site of Engagement Enacted in Three Instagram Chats



Text chat **Audio chat** **Video chat**

3.3.3.3 Communicative modes and modal configurations

The last components of MIA are *communicative modes* and *modal configuration*. A *communicative mode* is a semiotic resource for creating meaning that is shaped by social and cultural factors (Kress & Van Leeuwen, 2001). In the MIA context, Norris (2004) describes modes as systems of representation with rules and regularities. Various modes offer unique possibilities for conveying meaning, and these potentialities significantly affect the selection of modes in specific instances of communication. For example, verbal language employs words and clauses organised through grammar and syntax to communicate meaning conveyed in written or spoken form. Emojis or GIFs share digital pictorial symbols representing feelings, emotions or ideas (Li & Yang, 2018). Gestures show hand and arm movements manifesting expressive action and enact imagery generated during speaking (McNeill, 2012). Other communicative modes found during students' CMC task interaction through Instagram are summarised in Table 6.1 (see Chapter 6, Section 6.1).

According to Norris and Pirini (2016), modal configurations are the hierarchical arrangement of more minor or lower-level actions within a larger action in the site of engagement. It is necessary to study these smaller actions integral to forming a larger action and observe their interaction when analysing modal configurations. In essence, modal configurations allow us to deconstruct the larger actions to understand better their interplay with smaller actions.

3.4 Summary

The study employed a case study research design with a mixed-methods approach, enabling an intensive and comprehensive analysis of the phenomena through flexible methods and the incorporation of multiple data sources. This approach provided a holistic understanding of students' online interactions on multimodal CMC platform. The research was conducted with business and economic faculty students at a private university in Indonesia who were engaged in multimodal CMC tasks outside the classroom to enhance their English language communication. The data were collected from four sources to understand the students' language use and experiences comprehensively. There were pre-and post-study surveys to track changes in students' perceptions, reflection journals offering deep personal insight into the students' learning trajectories, semi-structured interviews for eliciting students' feelings,

opinions and perspectives related to their learning experiences and chat interaction artifacts that provided concrete on-task evidence of students' engagements and behaviour in language use. These triangulated data sources enabled a thorough investigation of students' experiences in LX learning through CMC tasks via Instagram.

In analysing the collected data, a comprehensive approach integrating both quantitative and qualitative techniques was adopted. Quantitative analysis of survey data involved descriptive statistics and the Wilcoxon signed-rank test to identify significant differences between pre- and post-task perceptions. The qualitative analysis employed a thematic approach to uncover the emergent themes important in illustrating students' experiences and perceptions. This analytical process was systematically organised into three main stages. First was familiarisation with the data and initial coding, where the data were thoroughly reviewed to identify relevant themes and patterns. This process was followed by the second stage, where these patterns across the data were closely examined to identify broader themes. The last stage entailed analysing and interpreting these themes by explaining them with a rich and comprehensive discussion. MIA was used to analyse the students' interaction via Instagram chat. MIA is a framework that examines human communication by considering various modes of expression and their interplay. This framework acknowledges the multiple modes of interaction as building one communication system. The primary goal of our use of MIA was to understand how differing communicative modes, including verbal, visual, gestural and other forms of communication, synergise to shape human interaction and influence their interpretation of a situation or message. These modes contributed uniquely to the overall meaning conveyed in an interaction.

Chapter 4
Quantitative Results

This chapter presents the quantitative data collected from the students' responses to the pre- and post-study surveys. The pre-study survey was administered to gather students' perceptions and beliefs about using multimodal CMC tasks through Instagram to foster English communication before the study. On the other hand, the post-study survey was employed to re-evaluate and investigate their experiences after performing multimodal CMC tasks through Instagram and their preferences for task types, Instagram chat channels and nonverbal-cue features. This investigation provides insight into how students perceive the use of CMC tasks, Instagram chat channels and nonverbal-cue features afforded in text, audio and video chat channels to foster English-language communication. Thus, the chapter addresses the two research questions and one sub-question related to the students' experiences using multimodal CMC tasks through Instagram: 1) How did students perceive completing multimodal CMC tasks via Instagram outside the classroom? 1a) What were students' experiences with completing CMC tasks via Instagram? and 2) What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom?

The following sections discuss the survey results to comprehensively understand the students' experiences and perceptions regarding using CMC tasks through Instagram outside the classroom. This discussion is divided into four key areas. 1) The first section presents an overview of participants' demographic information, including their age, gender and experiences using Instagram, English and nonverbal cues for daily online communication. 2) The second section examines the students' perceptions of the implementation of CMC tasks via Instagram chat and their preferences concerning task types. 3) The third section considers students' perceptions of the benefits of Instagram chats and wished chat channels for learning English through CMC tasks. 4). The last section describes the students' views on using nonverbal cues and their favourite nonverbal cues for completing CMC tasks through Instagram outside the classroom.

4.1 Participants' demographic information

A total of 36 students from the school of economics and business at a private university in Central Java Province, Indonesia, participated in both pre -and post-study surveys. Prior to conducting the study, I explored the characteristics of the participants' background information to provide a better understanding of the context of the study, encompassing aspects like gender, age and experiences with Instagram through the pre-study survey, as shown in Table 4.1. The participants comprised an equal distribution of 50% males (18) and 50% females (18), with ages ranging from 18 to 21 years old (M =18.7 years, SD = 0.91). Regarding the use of Instagram in daily life, most students (47.2%; 17 individuals) had 4 to 6 years of experience using the platform. A smaller group of participants (33.4%; 12 individuals) had more experience, ranging from 6 to 9 years, while the least-experienced group consisted of seven students (19.4%) with 0–3 years of experience using Instagram on average *(*M = 5.4 years*)*.

Table 4.1

Demographic Information of the Participants

Trait	Category	Numbers	Percentage
Gender	Male	18	50.0%
	Female	18	50.0%
Experiences using Instagram	7–9 years	12	33.4%
	4–6 years	17	47.2%
	0–3 years	07	19.4%

I also collected data on students' experiences using English and nonverbal cues for daily online communication. These data were obtained using closed-ended questions based on a four-point Likert scale (never, sometimes, often, always), as shown in Table 4.2. In terms of their experiences using English for daily online communication, most students (69.5%, n = 25) reported using English 'sometimes', followed by 22.2% (n = 8) of students who used it 'often' and a small group (8.3%; n = 3) who 'never' used English for online communication. The mean value for English use was M = 2.1, with a standard deviation of SD = 0.54. Concerning the use of nonverbal cues in daily online communication, most students (58.3%; n = 21) indicated that they often used nonverbal cues. A smaller proportion (27.8%; n = 10) reported using them 'sometimes', and an even smaller group (13.9%; n = 5) claimed to 'always' use nonverbal cues,

with the mean value for the use of nonverbal cues *M=2.9* and *SD = 0.63*. This data showed that most students did not have much experience using English in their daily online communication, with most using it 'sometimes'. This indicates that students are likely to have varying levels of proficiency and comfort when using English in an online context. Most students, however, seemed familiar with incorporating nonverbal cues in their communication, which may influence their engagement in online interaction.

Table 4.2

Participants' Experiences of Using English and Nonverbal Cues for Daily Online Communication

Trait	Category	Frequency	Percentage
Experiences using English for daily online communication *(English use)*	Always	0	0.0%
	Often	08	22.2%
	Sometimes	25	69.5%
	Never	03	08.3%
Experiences using nonverbal cues for daily online communication *(Nonverbal cues use)*	Always	05	13.9%
	Often	21	58.3%
	Sometimes	10	27.8%
	Never	0	0.0%

The cross-tabulation results between students' experiences using Instagram and the mean score of their frequencies of employing English and nonverbal cues in online communication were quite remarkable. Table 4.3 demonstrates a positive correlation between students' Instagram experiences and their use of English and nonverbal cues in online interaction. For students with 1–3 years of Instagram experience, their mean English use was 2.0, while students with 4–6 years and 7–9 years of experience had mean values of 2.1 and 2.3, respectively. Furthermore, students with 1–3 years of Instagram experience had a mean nonverbal use of 2.7 compared to 2.8 for those with 4–6 years of experience and 3.0 for those with 7–9 years of experience. Overall, the results suggest a link between students' experience using Instagram and their use of English and nonverbal cues in online communication. As students' experience with

Instagram increases, the mean values for both their English and their nonverbal use also rise, indicating a higher tendency to use English and nonverbal cues among students with more Instagram experience.

Table 4.3

Cross-tabulation of Instagram Experiences with Use of English and Nonverbal Cues

Experiences using Instagram	English use		Nonverbal cue use	
	Mean	***SD***	***Mean***	***SD***
1–3 years	2.0	0.00	2.7	0.37
4–6 years	2.1	0.60	2.8	0.75
7–9 years	2.3	0.62	3.0	0.60

Further, I employed a chi-square test of independence to examine whether there was a significant relationship between Instagram experience and the use of English and nonverbal cues in online interaction. The relationship between Instagram experience and English use was not statistically significant, as the p-value obtained was higher than 0.05 (X^2 (N = 36) = 4.26, p = .37). Similarly, a chi-square test of independence revealed no significant relationship between Instagram experience and nonverbal use: X^2 (N = 36) = 5.20, p = .26. These results indicate that, although there was a positive relationship between Instagram experience and students' use of English and nonverbal cues, the correlation was not statistically significant.

4.2 The use of CMC tasks via Instagram

This section reports on the survey results that address students' perceptions of using CMC tasks via Instagram outside the classroom. The survey results in Table 4.4 provide insights into these perceptions. Twelve questions were asked about students' perceptions of completing CMC tasks through Instagram. Those questions requested that students rate their agreement on a five-point Likert scale (ranging from 'strongly disagree' to 'strongly agree') before (Pre) and after (Post) the project. Overall, students had a more robust positive experience with the multimodal CMC tasks after completing all the task sessions, as indicated by the mean increase from 4.38 to 4.58 (Q12).

Table 4.4

Students' Perception of Using CMC Tasks Through Instagram

Survey question		*Mean*	*SD*
1. Through Instagram, I actively participated in English-learning tasks (e.g., deciding on a holiday destination with a partner).	Pre	3.86	0.86
	Post	4.22	0.63
2. I felt that working in pairs rather than a group helped me better communicate in English during Instagram tasks.	Pre	3.86	0.83
	Post	3.97	0.69
3. I still tried my best to complete those tasks if I encountered difficulties.	Pre	4.11	0.57
	Post	4.41	0.50
4. I found it was more flexible to do English-learning tasks on Instagram than in a class.	Pre	3.44	0.60
	Post	4.25	0.73
5. I felt that Instagram tasks motivated me to use English more in communication with peers.	Pre	3.94	0.71
	Post	4.11	0.70
6. I felt that tasks on Instagram made me more anxious than in class.	Pre	3.36	0.83
	Post	3.69	0.78
7. I enjoyed completing Instagram tasks with my peers.	Pre	4.03	0.69
	Post	4.36	0.63
8. Doing Instagram tasks enhanced my English communication skills.	Pre	4.14	0.54
	Post	4.31	0.62
9. Doing Instagram tasks encouraged me to communicate more in English.	Pre	4.08	0.60
	Post	4.08	0.69
10. Doing Instagram tasks improved my knowledge about the functions of various features in my smartphone for better communication.	Pre	4.22	0.59
	Post	4.33	0.67
11. Doing Instagram tasks made me pay more attention to the potential of social media for the English-learning process.	Pre	4.17	0.50
	Post	4.22	0.54
12. Overall, I had a strong positive experience with this project.	Pre	4.39	0.54
	Post	4.58	0.55

The students' general positive experience was further corroborated by the results of the 12 survey questions shown in Table 4.4. The results illustrated that the students developed a favourable perception of the study after its completion, as seen in the increased mean score for

questions 1, 3 and 6, representing their motivation to engage in CMC tasks. This was supported by the decreased anxiety levels experienced by students when completing tasks on Instagram. The highest growth in mean score was observed for Question 4, indicating that students enjoyed completing CMC tasks through Instagram due to its flexibility. The enhancement of the mean score in Question 7 further corroborated this notion.

Question 5 revealed that students perceived Instagram tasks as motivating them to use English more frequently when communicating with peers, with a slight increase from pre-study (3.94) to post-study (4.11). These data suggest that students were more willing to communicate in English with their friends than with others. Question 9, however, which inquired about whether doing Instagram tasks encouraged them to communicate more extensively in English, yielded identical mean scores for both pre-and post-study (4.08). This implies that accomplishing tasks on Instagram did not promote the use of English for students' general online communication. Consequently, it can be inferred that students' willingness to communicate in English was confined to interactions with friends and did not extend to a broader communication context. Questions 10 and 11 exhibited a modest rise in the mean score, indicating that students perceived the completion of Instagram tasks as instrumental in fostering their digital literacy. This improvement in digital literacy was attributed to an enhanced understanding of the functionalities of various smartphone features and the awareness of using social media for communication in English.

To extend the investigation, I performed a Wilcoxson signed-rank test to examine whether there was a potentially statistically significant difference in students' perceptions and experiences between pre- and post-study. According to Albers (2017), the Wilcoxon signed-rank test is a non-parametric test designed to perform repeated measurements of a single sample and to determine the presence of a statistically significant difference between these measurements. This test was employed as a substitution for paired t-tests, considering that the data failed to reach the requirement indicated by the normality test results. The results of the Shapiro-Wilk test for post-study and pre-study were $W = 0.90$, $p = 0.003$ and $W = 0.95$, $p = 0.109$, respectively. This indicates that the data were not normally distributed due to one of the p-values' (post-study $p = 0.003$) being smaller than 0.05 ($p < .05$).

The Wilcoxon signed-rank test results regarding students' perception of using CMC tasks through Instagram indicated a significant difference, as shown in Table 4.5. The post-study mean score was higher ($M = 4.21$) than the pre-study score ($M = 3.96$), indicating that students perceived Instagram as an effective tool for CMC tasks to foster English communication. The result revealed a significant difference in students' perceptions of the CMC tasks that promote English communication ($z = –2.88$, $p = .004$). The results also demonstrate a statistically significant change in students' perceptions before and after the study, suggesting that using CMC tasks through Instagram outside the classroom positively influenced their perception of the benefits of using CMC tasks for fostering English communication. This evidence highlights the practicality of incorporating CMC tasks for language learning outside the classroom. It contributes to students' growing motivation, willingness to communicate and digital literacy, as well as their perceived growth in English communicative competence.

Table 4.5

Wilcoxon Signed-Rank Test on Students' Perception of Using CMC Tasks Via Instagram

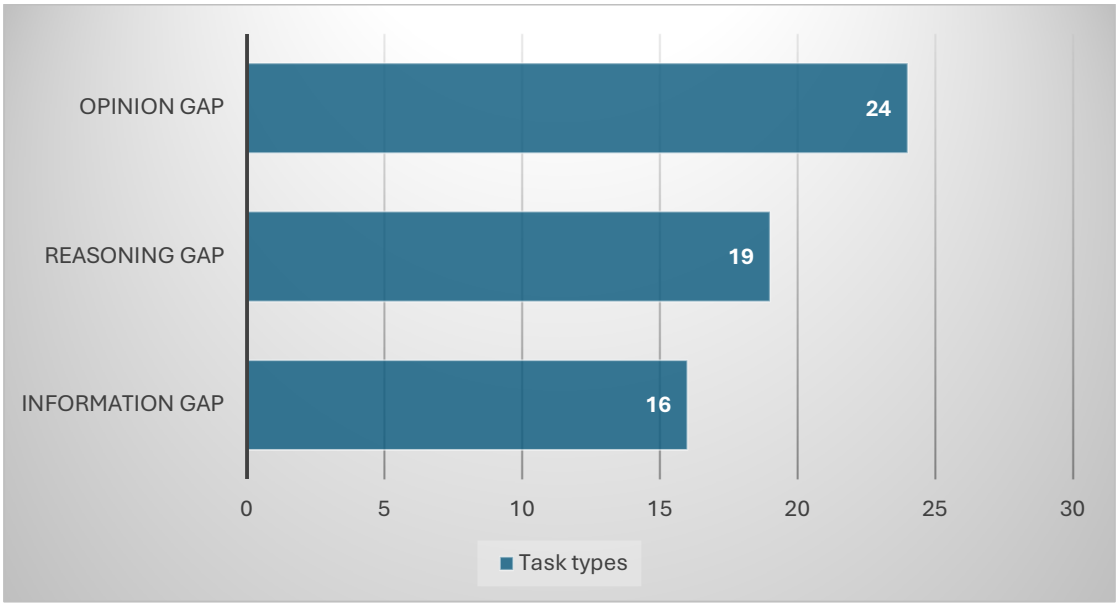
Use of CMC Tasks Through Instagram	**n**	***Mean***	***SD***	***z***	***p***
Pre-study	36	3.96	0.37	–2.88	.004*
Post-study	36	4.21	0.40		

Note. *$p < .05$.

Figure 4.1 illustrates the students' preferences for three task types: the opinion gap, reasoning gap and information gap. Concerning frequency and percentage, the opinion gap emerges as the most prevalent task type, encompassing 24 of 36 students (66.7%). Subsequently, the reasoning gap ranks as the second most predominant task type, comprising 19 students (52.8%). By contrast, the information gap represents the least common task type, with 16 students (44.4%). The data suggest that the opinion gap task was the most favoured, followed by the reasoning gap and, finally, the information gap task.

Figure 4.1

Students' Preferences for Task Types



To investigate the possible association between students' task preferences and their use of English in daily online communication, a cross-tabulation of both variables was performed and depicted in Table 4.6. An examination of the outcomes disclosed that students who frequently employed English for online communication tended to favour information-gap tasks over reasoning- and opinion-gap tasks. This inclination was reflected in the higher mean score of English use for those who preferred the information-gap task ($M = 2.4$) compared to those who favoured the reasoning-gap and opinion-gap tasks ($M = 2.1$). The findings suggest that students who were frequent users of English tended to prefer the option of information-gap tasks.

Table 4.6

Cross-tabulation Between Task Types and the Use of English and Nonverbal Cues

Preferred Task Types	**English Use**		**Nonverbal Cue Use**	
	Mean	***SD***	***Mean***	***SD***
Opinion gap	2.1	0.50	3.0	0.58
Reasoning gap	2.1	0.60	2.9	0.62
Information gap	2.4	0.61	2.9	0.77

Meanwhile, the analysis of the relationship between students' preferences for task types and their use of nonverbal cues suggests that those who frequently employed nonverbal cues in online communication managed to choose the opinion-gap task over the reasoning- and information-gap tasks. This trend was evidenced by the mean score of 3.0 for the opinion-gap task and 2.9 for the reasoning- and information-gap tasks. These findings imply that students who frequently employed nonverbal cues in online communication strongly prefer the opinion-gap task.

In addition, I conducted a chi-square test of independence to examine whether there was a significant relationship between students' task preference and their use of English and nonverbal cues in online interactions. The analysis revealed that the association between students' task preference and English use was not statistically significant, as the p-value obtained was higher than 0.05 (X^2 (N = 36) = 14.76, p = .25). Similarly, a chi-square test of independence between task preference and nonverbal use revealed no significant relationship: X^2 (N = 36) = 20.42, p = .06. The results indicate that students' selection of tasks is not closely related to their use of English or nonverbal cues during online communication.

4.3 The use of nonverbal cues for fostering English communication

Table 4.7 presents students' responses to the surveys related to the use of nonverbal cues for fostering English communication. Overall, the results indicate that there was positive change in students' experiences completing CMC tasks via Instagram, especially in their perceptions of using nonverbal cues to facilitate effective English communication after the study, with an increase in mean scores ranging from 0.08 to 0.58. The data further revealed a growing enjoyment of using nonverbal cues to support meaningful communication in completing CMC tasks through Instagram, as indicated by the improved mean scores for questions 13, 15 and 16. Students reported that incorporating verbal and nonverbal cues made communication in English more flexible and comfortable, leading to the enjoyment of the communication experience. Moreover, students' perception related to the use of nonverbal cues to aid English communication when they had a limited vocabulary rose from pre- (4.11) to post- (4.51) study. It signified that nonverbal cues provided an enjoyable way for students to maintain communication, even with a limited vocabulary.

Furthermore, the results illustrated that students' awareness of the importance of using various modes (verbal and nonverbal) in their English language-learning process grew from a pre-study mean score of 3.94 to a post-study mean score of 4.54. This means that students appreciated the critical value of combining nonverbal and verbal cues to support their English learning.

Table 4.7

Students' Perception of Using Nonverbal Cues

Survey questions		*Mean*	*SD*
13. I found it more flexible to communicate in English using various modes (verbal and nonverbal) than to use only verbal modes.	Pre	4.19	0.66
	Post	4.36	0.63
14. I felt that using nonverbal features encouraged me to communicate better in English when I did not know the words.	Pre	4.11	0.57
	Post	4.51	0.60
15. I enjoyed using nonverbal features (e.g., emojis, GIFs, images, gestures, gaze) to communicate in English.	Pre	4.06	0.67
	Post	4.14	0.68
16. I felt more comfortable communicating in English using a combination of verbal and nonverbal features than using only one feature.	Pre	4.05	0.62
	Post	4.38	0.68
17. Doing Instagram tasks made me pay more attention to using various modes (verbal and nonverbal) in my English-learning process.	Pre	3.94	0.71
	Post	4.52	0.60

Table 4.8 reports the results of the Wilcoxson signed-rank test conducted to examine the changes in students' perceptions of using nonverbal-cue features to facilitate English communication before and after the study. The analysis revealed an increase between the mean scores of pre- and post-study from $M = 4.07$ to $M = 4.38$. This difference was found to be statistically significant ($z = –2.89$, $p = .004$). It means that students appreciated the use of nonverbal-cue features to enhance their English communication.

Table 4.8

Wilcoxon Signed-Rank Test of Students' Perception of Using Nonverbal Cues

Use of Nonverbal Cues	n	Median	*SD*	*z*	*p*
Pre-study	36	4.07	0.44	–2.89	.004*
Post-study	36	4.38	0.45		

Note. *$p < .05$.

The results of students' preferences for types of nonverbal cues for online communication reveal a pattern, as shown in Figure 4.2. Emojis emerged as the most popular form of nonverbal communication, with 61% of students integrating them into their messages. The widespread use of emojis might be attributed to the versatility of emojis, which enable users to express emotions, reaction and thoughts briefly, transcending language barriers and enhancing overall communication. Images also played a vital role in communication, with 52.8% of students using them to visualise their thoughts or ideas. Images often communicated complex ideas and feelings more effectively than words alone (see Chapter 5, Section 5.3). Around 50% of students said that using gestures, gaze and facial expressions, such as hand movements and head nods, enabled them to provide additional context to their verbal communication.

Similarly, gaze directions and facial expressions might convey a person's emotion or level of engagement, allowing for a deeper understanding of their intention or feelings. Almost 44.4% of students acknowledged that intonation, such as the pitch, tone and rhythm of speech, could convey subtle nuances in meaning and emphasise important points, adding depth and richness to verbal communication. Finally, GIFs were used by 13.9% of students for CMC tasks on Instagram. These short looping animations offer a fun and creative way to express emotions, reactions or humour.

Figure 4.2

Nonverbal Cue Preferences

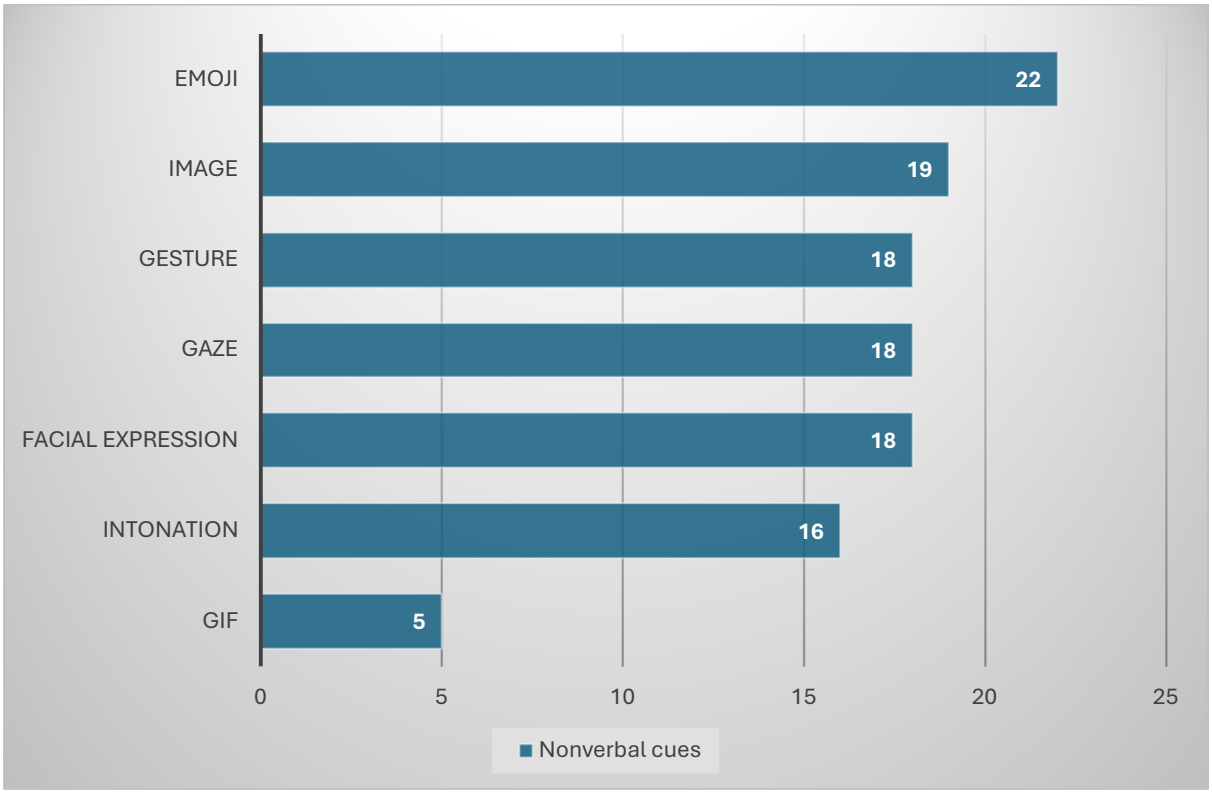


Table 4.9 shows the students' preferences for various types of nonverbal cues in relation to the use of English and nonverbal cues in daily online communication. The results revealed that students who frequently used English ($M = 2.4$) tended to prefer using GIFs as nonverbal cues, while those who used English less frequently ($M = 2.3$) preferred gestures, facial expressions, gaze and intonation. In addition, emojis and images were more favourable for students who least-frequently used English for daily online communication, with mean scores of $M = 2.2$ and 2.1, respectively. The results indicate that students favoured GIFs among other types of nonverbal cues used English for daily online communication, followed by gestures, facial expressions, gaze, intonation and the last was emojis and images.

Furthermore, the data indicate that students favoured GIFs using nonverbal cues for daily online communication more frequently, with a mean score of $M = 3.4$. Conversely, those students who selected gestures, facial expressions, gaze and intonation less often used nonverbal cues for communication with a mean score of $M = 3.0$. Students who chose emojis

and images used nonverbal cues the least, with mean scores of $M = 2.9$ and 2.8, respectively. This suggests that GIFs were most favoured by students who frequently used nonverbal cues for daily online communication, followed by gestures, facial expressions, gaze, intonation and finally emojis and images. Overall, there appears to be a similar pattern between the students' preferences for nonverbal cue types and the frequency of English and nonverbal cues they used.

Table 4.9

Cross-tabulation Between Preferred Nonverbal Cue Types and the Use of English and Nonverbal Cues

Preferred Nonverbal Cue Types	**English Use**		**Nonverbal Cue Use**	
	Mean	***SD***	**Mean**	***SD***
Emoji	2.2	0.58	2.9	0.61
Image	2.1	0.50	2.8	0.68
Gesture	2.3	0.57	3.0	0.59
Gaze	2.3	0.57	3.0	0.63
Facial Expression	2.3	0.57	3.0	0.63
Intonation	2.3	0.60	3.0	0.63
GIF	2.4	0.54	3.4	0.54

To investigate whether there was a significant relationship between students' preference for nonverbal cue types and their use of English and nonverbal cues in online interaction, a chi-square test of independence was performed. The results showed that the association between the preferred nonverbal cue and English use was not statistically significant, as the p-value obtained was higher than 0.05 (X^2 ($N = 36$) = 42.70, $p = .35$). Similarly, the relationship between participants' preferred nonverbal cue and the frequency of their use of nonverbal cues was also found not to be statistically significant: X^2 ($N = 36$) = 49.45, $p = .14$. These results point to there being a similar pattern of tendency between the preferred nonverbal cue types and the frequency of English and nonverbal cues used, but the correlation was not statistically significant.

4.4 The affordances of Instagram chat features for fostering English communication

This section will respond to the findings of the survey questions related the affordance of Instagram chat features for fostering English communication, as shown in Table 4.10. The results show that students enjoyed using various Instagram channels, such as text, audio and video, for English communication. The mean score increased from 3.78 in the pre-study to 4.36 in the post-study survey (Question 13). This progression indicates an overall positive change in students' perceptions of using Instagram chat channels to communicate in English.

Table 4.10

Students' Perception of Using Various Instagram Chats and Their Features

Survey Question		*Mean*	*SD*
18. I enjoyed using Instagram channels (e.g., text, voice, video chat) to communicate in English.	Pre	3.78	0.63
	Post	4.36	0.68
19. Using various channels (e.g., text, voice, video) to communicate in English was essential.	Pre	4.08	0.69
	Post	4.39	0.59
20. The multimodal text features of Instagram (e.g., emojis, GIFs, images) were valuable for English communication.	Pre	3.61	0.54
	Post	4.14	0.68
21. Using gestures and gazing through Instagram video chat were valuable for English communication.	Pre	4.11	0.57
	Post	4.33	0.58

Consistent with the findings from Question 18, students similarly appreciated the importance of employing various Instagram chat channels for English communication (Question 19). The mean score rose from 4.08 in the pre-study to 4.39 in the post-study survey; it can be inferred that students gradually perceived the use of diverse channels to facilitate effective English communication. This increased appreciation of the value of multimodal chat channels when communicating in English reinforces the potential benefits of integrating Instagram chat into the language-learning process.

Finally, questions 20 and 21 explored students' perception of the value of the multimodal features in the text-chat and video-chat channels, such as emojis, GIFs, images, gestures and gaze, for online English communication. The mean score increased from 3.61 to 4.14 and from

4.11 to 4.33 for text and video, respectively. This result demonstrates a positive shift in students' perceptions of using emojis, GIFs and images in text chat, and gestures and gaze in video chat, for English communication through Instagram. Overall, students perceived that using various Instagram chats facilitated better English communication, as evidenced by the increase of the mean score for each question, which ranged moderately from 0.22 to 0.58.

Table 4.11 displays the results of the Wilcoxson signed-rank test of the benefit of text, audio and video chat, as well as the multimodal features offered in text and video chat before and after the study. The mean score of the post-study survey was higher (M = 4.30) compared to the pre-study (M = 3.89). The results indicated a significant difference in the students' perceptions of viewing text, audio and video chat for fostering English communication before and after the study (z = –3.23, p = .001). This means that students confirmed that multimodal Instagram chat provided affordances for better communication in English.

Table 4.11

Wilcoxon Signed-Rank Test of Students' Perception of Instagram Chats Before and After the Study

Use of Instagram Chats	**n**	***Mean***	***SD***	***z***	***p***
Pre-study	36	3.89	0.44	–3.23	.001**
Post-study	36	4.30	0.51		

Note. **p < .001.

In terms of students' preferences for Instagram chat channels, Figure 4.3 illustrates the number of students who preferred each chat channel. The most popular Instagram chat channel among the students was text chat, with 23 students (63%) expressing a preference for this mode of communication. This suggests that most students find text chat a convenient and accessible means of communication on Instagram. The second-most preferred Instagram chat channel was video chat, with 17 students (47%) indicating a preference for this mode. Although not as popular as text chat, video chat still garnered a considerable proportion of students' preferences, meaning that many students found the visualisation and interactivity aspects of video chat valuable. Lastly, the audio chat was the least-preferred Instagram channel among

the students, with only 16 students (44%) preferring it. This means that, among Instagram chat channels, audio chat was not considered the ideal medium for fostering English-language learning. Despite being the least-popular option, audio chat still attracted a sizable proportion of student preferences, suggesting that some students appreciate the convenience of voice communication without the visual aspect. The findings revealed that text chat was the most preferred Instagram channel among the students, followed by video and audio. Ease of use, accessibility and personal communication styles might influence these preferences.

Figure 4.3

Students' Preferred Instagram Channel

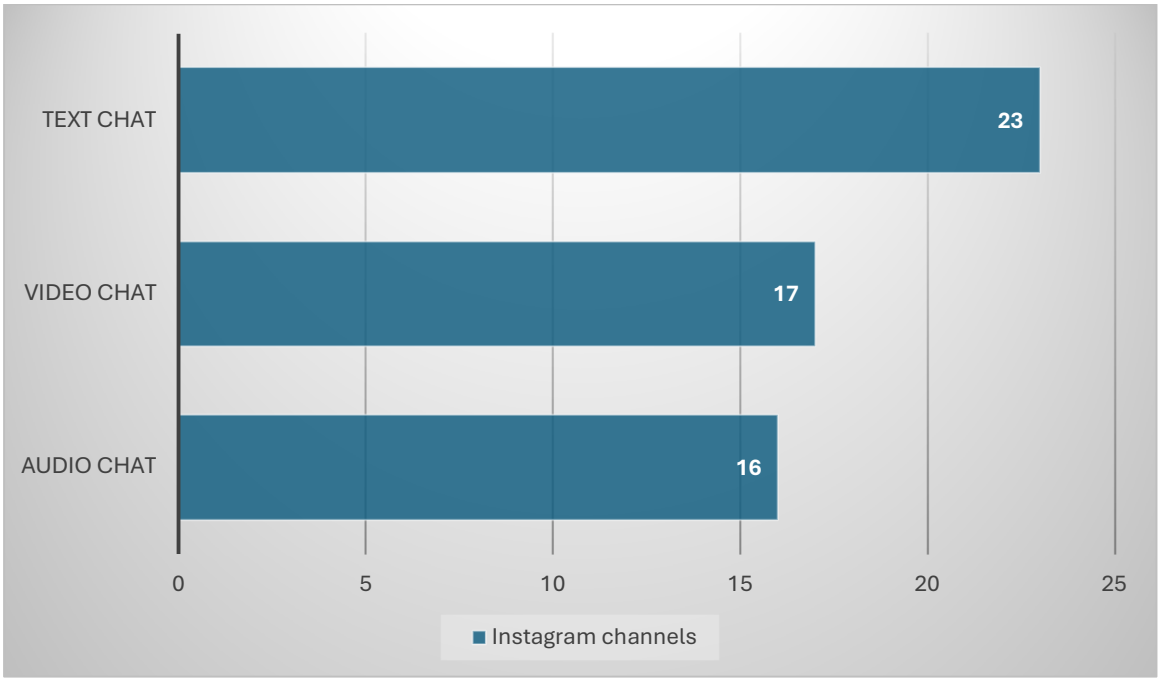
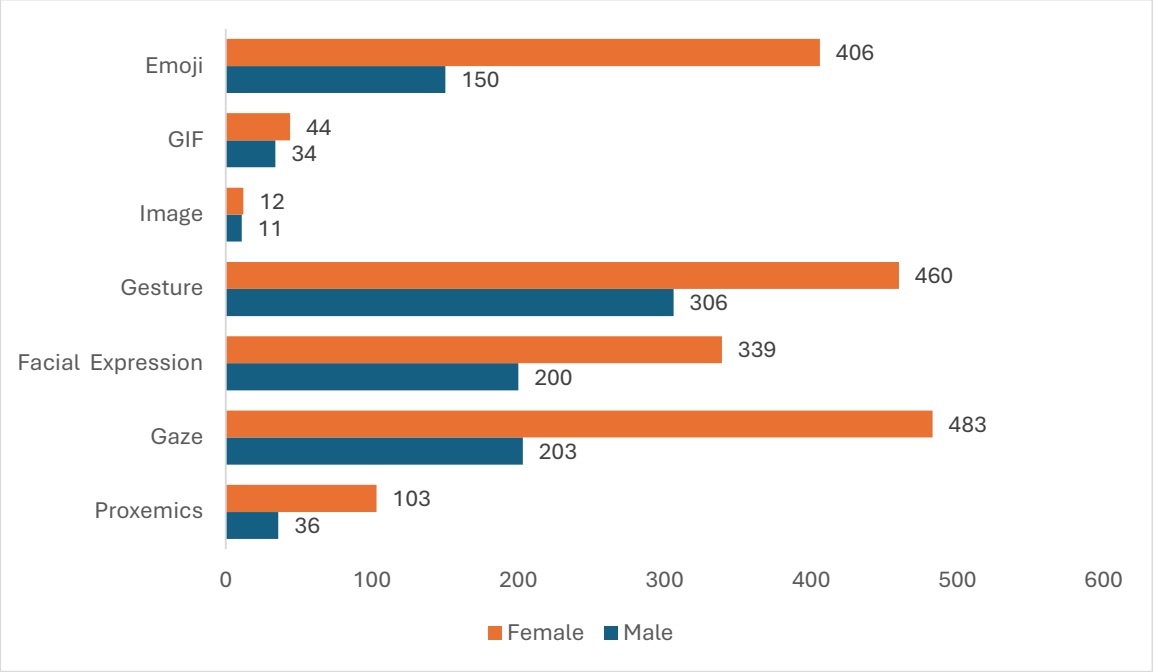


Figure 4.4 illustrates the frequency of various nonverbal cues used by male and female students during task interaction, including emojis, GIFs, images, gestures, facial expressions, gaze and proxemics. The findings suggest that female students generally used more nonverbal cues than males during task interactions. The difference was notable for emojis, gestures and gaze, where female students' usage significantly exceeded that of their male counterparts, with 406, 460, and 483 instances, respectively, compared to males' 150, 306 and 203 instances. In contrast, both genders employed GIFs and images less frequently, with only slight differences between

them – females used GIFS and images 44 and 12 times, respectively, while males used them 34 and 11 times. These findings indicated that female students preferred to communicate with digital nonverbal cues more than male students, which aligned with Koch et al. (2022), who found that women used emojis more frequently compared with men.

Figure 4.4

The Use of Nonverbal Cues During Task Interactions Based on Gender



Concerning the potential relationship between Instagram chat modalities and the use of English and nonverbal cues, audio-chat users exhibited a higher frequency of English use, as confirmed by a mean score of 2.3 (see Table 4.12). By contrast, video- and text-chat users displayed lower levels of English usage, with a mean score of 2.2 and 2.0, respectively. With respect to nonverbal cue use, students who preferred video chat revealed a greater frequency of employing nonverbal cues, with a mean score of 3.0 compared to a mean score of 2.9 and 2.8 for text chat and audio chat, respectively. These results indicated no linear relationship between students' preference for chat channels and their use of English and nonverbal cues. Although audio-chat users demonstrated the highest frequency of English use, they exhibited the lowest frequency of nonverbal cue use.

Table 4.12

Cross-tabulation Between Instagram Chats and the Use of English and Nonverbal Cues

Preferred Instagram Channel	English Use		Nonverbal Cue Use	
	Mean	***SD***	***Mean***	***SD***
Text chat	2.0	0.59	2.9	0.66
Audio chat	2.3	0.44	2.8	0.54
Video chat	2.2	0.56	3.0	0.65

To determine whether there was a significant relationship between students' favourite Instagram channels and their use of English in online interaction, a chi-square test of independence was employed. The association between students' favourite Instagram channels and English use was not statistically significant, as the p-value obtained was higher than 0.05 (X^2 (N = 36) = 4.26, p = .37).

In a similar vein, another chi-square test of independence was conducted to assess the relationship between students' favourite Instagram channels and their nonverbal use in online communication. The results of this test also proved no significant association between the two variables: X^2 (N = 36) = 5.20, p = .26. These results indicate that students preferred Instagram chat channels, such as text chat, audio chat and video chat, did not significantly influence the frequency of their use of English and nonverbal cues in online interaction.

4.5 Summary

The quantitative results from the pre-and post-study surveys involving 36 students show key findings for this study. Regarding demographic information, all students had been using Instagram for 0–9 years, with most having 4–6 years' experience using it. Regarding their experiences of using English for daily online communication, most students reported occasionally employing English. Furthermore, students indicated that they often used nonverbal cues for their everyday online communication.

In addition, most students reported positive experiences when engaging in multimodal CMC tasks through Instagram for learning the English language outside the classroom setting. Students responded positively to the questions regarding the use of CMC tasks on Instagram, including their motivation to learn English through participation and engagement in the CMC tasks facilitated by the platform, their willingness to communicate using the target language with peers and the enjoyment they derived from completing CMC tasks on Instagram. In addition, the students acknowledged the perceived affordances of Instagram chat features for fostering English language communication; as a result, they were more aware of the positive role of Instagram chats and nonverbal-cue features offered within each chat channel.

Students also valued the importance of nonverbal cues as a vital resource to foster English communication. They concurred that nonverbal cues enabled them to communicate more effectively in English when they lacked the appropriate vocabulary to do so. Furthermore, they recognised that nonverbal cues, such as emojis, images, GIFs, gestures, facial expressions and gazes, contributed to enjoyment and engagement while completing CMC tasks through Instagram. The ease and flexibility of transitioning between or incorporating verbal and nonverbal cues influenced the students' positive perceptions regarding using nonverbal cues in online English communication.

In terms of students' predilections for task types, Instagram chat channels and nonverbal use, it can be concluded that the opinion-gap task was students' preferred task for promoting online English online practices, preferred over the reasoning-gap and information-gap tasks. Text chat was more popular than video or audio chat for fostering English-language practice among students. Emojis were the preferred resource to promote enhancing online English communication over images, gestures, gaze, facial expressions, intonation and GIFs. Students who frequently used English for online communication demonstrated a preference for information-gap tasks, audio chat and GIFs to foster English online practices. Finally, students who consistently used nonverbal cues in online communication chose opinion-gap tasks, video chat and GIFs to support online English communication.

Chapter 5
Qualitative Findings

This chapter explains the qualitative findings from students' reflection journals and semi-structured interviews. As outlined in Chapter 3, students wrote their reflections in an online learning diary after completing each task. Semi-structured interviews were conducted with 12 students individually at the end of the study. These qualitative data were necessary to complement and provide further insight into the responses obtained from the surveys. Below are the findings addressing the research questions (RQs): 1) How did students perceive completing multimodal CMC tasks via Instagram outside the classroom? 1a) What were students' experiences with completing CMC tasks via Instagram? 2) What affordances did Instagram's chat features offer students to accomplish CMC tasks outside the classroom?

5.1 RQ1: How did students perceive completing multimodal CMC tasks via Instagram outside the classroom?

Chapter 3 (Methodology) explained that performing CMC tasks via Instagram was implemented outside the regular classroom setting as a supplementary learning activity. This initiative addressed students' limited time and opportunity to actively practise the target language within a traditional classroom, particularly in Indonesian schooling. In the context of Indonesian students, using Instagram chat for CMC tasks in English-language learning is a relatively new approach. Therefore, exploring how students experience and perceive this instructional strategy is essential. This research question aims to investigate several key aspects, including students' perceptions of completing CMC tasks through Instagram, the effect of such activities on English-language learning and the challenges the students may encounter while completing these tasks outside the traditional classroom environment.

Through thematic analysis of learning diaries and one-on-one interviews, five major themes emerged in response to this research questions: 1) CMC tasks boosted students' task motivation and engagement, 2) CMC tasks fostered learners' willingness to communicate in English, 3) CMC tasks were enjoyable and fun, 4) CMC tasks are perceived to expand digital literacy and 5) The challenges associated with using CMC tasks through Instagram were identified.

5.1.1 CMC tasks boosted task motivation and engagement

The comprehensive analysis of the verbatim interviews and journal reflection entries revealed student motivation and engagement boosted when practising multimodal CMC tasks via Instagram chats. Many students expressed enthusiasm towards their English-language learning tasks, attributing this to their belief that CMC tasks on Instagram would help them achieve their English-language learning goals, particularly in developing communication skills. As evidenced by Chika's reflection from her journal entry, 'CMC tasks developed my English communication skills and encouraged me to be more active in learning English and mingle with others' (Journal entry, 08/01/2022). Revan similarly echoed this sentiment of achieving learning goals through CMC tasks: 'I felt changes and developments in my communication skills, and I was also motivated and enthusiastic to learn to communicate in English' (Journal entry, 10/01/2022). Another student, Panji, also asserted that, after practising CMC tasks, 'I felt that there was an increase in my ability to communicate in English; thus, I was motivated to learn English more' (Journal entry, 12/02/2022).

The sense of accomplishing a goal is crucial in instilling motivation to participate actively in a task (Kormos & Wilby, 2019). This feeling of achievement, whether large or small, can significantly boost students' enthusiasm and commitment, sparking a determination to persevere and succeed in the additional language-learning context. According to Kormos and Wilby (2019), students' motivation to pursue their goals is often categorised into two fundamental orientations: mastery and performance goals. *Mastery goals* underline the importance of skill development; this drive comes from within the students to master or improve a skill set. On the other hand, *performance goals* focus on receiving recognition from others or completing a task successfully with minimal effort and are often externally driven.

Concerning mastery goals, students perceived that performing CMC tasks on Instagram 'trained' them in their communication skills. This perception was observed when the students performed Task 4 ('Choosing a tourism destination'). In this task, students were required to share their thoughts about their favourite tourist attractions or objects and convince their partners to agree with them. This task allowed them to convince their partners and demonstrate their ability to communicate complex ideas. It also served to sharpen their argumentation skills

effectively. As students found themselves successfully navigating this task and able to master vital communication skills, such as giving opinions and providing reasons, they felt a sense of achievement and heightened motivation. As Ahsan wrote,

> The most striking thing was when I needed to explain why I chose that city or country for vacation. I trained to provide a reasonable opinion in English so that the other person was convinced and agreed with my chosen country or city. (Journal entry, 19/12/2021)

Another example of how perceived mastery can fuel task motivation and engagement was Bella's reflection. She found herself greatly motivated by her growing ability to articulate her thoughts and perspectives in English using spoken language. Bella saw each successful expression of her opinions and viewpoints as a clear sign of her mastery of using the language. This sense of progress was not only a confirmation of her developing skills but also a testament to her potential for further improvement, as she reflected after finishing Task 6 ('Defining the meaning of a best friend'). Task 6 was conducted through audio chat, where students needed to share with their partners an explanation to support their definition. Bella reflected that 'I was motivated because I could define and share the meaning of friendship according to my thoughts and point of view' through spoken language (Journal entry, 30/12/2021). Expressing arguments and thoughts through spoken English represents a significant accomplishment for Indonesian students, as mastering spoken language can present substantial challenges. According to Abrar et al. (2018), speaking is often regarded as the most challenging skill by Indonesian students for several reasons, including the limitations of their vocabulary inventory, psychological factors and learning conditions. By performing CMC tasks, students directly practise communicating in English with their peers synchronously, which potentially helps them master communicative skills. This hands-on approach ensures that students can apply the language in real time, reinforcing the learning process and facilitating mastery. Dao et al. (2023) further emphasise the importance of synchronous communication, which enables students to practise their communicative skills because they can use their target language intensively to negotiate meaning in the social context. During the COVID-19 pandemic, traditional FTF learning was disrupted, reducing opportunities for students to socialise with their peers in person. Synchronous CMC tasks via Instagram, however, could help students continue their language learning and practise though online channels.

The second objective that motivated students to participate in CMC tasks was meeting their performance goals, which are primarily concerned with others' judgment of their ability (Kormos & Wilby, 2019). In this study, students were randomly assigned to pairs or groups with partners at varying English-language proficiency levels for task completion. This diversity in the group composition had exciting implications for motivation. For some students, the presence of a more competent partner acted as a motivational catalyst to 'push' them to work harder. The prospect of being judged by their peers, particularly more-proficient ones, increased their motivation to learn English and bridge the gap. These students used the perceived gap in their abilities as an incentive to transform their fear of negative judgment into a constructive drive to enhance their English skills. As Bevy expressed,

> Sometimes, I found that, when I discussed with a more proficient partner, I was able to learn from them. On the other hand, I also felt inadequate, but it motivated me to learn more to keep up with their English. (Interview, 19/02/2022)

Similarly, Anny and Altaf were motivated to engage in the tasks and work harder to learn English due to their desire to emulate other students, such as Ahsan, Fascia, Sari and Sella. As Anny expressed in her journal, 'I realised my friends were better at English. It made me want to improve my English' (Journal entry, 08/01/2022). Likewise, when paired with a more skilled partner, Altaf was motivated to improve his English. He expressed the following in an interview:

> When I was paired with a more proficient partner, I learned a lot, sir. I initially felt this amazement, like, 'Wow, they're outstanding'. Then I had a motivation inside my mind that I wanted to be able to do that. (Interview, 21/02/2022)

Performance goals were particularly notable in tasks like 'Guess fictional characters' (Task 3), 'Reorganise movie clips' (Task 8) and 'Construct a story from random pictures' (Task 9). These tasks were conducted via video chat, and students were required to complete the information gap. Students also could communicate with their partners, whom they had never met, through audio-visual media. The unique nature of these tasks allowed the students to establish performance goals rooted in their concept of an 'Ideal L2 self' (Dörnyei, 2019). This concept relates to the student's internal desire to reduce the discrepancy between their actual communication skills and their intended skills, to match their partner, who was assumed to be

an excellent English speaker (Dörnyei & Chan, 2013). It seemed the students in this study often imagined their partners as ideal English speakers. Driven by this internal desire, they aimed to reduce the gap between their current communication skills and their envisioned optimal proficiency level.

Students' task motivation was a powerful engine driving their engagement in the learning process. It also enhanced their willingness to invest additional time and effort into learning English. A noteworthy effect of this heightened motivation was the development of their self-determination for their language learning. Papi and Hiver (2022) define *self-determination* as the degree to which learners make choices and regulate their learning process based on their interests, goals and values. A vivid example of this is the set of the actions taken by Anny, Yuliana, Hans and Sella. Their proactive approach demonstrated strong motivation and engagement with the CMC tasks. In Anny's case, for example, she invested more time and effort in learning English by joining an online English learning channel via Telegram, a messenger application, after performing the CMC tasks. She made the autonomous decision to join this channel even without any instructions or requirements to do so. She joined the *'Jago Bahasa'* Telegram channel (www.Jagobahasa.com) offering online English courses based in Kediri, East Java, Indonesia for more exposure and input to support her CMC task performance. As Anny said:

> I initially planned to register for English classes but came across the '*Jago Bahasa*', a Telegram channel. I decided to join this channel, and now my friends in this channel often ask me to speak English in the chat. I enjoy being part of this community. (Interview, 22/02/2022)

Anny exhibited autonomous language-learning behaviour using CMC technology. The current younger generation grew up with CMC technologies and regard them as indispensable tools in their daily lives (Ryan & Deci, 2020). Anny exemplified this trend, as she had also recently joined '*Jago Bahasa*'. Anny benefited from the learning materials provided by the channel administrator (a teacher of this English course), which included grammar, vocabulary and English pronunciation lessons, along with quizzes to test her knowledge. She could also practise her English with other subscribers on this channel.

Motivation to perform CMC tasks better also led Yuliana, Anny, Hans and Sella to engage in various online English-learning platforms actively. For example, students were asked in the interview, 'Were there any changes you felt during or after following the series of tasks?' Yuliana responded that she felt more motivated to learn English. Therefore, she joined a Korean pop band's official social media site to practise her English and have fun. She said, 'The idols had a chat application. Because they could speak English, I used English. Then in the community, the fans came from worldwide, so the communication was in English' (Interview, 23/02/2022). K-Pop is extremely popular in Indonesia, particularly among teenagers and young women (Rakhmat & Tarahita, 2020). Through a fan-based chat application, Yuliana could practise her English in an authentic environment by interacting with other fans worldwide through the comment feature. She could also access the latest information about her idols' activities. This engagement offered her a natural environment in which to practise and improve her English communication skills by communicating with other fans from around the globe.

Furthermore, by engaging in CMC tasks, students could self-reflect on their communicative skills and compare them to their partners'. Once they identified their weaknesses, they tried to fill this gap by joining an additional learning channel. For example, Anny and Hans discovered weaknesses in their speaking and listening skills; therefore, they focused their learning investment on improving their pronunciation and speaking and listening proficiency by watching English videos. In Anny's case, she explained that she tended to watch English YouTube videos with English subtitles compared to her previous habit of using Indonesian subtitles only. She confirmed this in the interview:

> It [performing CMC tasks] motivated me to watch foreign YouTube channels with English subtitles and English speakers. I knew what it [the video] meant; I just wanted to develop a way of saying it; if you wanted to say it like this, then the show was like using English and reducing those using Indonesian subtitles. (Interview, 22/02/2022)

Similarly, Hans tried to improve his speaking and listening skills; therefore, he could perform better on subsequent tasks, equally and collaboratively with his partners. He actively sought out English videos on Instagram or YouTube to achieve this. Hans revealed in his interview:

> I also recognised that my speaking and listening were terrible, so I searched, whether Instagram or YouTube; basically, for anyone who spoke English. So,

> I just listened, even though it was an ordinary video, not a learning video. I often just watched and challenged myself to understand it without opening the dictionary. Did I know what they were saying? (Interview, 19/02/2022)

Self-reflection on one's skills was also shown in Sella's case. She felt that her pronunciation was not good; therefore, she also used YouTube as a learning resource to improve her accent. She used videos that provided authentic examples of correct and acceptable English pronunciation and engaged in dedicated practice. She stated, 'It was because I loved English, and I usually learned it from YouTube; I only listened as usual and practised how to pronounce it, but since doing the task, I often talked to myself in front of the mirror while practising' (Interview, 18/02/2022).

5.1.2 CMC tasks fostered students' self-confidence and willingness to communicate in English

Another prominent finding of students' participation in CMC tasks through Instagram was an enhancement of their self-confidence in using the target language. For example, Adam and Appy realised that completing CMC tasks boosted their self-confidence in using English spontaneously for communication, albeit in different ways. Adam found speaking English spontaneously intimidating, feeling nervous and quite scared at the beginning of performing CMC tasks. His fear is common among language learners, where the pressure to perform well can lead to anxiety. As he engaged in CMC tasks, however, something transformative occurred. He realised that completing these tasks boosted his self-confidence. The opportunity for meaningful interaction with the practical application of English in a real-world setting allowed him gradually to overcome his initial fear. Over time, he began to feel more relaxed and capable. As he responded when he was asked whether doing the CMC task was a benefit to him:

> The benefit was I felt more confident when I spoke English spontaneously. I usually felt nervous and quite scared at the beginning of the task. However, after doing it a few times, I felt relaxed and realised I could do it. It was like a normal conversation. (Interview, 22/02/2022)

Appy's experience with CMC mirrors Adam's in another way. While Adam found growth in his spoken English skills, Appy discovered that performing CMC tasks increased her confidence to communicate in English in written form. She said, 'I thought learning English using CMC tasks through Instagram made me more confident. It trained me to use English in written form' (Interview, 18/02/2022). The outcome arose from her consistent engagements with CMC tasks on Instagram. Appy's confidence grew as she became more adept at using English in online written communication.

Self-confidence in using the target language was among the most critical factors affecting students' willingness to communicate (Cao & Philp, 2006; Yashima et al., 2016). This correlation was particularly prevalent within the context of language learning, where willingness to communicate pertained to learners' preparedness to engage in communication or discourse using the target language with their interlocutors in a given context and moment (MacIntyre et al., 1998; Peng, 2022). The link between students' self-confidence and willingness to communicate was rooted in the students' perceived competence. They began to believe in their ability to communicate in English when they recognised that the application of language knowledge and skills developed through interaction during the tasks was similar to their communicative needs in daily life. By completing CMC tasks and successfully navigating communicative challenges, the learners gradually built a repertoire of experiences that bolstered their self-confidence.

The increase in students' self-confidence and perceived competence communicating in English after performing several CMC tasks led them to feel more willing to complete CMC tasks or use English in daily communication. Although, in the initial stage of the CMC task sessions, students commonly experienced hesitation, uncertainty and feelings of inferiority when they discovered challenges like unfamiliar vocabulary, they became more confident after successfully finishing the tasks with their peers. When Adam was asked, 'Did you ever feel reluctant to speak English?' he responded:

> Yes, sometimes I felt that, when I found new vocabulary. I was afraid of making mistakes in pronouncing the word. If I had understood all the terms, I felt confident to speak, but when I was still having doubts about the meaning, I felt unwilling to talk. (Interview, 22/02/2022)

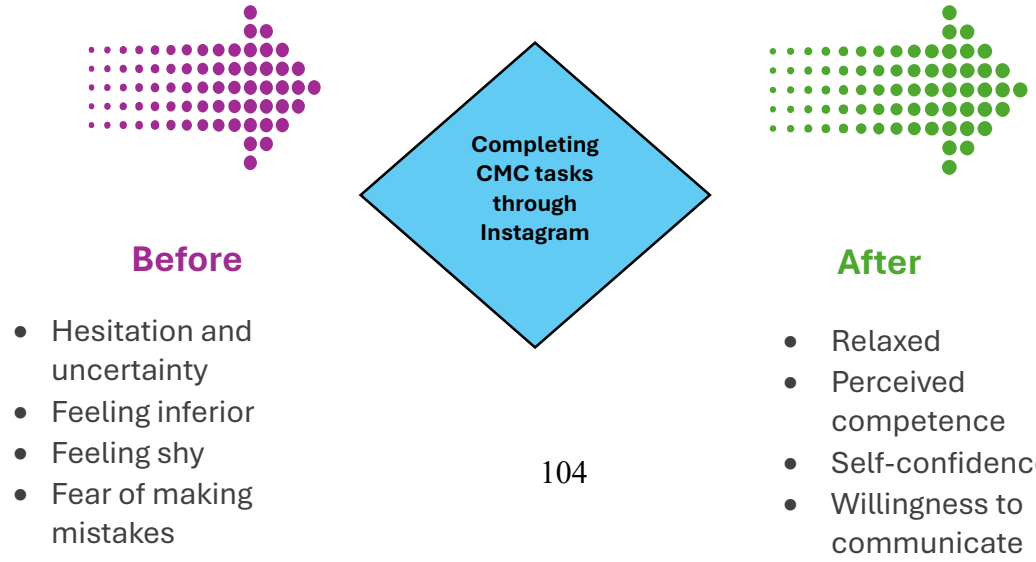
A lack of vocabulary inventory, uncertainty about pronouncing words correctly and feeling inferior in their proficiency were common factors hindering Indonesian students from communicating as they feared an adverse reaction from others towards their low levels of English (Kusuma, 2021). Bevy also experienced this feeling due to her perceived lack of proficiency in English communication:

> Sometimes, on a video call, I was afraid I couldn't understand the other person's speech in English. I sometimes felt inferior, embarrassed and fearful that my partners were more proficient than me. I was worried they didn't know what I meant and didn't understand, so I was usually embarrassed. (Interview, 19/02/2022)

After students continued participating in the CMC tasks regularly, however, their perceived competence and self-confidence grew, reducing their anxiety and fostering their willingness to communicate. As Bevy affirmed, 'I felt more confident when speaking in English because I had practised speaking English several times and I knew a lot of new vocabulary' (Journal entry, 11/02/2022). The stated anxiety might vary in intensity and fluctuate over time. When students' stress decreases, it will linearly increase their self-confidence since the correlation between self-confidence and anxiety is negative (MacIntyre & Gregersen, 2022; MacIntyre et al., 1998). Therefore, developing students' self-confidence led to a consequent increase in their willingness to communicate in English, as seen in Figure 5.1.

Figure 5.1

Transformation of Students' Self-Confidence and Willingness to Communicate



Other factors that encouraged students to communicate more during the completion of CMC tasks were the topics of the tasks themselves and the platform used to communicate. Task topics are vital to students' willingness to communicate in the target language (Chichon, 2019). It was found that challenging tasks, such as a survival scenario in Task 5 ('Select a 12-kilogram survival kit'), encouraged students to communicate more. The nature of the task required them to reason, negotiate and persuade, as they had to convince their partners to agree with the ideas they presented. For example, one student, Fascia, thought of the task as a mission. Thus, she felt encouraged to complete it by creating compelling reasons to convince her partner that the proposed items were worth including, given the weight limitation of only 12 kilograms. She felt that the unique challenge of the task encouraged a higher level of engagement and communication. The scenario demanded more than mere selection; it required analysis, justification and collaboration, prompting more extensive contact. Other topics covered in the tasks, 'Choose a tourism destination' in Task 4 and 'Define the meaning of a best friend' in Task 6, were also fascinating to the students. These topics were common experience and directly related to their social lives, reflecting activities and ideas that were familiar to them. Two students, Iliana and Achim, expressed their appreciation for the simplicity and relatability of the topics. They felt that these qualities made the topics accessible and allowed them to complete the tasks without feeling overwhelmed. The exciting topic and the familiarity of the task worked synergically to create an environment where students were more willing and eager to communicate, showcasing the importance of well-chosen topics in facilitating effective language learning (Xu & Qiu, 2021).

Using Instagram chats as a communication platform also contributed to the students' willingness to communicate during the tasks. Amy and Sella expressed their satisfaction with Instagram's user-friendly chat feature, citing its ease of use in their journal entries dated 09/12/2021 and 11/02/2022. This ease of communication was significant in the ongoing COVID-19 pandemic, when students shifted to online learning due to restrictions on in-person classroom sessions. The platform's user-friendly interface and familiar environment made it less daunting for students to practise their language skills without the formal pressures traditionally associated with Indonesian classroom settings. Their increased comfort and willingness to communicate on Instagram is corroborated by prior research; a study by Chotipaktanasook and Reinders (2016) showed that students are generally more willing to communicate via Instagram compared to traditional classroom environments in Southeast Asia.

The specific benefits of using Instagram chat as a language-learning tool will be further elaborated in section 5.2.

5.1.3 CMC tasks were enjoyable

A notable aspect of students' experiences with CMC tasks was the sense of enjoyment and fun they experienced. Positive emotions described by students included sentiments like 'fun', 'happy', 'interesting' or 'enjoyable', as illustrated in Figure 5.2. This word cloud was created using MAXQDA 2020 (VERBI Software, 2020) by inserting all the students' comments verbatim from their interviews and journal entries. I filtered out the less-relevant words, including pronouns, conjunctions and articles, for more precise analysis. The resulting total number of words was 50,225, with the most frequent words being learning (0.52%), Instagram (0.51%), directly (0.49%), media (0.49%), friends (0.48%), social (0. 48%), new (0.47%), practice (0.46%), like (0.45%), fun (0.43%), interesting (0.42%) and happy (0.41%). Dewaele and Li (2021) characterise *enjoyment* as a positive emotional state involving happiness, fun, interest, pride, challenge and meaning. Essentially, enjoyment is experienced when students engage in social activities that meet and exceed their expectations, resulting in intellectual satisfaction, fulfilment and happiness.

Figure 5.2

Word Cloud of Students' Interview and Journal Entries Visualised Using MAXQDA

Rhone's feedback offers a salient example of his positive sentiment. He expressed appreciation for the CMC tasks, highlighting the enjoyment they provided. Beyond his academic gains in vocabulary and grammar, he also valued the broader experiences the tasks provided. As he reflected, 'I felt it was enjoyable and exciting because, apart from learning new vocabulary, the correct way of writing, the correct way of pronouncing, improving speaking, I could also get to know new friends in this practice' (Journal entry, 12/12/2021). This reflection suggests that Rhone's sense of enjoyment was deeply intertwined with the collaborative nature of the tasks. The CMC tasks were not merely tools for linguistic advancement but also offered avenues for social interaction. Through these tasks, students honed their language skills, expanded their social networks and engaged in authentic conversation contexts.

During the challenges presented by the COVID-19 pandemic, students found CMC tasks on Instagram educational and socially rewarding. Given the imposed physical barriers restricting FTF interactions, Instagram emerged as an avenue allowing students to go beyond their social circle and connect with a broader cohort of their peers. This experience underscored the inherently social nature of language learning (Resnik & Schallmoser, 2019). Instead of practising the language in isolation, students used it as a dynamic instrument for social connection. As Ikeas described, 'What I like about Instagram was that I could have more friends. Previously, I did not know people from the other classes, so now I knew them and became friends' (Interview, 21/02/2022). This statement not only points out the academic benefits of the platform but emphasises the emotional and social rewards. It is evident that online task-based language learning on Instagram offers more than academic enhancement; it also fosters genuine relationships. Sella also shared the same opinion: 'I felt delighted because I made new friends and my favourite subject was English, so I enjoyed it. Even though this was a task, it looked like common learning, so it was so fun' (Interview, 18/02/2022). Such expressions highlight the importance of socialisation, especially for first-year university students navigating the unique challenges of initiating their higher-education journey entirely online due to the pandemic. Deprived of traditional avenues to interact with peers and the broader university community, platforms like Instagram filled a crucial gap. Indeed, social connections act as buffers against loneliness and stress, safeguarding students' well-being in these unsatisfying times (van Tilburg et al., 2021).

Students also found the CMC tasks enjoyable, primarily because these tasks resonated with real-world scenarios, making language learning more meaningful. Students could apply their linguistic knowledge in context by engaging in tasks resembling everyday situations. For example, in Task 1 ('Choose the best transportation mode to reach a tourist destination'), students were required to negotiate the most suitable transportation methods to reach a tourist destination. This task was not just about using English for learning but also mirrored practical discussions one might have before travelling, adding relevance to students' learning journey. Bella's reflection reviewed this sentiment: 'I could practise what I learned directly (through daily life communication tasks), which made me more fluent in English because, in my opinion, learning a language had to be practised directly' (Journal entry, 28/11/2021). She highlighted the advantage of completing CMC tasks to apply her linguistic knowledge. This approach reinforced her language learning, making recalling it more concrete and easier.

Anny's feedback provided another dimension to this experience. She articulated satisfaction with the CMC tasks, highlighting how the tasks felt like natural everyday conversations rather than academic exercises. Leveraging Instagram as the platform for English learning likely contributed to this perception. As a platform the students frequently use for daily interactions, Instagram naturally made learning English feel more seamless and intuitive. Indeed, Anny found that tasks rooted in familiar contexts were more engaging and facilitated better vocabulary retention. As she explained:

> If I discussed academic topics directly, it was heavy, like a burden. However, if the issues were recognisable and like an everyday conversation, I also enjoyed it. It was like just chatting, using basic English. I could also more easily memorise the vocabulary. (Interview, 22/02/2022)

Using Instagram as a language-learning tool, especially incorporating tasks rooted in familiar contexts, can enhance students' engagement and enjoyment (Sulis, 2022). Their prior knowledge or past experiences related to these topics provide a strong foundation for accomplishing the tasks. Embedding the learning process in a platform that students already use daily made the lessons more immersive and memorable (Xu & Qiu, 2021).

Engaging in CMC tasks was perceived to be an interesting language-learning approach. The tasks provided the opportunity to practise English communication outside the classroom. In the

Indonesian context, local languages dominated daily informal interactions, such as Javanese in Central and East Java, Sundanese in West Java and Madurese in Madura Island. Meanwhile, Bahasa Indonesia is the medium for formal communication, such as in schools or public services and serves as a *lingua franca* bridging the communication gap among people of diverse ethnicities. Consequently, this linguistic environment leaves little room for students to use English in everyday situations. Panji's journal entry succinctly illuminates this context: 'I quite enjoyed doing English conversation practice because I rarely use English in my daily life' (Journal entry, 10/12/2021). Ikeas also perceived CMC tasks as exciting compared to the typical English-learning activities in the conventional classroom due to the opportunity they provided to practise English outside the classroom. He acknowledged the activity in Task 2 ('Sharing opinions about the meaning and principles of online friendship') through audio chat. He explained, 'Previously, I studied English by mostly only memorising vocabulary. There was no direct practice with this model. However, using this communication channel (audio chat). It allowed me to use English as a conversation medium' (Journal entry, 5/12/2021). The focus of the CMC tasks requiring students to conduct daily life communication tasks in English was appreciated by students as an exciting learning model. Students felt that the tasks were more interactive than in their formal English classrooms, which mainly prioritised reading and written grammar items following the national examination requirements and had little time left for communication practice. This affordance led to the perception of learning English through these tasks as more beneficial for developing students' communication skills (Kim et al., 2017).

Integrating CMC tasks via Instagram into language learning was met with positive student reactions, and Instagram was perceived as an informal, enjoyable, convenient and flexible communication tool. This accessible learning platform, which differs vastly from traditional Indonesian traditional classroom settings, seems to decrease potential learning anxiety, making the process feel more welcoming and accessible (Kessler et al., 2020). Formal classroom learning in Indonesia, often characterised by repetitive and predictable activities, can sometimes lead to students' disengagement and boredom. The dynamic nature of CMC tasks on Instagram, however, introduces an element of novelty and spontaneity. Ahsan endorsed this: 'I was delighted and agreed with this learning model because it was non-formal and relaxed, which made the activities easy to follow and not monotonous' (Journal, 28/11/2021). Bevy's statement further notes the value of Instagram's flexibility in learning. She commented:

> I liked doing tasks through Instagram because, apart from modern media, I could now do tasks flexibly wherever I could do tasks through Instagram. Even when I was outside, I still could have the opportunity to join if it was through Instagram. So, I did not just technically have to be onsite. (Interview, 19/02/2022)

This comment suggests an appreciation for the platform's modernity and highlights the ease of access and continuity of learning. In conclusion, incorporating Instagram into language teaching through CMC tasks appears to be a novel approach that aligns well with the preferences and lifestyles of today's students. As supported by Gonulal (2019), platforms like Instagram that blend informality with flexibility can significantly enhance the enjoyment and effectiveness of the English-learning experience.

5.1.4 CMC tasks were perceived as expanding digital literacy

In the contemporary digital era, the boundaries of learning and communication have been expanded by the affordances of online platforms. Although initially designed as a social platform for sharing photos and videos, Instagram has also emerged as a significant educational tool. As students engaged in CMC tasks through Instagram chat, they honed their communication skills and potentially enhanced their digital literacy in the process. Students found that CMC tasks helped them navigate various Instagram chat features to create direct communication in pairs or groups. Though many individuals were familiar with Instagram for sharing photos and videos, using its chat features for specific communication activities revealed gaps in users' technological literacy. Rose, for example, found that her peers struggled with managing video calls. Although they might be active users of Instagram, they might not be well versed in all its functionalities. She reflected:

> Doing tasks through Instagram was very helpful in getting to know various features for communication, especially in terms of video chat. Some friends did not know how to turn off their video chat if they had done the task. (Journal entry, 22/01/2022)

Hans, another student, shed light on the unique potential of Instagram as a valuable tool for educational purposes. While undertaking CMC tasks, he not only gained a fresh perspective on the instructional capabilities of Instagram but also enriched his technical knowledge. He

became familiar with the platform's functionalities and said, 'Performing CMC tasks offered me fresh insight, especially since using Instagram for learning was still rare. In the process, I became aware of certain features, like the ability to create groups or send GIFs' (Interview, 19/02/2022).

Undertaking CMC tasks also provided students with an enriched experience, not just in language acquisition but also in adeptly navigating an array of online tools beyond the limits of the Instagram platform. Online tools, such as online translation or text-correction software, aided task completion, allowing their simultaneous use alongside Instagram chat through smartphones. A case in point was Hans' experience with Task 1 ('Choose the best transportation mode to reach a tourist destination'), via Instagram text chat. He stated that, 'for the first task, it was still easy, so I did not think there were any problems. It was still effective through chat because, when I did not understand, I could translate or find the meaning' (Interview, 19/02/2022). This case reinforces the observation of Jacobs and Castek (2018), who advocate that people be digitally literate in the evolving information application to address real-world challenges. Hans exemplified this issue by harnessing the capabilities of an online translation tool to resolve his understanding of unfamiliar vocabulary encountered during the conversation. In the case of performing CMC tasks via Instagram voice chat, students also leveraged translation tools, especially Google Translate, to ascertain the pronunciation of the words. With a simple touch of the speaker icon, they could instantly hear the correct pronunciation of words, enhancing their spoken fluency and confidence. Ahsan highlighted its utility: 'I could open Google Translate during the voice chat to search for the word's pronunciation' (Interview, 19/02/2022).

Students also recognised the usefulness of digital tools and text correction to correct their spelling on their smartphone keyboards via Instagram text chat. Yuliana noted, 'I used the keyboard with a text-correction feature, so it avoided typos' (Interview, 22/02/2022). This technological aid alleviates spelling-error concerns and provides instantaneous feedback. Highlighting and rectifying mistakes in real time facilitates refining students' writing skills.

5.1.5 The challenges in completing CMC tasks through Instagram

During their engagement with CMC tasks on Instagram, students highlighted several challenges, however: 1) hesitation to initiate the tasks with a new partner, 2) partnering with less-enthusiastic peers, 3) the complexities of group discussion and 4) internet network disruption.

5.1.5.1 Hesitation to initiate the tasks with a new partner

Participants in this study came from different classrooms and were not previously acquainted, making initiating a conversation with unfamiliar individuals particularly daunting. Numerous students shared their experience that engaging in CMC tasks required double efforts in both conversation management and language skills. When it came to the task content, many students faced challenges in structuring their conversations and navigating the interaction dynamic. At the same time, they were concerned about language proficiency, especially fears regarding potential misunderstanding due to unclear pronunciation. Sella expressed this concern:

> Sometimes it was awkward at first. I thought about what I would talk about, how to start speaking and who spoke first or how? Then, I was also afraid that my partner did not understand what I was saying or pronouncing or whether my pronunciation was clear. (Interview, 18/02/2022)

This hesitation typically arose at the beginning of the tasks, especially for students who still lacked self-confidence about articulating and conveying the intended message effectively. According to Islam and Stapa (2021), students' hesitation to communicate in the target language might stem from the intricate nature of language production. This process requires students to manage various linguistics elements simultaneously, such as choosing the right vocabulary and forming grammatically correct sentences within a limited timeframe. Moreover, students' limited opportunities to be exposed to and practise English communication in daily life reduced their English communication ability. As Altaf shared,

> I felt a little confused before doing the tasks because I was not good at English. Although, in the past, my background was in a boarding school, where I should use Arabic and English, now it seemed my English was gone because I rarely used it. (Interview, 21/02/2022)

5.1.5.2 Partnering with less-enthusiastic peers

The second challenge encountered by the students in completing the CMC task was partnering with less-enthusiastic peers. For example, Ahsan felt that his motivation to complete the task was dampened when he sensed his partner's apathy towards completing the assigned task. This sentiment was pronounced during Task 5 ('Select 12-kilogram survival kits'). While the topic was exciting to Ahsan, he felt that the low enthusiasm of his partner adversely affected his motivation to engage in the conversation. Thus, he cited partnering with less-enthusiastic peers as one of his most significant challenges while completing the CMC tasks. As he articulated in his journal,

> The material discussed was fascinating, but sometimes my partner seemed uninterested in the conversation, so my enthusiasm for continuing the conversation was reduced. So far, the most problems I have encountered were partners who did not match well. (Journal entry, 26/12/2021)

Aubrey et al. (2020) emphasised that students' internal factors, including motivation levels, emotional states and individual learning styles, significantly influenced their disengagement during the tasks. This study further revealed that disengagement led to a lack of preparedness and decreased responsiveness during task interactions with their partners. Altaf, for example, highlighted the recurring issue of his partners' being inadequately prepared for discussions. Even though they were allotted a window of 2–5 minutes to review the topic, gather materials or take notes, many did not capitalise on this opportunity. Consequently, the ensuing conversation suffered, and the students were not fully engaged, leading to a lack of active contribution. Altaf captured this challenge in his journal: 'They were not ready with the topic discussed, and often not all of them were active in providing input' (Journal entry, 27/12/2021). Amy and Chika had similar experiences with their respective partners, encountering issues with responsiveness during task completion. These delays in responses and interactions were more than mere inconveniences. Sometimes members' slow responses to posts caused undue delays in finalising the tasks. Chika's journal provided further insight into their concerns. She expressed frustration with a particular student who was not only hard to reach once the task commenced but also tended to give excessively lengthy replies when she did respond. She reflected, 'One of the research participants was difficult to contact while the work on the task

has started and sometimes gave a very long response, so it felt like wasting time' (Journal entry, 9/01/2022).

5.1.5.3 Complexities in a group discussion

The dynamics of group interaction in CMC tasks presented distinct challenges for students when doing the CMC tasks. Engaging in a conversation with multiple people instead of just one requires more sophisticated communication strategies to manage participation. Although Cohen (2020) revealed that working in pairs was as optimal as a triad in terms of maintaining coordination and communication during language-learning interaction, students in this study still found that the trio was more complex, as they needed to monitor and modulate their contribution to ensure participation balance. Additionally, when communicating with more than one person, their attention became fragmented. Students had to track multiple conversation threads and interject at the appropriate moments, which can be more demanding than in a one-on-one conversation. For example, in the triad interactions, if two students became deeply engaged in a sub-conversation, the third might feel left out or struggle to find an appropriate entry point to the discussion. As Bevy experienced:

> I talked more in pairs because I was more intense with that person. But in a triad, sometimes only one learner was connected to another, so I had to adjust first; I tried to be able to get out with the conversation between learners A and B to ensure I was still involved. (Interview, 19/02/2022)

Ikeas also felt unease when collaborating in an online group setting, mainly when these interactions took place over video calls. His primary concern stemmed from the nature of group interaction wherein students often wait for their turn to speak. He elaborated, 'Working in groups was difficult, especially during video call; sometimes I had to wait until my turn to speak. This pause sometimes made me lose track of what I initially wanted to convey' (Interview, 21/02/2022). Ikeas found that these pauses often disrupted his thoughts and made him lose track of the core message he initially intended to communicate.

5.1.5.4 Internet-network disruption

Students also identified network disruption as a recurring obstacle to smooth communication. Revan, sharing a personal perspective, shed light on two main categories of challenge when using Instagram chat for CMC task performance: network connections and physical surroundings. Revan reflected:

> The challenges faced when doing tasks through Instagram chat were network connections and the surrounding conditions. The network connection was when our internet network had problems, so we could not access Instagram for voice-chat tasks. Covering conditions around us, such as noise, physical health and other factors, made communication through Instagram difficult. (Journal entry, 02/01/2022)

By 'network connections', Revan was referring to the reliability and stability of his internet connection. A weak internet connection hinders access to Instagram, making it impossible to perform the voice-chat tasks. Such a disruption can be particularly problematic in real-time communication, where continuity is crucial for understanding and responsiveness. On the other hand, 'surrounding conditions' encompass a broader range of external factors that can interrupt or degrade the quality of communication on Instagram. These factors include environmental disturbances like ambient noise, which can distract from or obscure the message. Personal factors like physical health and fatigue can also affect one's ability to communicate effectively, reducing their concentration.

The implications of network disruption are multi-fold. For text chats, this can mean delayed or even undelivered messages. This inconsistency not only interrupts the conversation flow but also poses challenges in tracking and responding to the ongoing discussion in a timely fashion. In this study, this issue caused delayed or dropped messages, making it difficult for users to follow the conversation and reply promptly. Video calls, which rely heavily on audio and visual signals, were subject to even more pronounced disruptions. For example, a weak connection can result in audio-visual asynchrony, where the visual feed does not match the audio, leading to potential confusion. Another common issue arising from poor connectivity is the video feed's freezing or becoming pixelated, greatly diminishing the overall quality and experience

of the call. Section 5.2.4 will provide a further detailed exploration of these issues, specifically the technical constraints.

5.2 Research Question 1a: What were students' experiences with completing CMC tasks via Instagram?

The first research sub-question (RQ1a) delves into the utility and perceived effectiveness of Instagram chat features to support CMC task completion, mainly when these tasks are conducted beyond the traditional classroom setting. Given the ubiquity of Instagram and its widespread use among students, it is imperative to understand how its chat functionalities might be harnessed for pedagogical purposes, specifically in English-language learning. The data collected from students' reflection journals and interviews provided a rich source of insight into their experiences with Instagram as a learning tool. This qualitative data was pivotal in identifying patterns and themes that reveal the potential affordances of using Instagram chat for language learning through Instagram outside the classroom: 1) an environment conducive to learning via text chat, 2) the potential enhancement of writing proficiency via text chat, 3) pronunciation refinement via voice chat and 4) boosting speaking fluency via video chat.

5.2.1 Creating a conducive learning environment via text chat

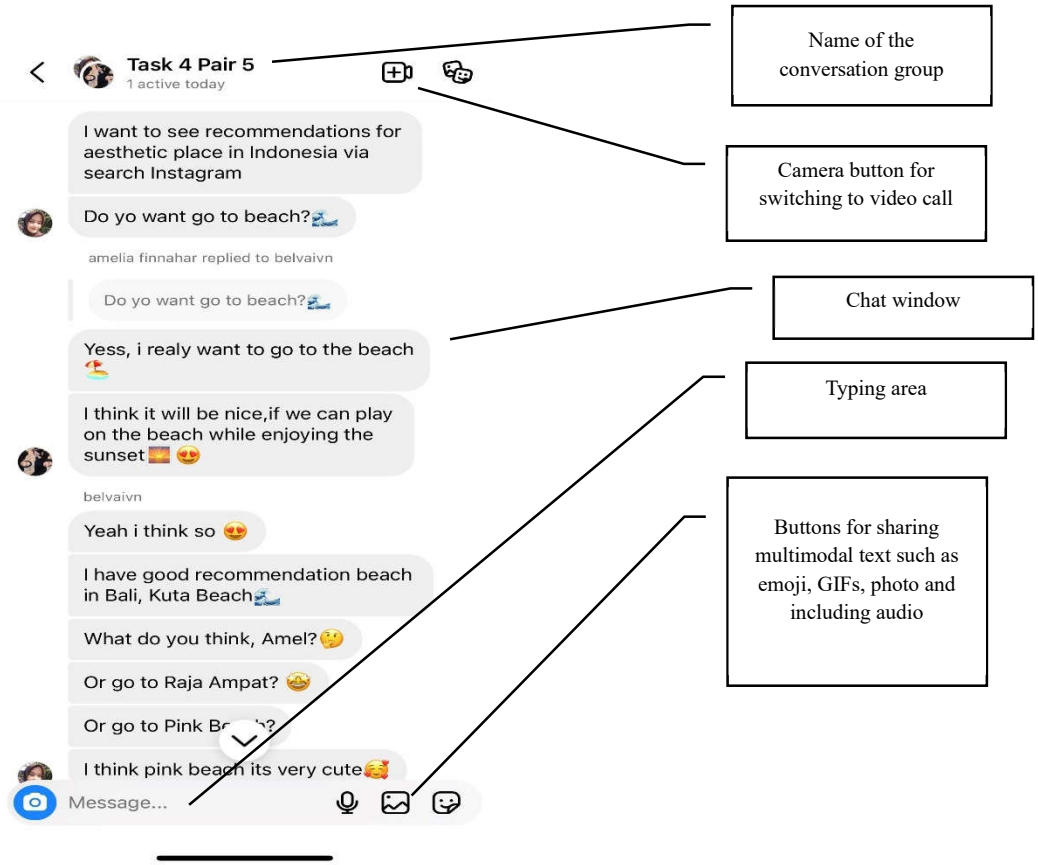
Students articulated a distinct comfort level when using Instagram text chat for online English communication. The ease of text-chat communication supported their comfort based on reading and writing activities. Reading written messages was sometimes easier because learners could control the pace of the action, take their time to understand messages, look up unfamiliar words or phrases and reread parts as needed. Echoing this sentiment, Sari shared her experience: 'The advantage of text chat was that it made me easier to understand the meaning of my partner's message because I just need to read the written words' (Journal entry, 04/12/2021). Students' comfort with text chat might be influenced by their self-professed limited proficiency in spoken English. Dhaval acknowledged that 'I preferred text chat because my English was still lacking, so I could learn little by little and continually' (Journal entry, 05/12/2021). This admission can be understood better when considering the educational landscape for English learners in Indonesia. Due to their limited exposure to spoken English, many students are less confident in, and adept at, oral conversational English.

Moreover, the curriculum in Indonesian secondary schools primarily focuses on honing reading, writing and grammatical structures, with minimal attention given to speaking skills (Ahsanu et al., 2020). As a result, many students naturally gravitate towards modes of communication like text chat, where they can more confidently express themselves. Moreover, text chat allows students to engage with the language at their own pace. They can read, process and consider their responses and even use resources to aid their comprehension or the construction of their reply.

This inclination towards text chat as a preferred mode can be traced back to the students' daily communication habits. Many of them have integrated text-chat communication into their routine interactions, rendering it almost second nature. For example, Anny reflected in her journal entry, 'I had been using Instagram text chat for a long time, so I was familiar with the features. I already used it before doing this task' (Journal entry, 22/01/2022). With its intuitive design, Instagram's text chat taps into this legacy, providing an interface that supports simple text and multimodal forms of messaging. Figure 5.3 provides a comprehensive visual breakdown of Instagram's text interface. Positioned at the top of the page is a display of the name of the group or individual with whom the users are communicating. Dominating the central portion of the interface is the exchange of messages. The messages the users send appear aligned to the right, while incoming messages from the other party are on the left. At the base of this chat window lies the interactive typing area, a dedicated space for users to compose their messages. Adjacent to the typing area, icons representing a microphone, gallery and GIFs offer users the flexibility to augment their messages by adding audio, photos or GIFs to their messages.

Figure 5.3

Instagram's Text Chat User Interface



Other factors contributing to students' feelings of comfort with text chat can be primarily attributed to the edit message function before sending and the built-in text-correction tools available on smartphone keyboards. These features helped students communicate more accurately and reduced their anxiety and fear of making mistakes in public. Ikeas echoed this view: 'What I liked about text chat was that I could compose sentences first and then recheck whether it was right or wrong before I sent it to my partner' (Interview, 21/02/2022). Furthermore, the convenience of text-correction features on mobile keyboards is indispensable in this comfort. Such tools serve as a safety net, catching and highlighting potential errors as students type their messages, thus enhancing their confidence in the messaging process. For example, Yuliana voiced her preference for text chat by highlighting this benefit: 'I preferred to use text chat because, when I typed a message, I used the keyboard with a text-correction feature, so it avoided typos' (Interview, 23/02/2022). This finding aligns with Barrot (2020), who suggested that text-correction tools can be instrumental in reducing errors in grammar and

spelling, especially for students still developing their language skills. By avoiding mistakes that might interfere with communication, students can receive quick and accurate feedback that enables them to feel confident in their writing.

5.2.2 Potential enhancement of writing proficiency via text

Students perceived that using text chat for foreign-language communication served as an effective tool for enhancing their writing skills, particularly in areas of correcting the spelling of English vocabulary and grammar. For example, Elia shared the advantages of text chat for refining her spelling accuracy, as noted in her journal: 'With text chat, I could hone my writing skills and understand correct English vocabulary spelling' (Journal entry, 10/12/2021). She could refine her vocabulary and attain a more profound understanding of its spelling through consistent engagement with text chat. Moreover, the medium of text chat inherently requires students to articulate their thoughts in writing. This constant need to convert ideas into written text offers invaluable practice for students. They are continually prompted to think in the target language, structure their sentences appropriately and choose suitable vocabulary. This continuous loop of formulation, articulation and feedback through interactions means that the student consistently learns and self-corrects.

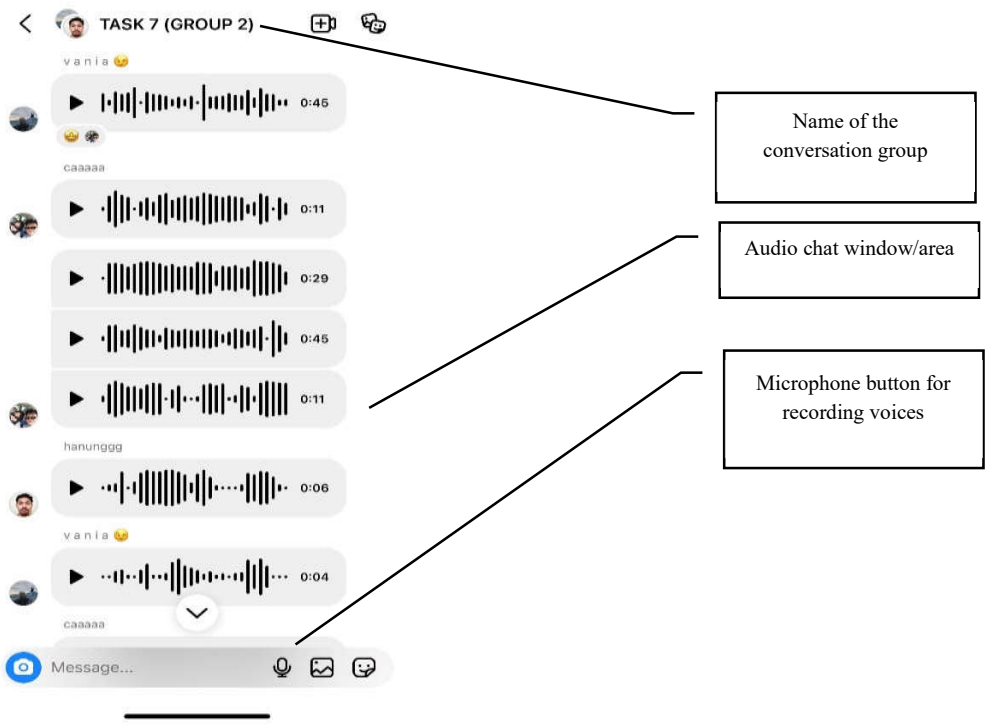
Further, Chika's journal entry offers another perspective on the benefit of text chat for enhancing students' writing skills. She wrote, 'Text chat enhances my language communication skills because it trains me to write in English with the correct tenses' (Journal, 23/01/2022). Her emphasis on using correct tenses showcases that text chat facilitates a deeper understanding of structuring sentences appropriately in English. This finding suggests that text chat offers not only a means of communication but also a real-time training ground for refining language structure. It supports Golonka et al. (2017) and Lin et al. (2013), who suggest that text chat is a nurturing environment for language learners and enables them to practise their writing skills within a supportive and interactive atmosphere.

5.2.3 Pronunciation refinement via voice chat

Instagram voice chat enables users to engage in authentic real-time spoken communication through an easy user interface. This tool simplifies communication by allowing users to articulate their thoughts and ideas spontaneously. The users must record their voice messages and send them directly to their interlocutors, as illustrated in Figure 5.4. At the top, the group or individual interlocutors' names are prominently displayed. The central portion of the interface is a chronological list of exchanged voice messages. Finally, at the bottom is a microphone icon specifically designed for voice recording by simply pressing and holding the icon.

Figure 5.4

Voice Chat User Interface



Students often noted the significant advantage of using voice chat in their English language-learning journey to refine their pronunciation. For example, Sella observed a noticeable improvement in her pronunciation since using this feature. This improvement resulted from interacting with various speakers and introducing her to diverse accents and modes of speaking.

As she uttered in her interview, ‘My pronunciation improved. . . . Audio chat trained me to listen, too, because some people sometimes had a different way of speaking or different accent. It’s becoming a challenge in listening’ (Interview, 18/02/2022). Exposure to various accents and speech patterns can be a rigorous training ground that pushes learners to adapt and refine their auditory comprehension and speaking skills. Solidifying this point, Yuliana shed light on the link between pronunciation and meaning in English. She clarified, ‘I think this was very helpful because here I used English, which sometimes differs between spelling and pronunciation. If pronunciation is not uttered properly in a particular context, it could change the meaning’ (Journal entry, 02/01/2022). Her statement underscores the significance of accurate pronunciation for delivering a meaningful message.

For students with limited previous exposure to spoken English, the availability of voice chat to listen repeatedly to the exchanges of voice messages helps them refine their pronunciation. This repeated exposure allows them to review their interlocutors’ pronunciation carefully. A significant aspect of voice chat is that it helps them to listen to the exchanges list of voice messages to review their interlocutors’ pronunciation. For many students, the act of imitating proficient speakers stands out as a beneficial learning strategy. Essentially, by listening to a skilled speaker, they can internalise the correct pronunciation of words and incorporate them into their conversations over time. Altaf’s experience exemplifies this process:

> I learned from a friend who had good pronunciation. From them, I knew it should be pronounced this way, and oh, that word was pronounced this way, so finally, I knew, and I could say it the right way, and then I could also practise conversation. (Interview, 21/02/2022)

The iterative process of listening, understanding and then implementing can effectively improve pronunciation. Yulia’s approach to voice chat offers further validates this. She adopted a self-reflective process: ‘Before I sent the voice message, I would listen to it again, examining whether it was correct, the way I pronounced words’ (Journal entry, 02/01/2022). Studies have demonstrated that voice chat is beneficial in enhancing students’ pronunciation, allowing them to practise and re-evaluate their pronunciation in a low-pressure environment (Bueno-Alastuey, 2010; Satar & Ozdener, 2008).

5.2.4 Boosting speaking fluency via video chat

Video chat, an online synchronous communication tool, integrates audio and visual elements to foster instantaneous and spontaneous interactions. As illustrated in Figure 5.5 this medium has rich features. At the forefront, the screen predominantly displays the video feed of users engaged in the call, offering a lifelike and immediate sense of presence. Positioned at the top of the screen are several practical icons. Users can tap a microphone icon to mute or unmute their audio quickly. Next to this is a camera icon, a tool to turn the video on or off. The switch arrow icon lets users switch between the front and rear camera devices. The close icon at the top right corner offers a straightforward way to end the call.

Figure 5.5

Instagram Video Chat User Interface

Students reported the immense potential of video chat in bolstering their speaking fluency in the English language. The immediacy and FTF nature of video chat compels users to process information speedily and respond in kind, simulating real-word conversational dynamics. Ryan, in particular, articulated the benefits he derived from this medium. He reported, ‘Video chat was beneficial in increasing my speaking fluency, training me to understand the messages quickly and helping me express my thoughts or ideas using English’ (Journal entry,

22/01/2022). His testimony indicates that video chat was not just a tool for verbal communication; it also honed his capacity to comprehend spoken messages rapidly.

Unlike asynchronous modes of communication, where students can take their time to construct responses, video chat mirrors real-world conversation dynamics. The cumulative effect of such interactions enhanced the students' speaking fluency, making them more adept at spontaneous conversation. Ahsan remarked that video chat trained him to structure words quickly and effectively before speaking. He reflected on the salient benefit of having a video chat: 'In terms of structuring the words that I wanted to say because the conversation was in real-time, I had to be quick in choosing and arranging words before I spoke' (Journal entry, 22/02/2022). This statement shows that choosing and structuring words during spoken interaction is complex. It requires a delicate balance between cognitive processing and linguistic expression. For students, particularly those learning an additional language, this activity involves not merely selecting words that best convey the thought but also matching the words to the conversational tone and following the grammatical rules. This finding supports the study of Tecedor and Campos-Dintrans (2018), which reports that peer-to-peer video calls can improve students' speaking fluency.

5.2.5 Constraints of using Instagram

Despite the practical implications of Instagram chat for language learning, students did report encountering challenges when employing this platform to complete their language tasks. The findings highlighted three significant issues: 1) technical issues, 2) video-chat anxiety and 3) distinct accent and pronunciation.

5.2.5.1 Technical issues

Instagram chat as a medium for language-learning tasks had some challenges, with technical issues at the forefront. The most frequently faced problem identified by the students was unstable network connectivity. In the digital communication era, students would assume seamless connectivity. Students are often challenged with slow internet speeds, however, which lead to prolonged lead-in times and impeded access to various chat features. Sella's experiences clearly describe these challenges. She often faced sub-optimal video quality

marked by blurriness or encountered disrupted audio transmission symptomatic of poor internet connectivity. She reflected, 'For a bad connection, for example, if the video might be blurry, or the sound is intermittent, I usually tell my friend to repeat it so that I can understand it' (Interview, 18/02/2022).

Other technical issues associated with Instagram chat, especially during video and voice chat, were the potential for disruptive situational and environmental factors. For example, Revan pointed out:

> Another challenge was the situation or the surrounding conditions that were not conducive when doing voice chat tasks on Instagram. The point was that because it was too crowded or there were many other voices, voice-chat activities would be disrupted, especially when listening to the other party convey the conversation. When I was about to talk, it would be disturbed. Therefore, each participant had to see the surrounding situation well. (Journal entry, 10/01/2022)

Further adding to the disruptive environmental factor were adverse weather conditions; Rhone reported: 'Rainy conditions made noise when doing audio and video chat' (Journal entry, 11/12/2021). These findings emphasise a critical aspect of using technology: users must mitigate the challenges from unpredictable external factors, such as disturbance from crowds or weather. According to Sitzmann et al. (2010), such external challenges can contribute to attrition rates in the online learning environment. Consequently, the users should adapt to their environment before performing the tasks to ensure optimal performance.

5.2.5.2 Video chat anxiety

Many students perceived that performing tasks through video chat heightened their anxiety. A predominant reason for this anxiety is their fear of miscommunication. For example, Revan documented his experience in his journal: 'While practising English conversation through video chat, I felt nervous, embarrassed and worried. Being face-to-face with others, even in a virtual setting, heightened these emotions, especially the fear and ashamed associated with potential misunderstanding' (Journal entry, 10/12/2021). This apprehension about miscommunication often arose from students' self-doubt regarding their English proficiency and conversational skills. They felt particularly vulnerable when they believed others were

judging them. Adam elaborated on this point, saying, 'One of the reasons was face-to-face; if I made a mistake or mispronounced a new vocabulary, sometimes I felt shy and inferior because my face was directly shown' (Interview, 22/02/2022).

Using video chat, which requires direct visual interaction, created another layer of anxiety and caused participants to have memory lapses. As Ikeas commented, 'I was not too fond of the video because I had to talk to someone directly. Sometimes when I didn't know the people, I felt nervous. Then, because I was scared, I forgot what I wanted to say' (Interview, 21/02/2022). This anxiety was likely amplified by the nature of the task, which often required students to engage with a partner they had not previously met in person. It is important to note that this study occurred during the Covid-19 pandemic, when students were wholly reliant on online platforms for their studies, potentially intensifying the feeling of unease in virtual interactions.

5.2.5.3 Distinct accent and pronunciation challenges

Several students identified accent and pronunciation as significant challenges when using voice chat to complete their tasks. As highlighted in the background (see Chapter 1, Section 1.1), Indonesia has rich multiethnic diversity, with various local languages spoken as mother tongues across the archipelago. As a result, Indonesian students exhibit diverse accents in English, often heavily influenced by their native languages. These regional linguistic nuances can lead to distinct variations in accent and intonation when they transition to English. Many students have multiethnic and local languages as their mother tongue. Therefore, their accent and intonation might differ in speaking English influenced by their first language. Ruskey articulated, 'Some students used flat intonation. . . . This results in certain phrases or words' being difficult to understand' (Journal entry, 10/01/2022). The interplay of their mother tongue's phonetics with English often creates unique pronunciation patterns making uniformity a challenge in such a linguistically diverse environment.

Idiosyncratic pronunciation can be a significant challenge for students engaging in voice chat interaction if the mispronounced words are vital to understanding and the meaning cannot be surmised from the context. The issue of unintelligible pronunciation affects both speakers and listeners. The fear of not being understood looms large from the speaker's perspective. Fascia

articulated this point: ‘If my pronunciation was wrong and unclear, it could cause the other person to have trouble knowing what I was talking about’. Conversely, from the listener’s point of view, understanding a speaker with a distinct or unfamiliar accent or variety can be problematic. Ahsan elaborated on this, mentioning his struggles when communicating with those less proficient in English: ‘Their pronunciation was so different that it becomes hard to interpret their messages’ (Interview, 19/02/2022). This dual perspective highlights the importance of clear accent and pronunciation for effective communication through voice chat.

5.3 Research Question 2: What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom?

The third research question (RQ2) investigates the role of nonverbal cues for completing CMC tasks via Instagram outside the conventional classroom setting. From the collected data, the findings unveiled four salient themes that emerged: 1) clarifying and emphasising meaning, 2) providing fun and enjoyment nuances, 3) regulating emotions and 4) enhancing emotional connections.

5.3.1 Clarifying and emphasising meaning

Using nonverbal cues in Instagram chat is perceived as a valuable tool for clarifying and emphasising meaning during task interactions. This section explores how students perceived nonverbal cues to communicate more precisely across three types of Instagram chats: text, voice and video. Firstly, Instagram text chat is inherently multimodal; unlike traditional texting platforms, it allows users to embed various nonverbal cues. Students commonly employed three types of nonverbal cues in this mode: emojis, GIFs and images. They found that images provided further clarity in conveying ideas. For example, Yuliana, in her journal, eloquently highlighted this function, noting that ‘using an image as a nonverbal feature was very helpful when I wanted to suggest a place, but I did not know the right word to describe’ (Journal entry, 20/12/2021).

In a similar vein, Chika highlighted the emojis and GIFs as practical communication tools to emphasise her points. In text-chat interaction, emojis have become the digital equivalent of tone and intonation in spoken language, helping to clear up ambiguity. For example, including

a smiley-face emoji at the end of a sentence can transform what might be interpreted as a blunt or even rude statement into something more friendly. Likewise, the use of a thumbs-up emoji can serve as an unmistakable indicator of affirmation. Beyond emojis, GIFs also provide clear emotional context for a message. For example, a GIF featuring an animated cat displaying surprise and admiration can serve to acknowledging and affirm the value of a previously mentioned idea, thereby making the attached emotion easily understood.

In Figure 5.6, students engaged in a discussion for Task 4 (‘Choose a tourist destination’). Here, image A vividly demonstrates how visual aids can enhance communication. In her chat with Rose, Appy introduces a beach in the Jogjakarta Province of Indonesia as a potential tourist destination. Rose, unfamiliar with this beach, prompts Appy to offer more details. Responding to this need for clarity, Appy shares a screenshot of the beach sourced from an online search, providing a more tangible context for her suggestion. Image B exemplifies the strategic use of GIFs to agree. Yuliana employs an animated GIF of Spiderman making an ‘OK’ gesture with his hand to visually signalling her agreement to Bella’s proposition. Bella had initially offered Bandung, a city in West Java Province, Indonesia, as an ideal vacation spot. To strengthen her recommendation, Bella highlighted the attraction of Trans Studio, a popular indoor recreational venue. She emphasised its appeal even during rainy seasons, presenting it as a year-round attraction.

Figure 5.6

Examples of Images and GIFs to Clarify and Emphasise Meaning

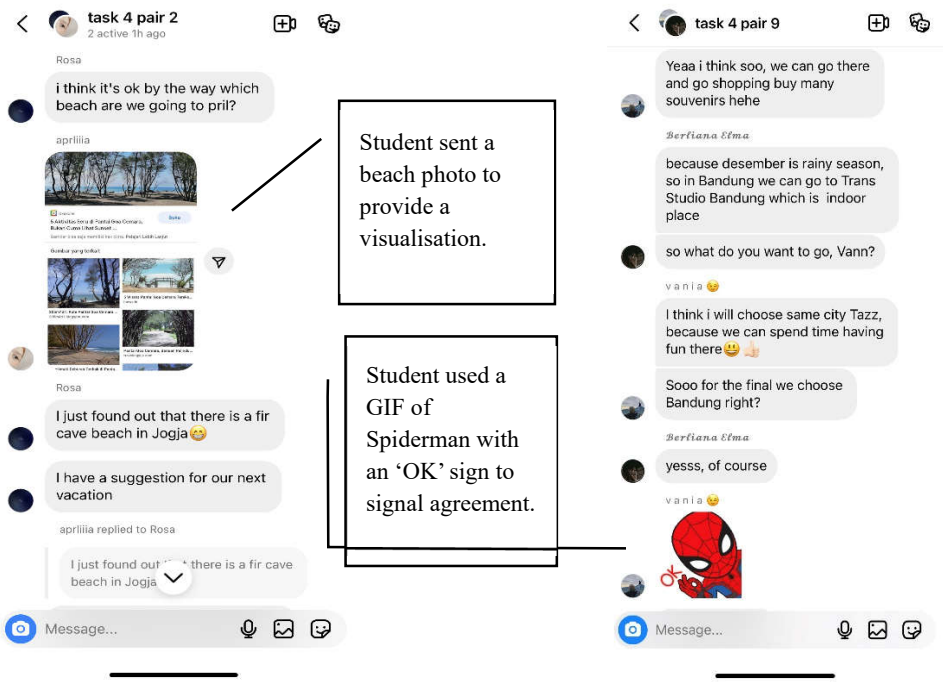


Image A **Image B**

Secondly, the role of intonation becomes particularly essential in voice-chat tasks. Elia realised that intonation could be a crucial aid, providing listeners with additional signals to comprehend the message better when visual cues such as facial expressions and gestures were absent. Drawing from her experience, she mentioned that 'intonation was also very helpful, especially when doing voice chat tasks. . . . For example, the emphasis in the speech or the unique manner in which certain words were pronounced often carries intonation that aided in understanding the message more clearly' (Interview, 19/02/2022).

Lastly, gestures and facial expressions in video chat were acknowledged as crucial elements in clarifying and emphasising meaning. Bevy elaborated on this perspective, stating that:

> Gestures significantly improved my comprehension. Seeing the speakers' faces, the nuances in their expressions and the accompanying hand movements often clarified the meaning. Sometimes, I could understand better from the direction of his hands, like, 'Oh, this was what he was explaining'.

> I felt more comfortable and understood when my speaking partner used gestures. (Interview, 19/02/2022)

Sella supported the significance of facial-expression cues, especially when verbal communication faltered due to unclear pronunciation. She emphasised, 'When the spoken pronunciation was unclear, I had to understand by looking at facial expressions, gestures or the context of the conversation' (Journal entry, 11/02/2022). These students' perspectives resonate with scholarly findings that underline the essential functions of nonverbal cues in enhancing speech clarity and reinforcing verbal messages (Matsumoto & Hwang, 2011).

5.3.2 Providing fun and enjoyment

As nonverbal cues, emojis and GIFs have been increasingly recognised for their capacity to bring an enjoyable element to interaction. According to Lu and Wu (2022), these cues enrich communication by expressing humour, sarcasm or playfulness more effectively than words alone. Based on the students' experiences, integrating emojis and GIFs elevated the level of enjoyment of the conversation and helped alleviate potential anxieties or discomfort associated with the tasks. Chika's reflections underscore the dynamic role of these nonverbal cues in enhancing the quality and experiences of digital interaction. She shared:

> Using emojis or GIFs made me enjoy and relax in completing the tasks. I thought using emojis or GIFs could be one of my strategies to get to know each other more closely so that we were not too tense and awkward, and I felt emojis and GIFs could increase the joy of conversation. (Journal entry, 22/01/2022)

Figure 5.7 exemplifies how GIFs can introduce an element of playfulness into task interaction on Instagram. This figure highlights excerpts from a conversation during Task 5 ('Select a 12-kilogram survival kits'), where students were challenged to meticulously choose essential items for jungle survival, ensuring that the total weight did not exceed 12 kilograms. In image A, the student used a GIF depicting a man with beseeching hands as a polite means of requesting that his partner complete a list of survival kit items if the weight of those items exceeded 12 kilograms. Meanwhile, image B presents a text from a student who used a GIF featuring a smiling woman with the words 'good job!' to express appreciation for her partner's valuable

input. These GIFs offer a casual and approachable conversation and provide relaxed interaction.

Figure 5.7

Example of the Playfulness of GIFs to Reduce Tension

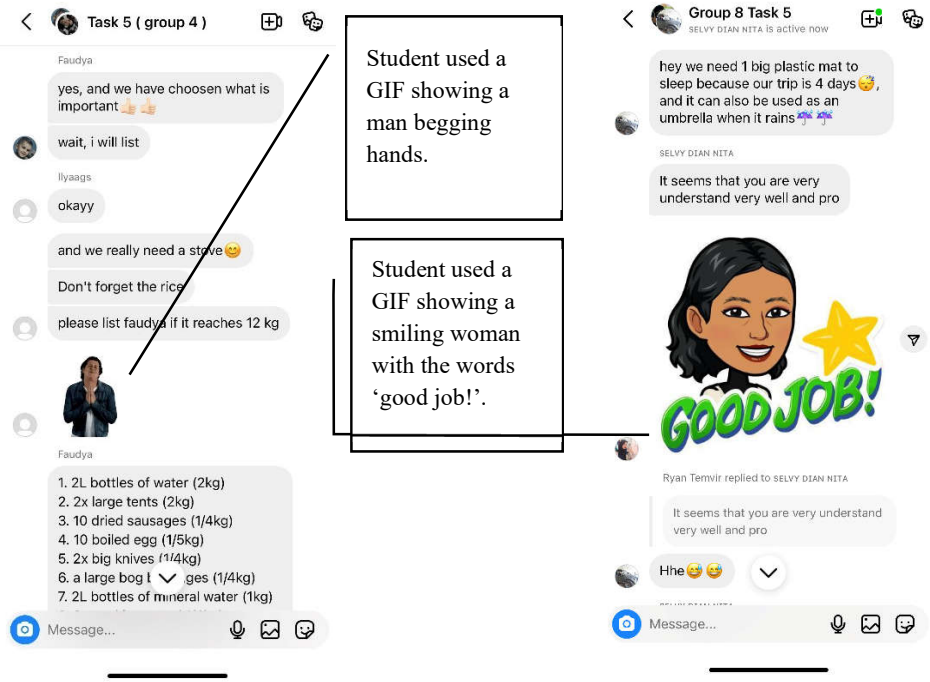


Image A **Image B**

5.3.3 Regulating emotions

Students noted that nonverbal cues played a significant role in assisting them with emotional regulation. As Swain (2013) underlines, emotions are not solely individual experiences isolated in a vacuum. They are intricately woven into, and shaped by, the fabric of our social interactions and the context within which they occur. Gross and Barrett (2011) have conceptualised emotional regulation as a series of emotional episodes within the broader context of a social event or scene. This process is not spontaneous; it is grounded in many cognitive and behavioural functions. It encompasses a spectrum of activities, including recognising and labelling emotions and using coping strategies to modulate the intensity and duration of emotional experiences (Näykki et al., 2014). Students, aware of this, have harnessed nonverbal cues as tools to strategically control and adjust their dynamic display.

Altaf's experience provides a telling illustration of this emotional regulation. By integrating emojis into his messages, he was not just enhancing the richness of his communication but also setting a tone aimed at fostering positive emotion and engagement. In this case, emojis assisted him in maintaining a desirable emotional state for himself and his chat partner. As he aptly noted during an interview:

> It would be awkward to use only verbal sentences, so I used emojis, GIFs, etc. so that my partners felt that they were encouraged to be active; for example, with a laughing emoji, I shared my emotions with them, and finally, they became involved. (Interview, 21/02/2022)

In video chats, students frequently employed gestures and facial expressions as tools for emotional regulation, as observed during the opening moments of various tasks, such as 'guessing fictional characters', 'Reorganising movie clips', and 'Constructing a story from random pictures.' Waving hands and smiling, for example, were observed to serve multiple functions that collectively set the emotional tone and mood for the upcoming interaction. These gestures and facial expressions were a nonverbal introduction, signalling that both students were ready for and open to conversation. Not only did they create a welcoming environment, but they also helped alleviate any initial tension or awkwardness. Furthermore, these opening nonverbal cues effectively initiated social contract between the students, underlining their mutual commitment to engage in the tasks. Doing so indicated that both parties were mentally present, focused and willing to collaborate.

5.3.4 Emotional connection

Many students expressed a strong appreciation for the availability of gestures, gaze and facial expressions in their online interaction, as it promotes emotional connection among them. Their peer relationships were significantly enriched when nonverbal cues were employed effectively. These cues served an important social function by contributing to creating a shared space and bridging the gap created by physical distance. For example, during Task 3 ('Guess fictional characters'), the students discussed identifying the fictional characters with their partners. Mahes valued the direct visual connection with his partner. Seeing his partner's facial expressions and gestures made him feel emotionally closer to them. It offered a natural quality to their interaction, akin to an in-person FTF conversation. He noted that 'it (video chat) felt

natural because I could directly see the facial expressions and gestures of the other person' (Journal entry, 22/01/2022).

Meanwhile, Chika mentioned using emojis and GIFs as strategic tools to establish closer peer relationships. She reflected in her journal, 'I think one of my strategies for becoming more acquainted and connected with fellow participants was the use of emojis and GIFs, as they added joy to our conversation'. Her reflection suggests that including these visual and interactive elements could create an emotional closeness among students. This is in line with Dobinson's (2022) arguments that the use of nonverbal cues, such as emojis, enhances intimacy in online learning interactions.

5.4 Summary

The qualitative findings of this study indicate that most students found that engaging in CMC tasks motivated them to achieve their goal in English language learning. Specifically, students felt that they had made substantial progress towards mastery goals in communication, including articulating ideas and making persuasive arguments. Beyond these skills, the CMC tasks also had an energising effect on the students' engagement levels. This heightened engagement was manifested in several ways: students were not only investing more time and effort into the tasks, but they also began to seek out additional language-learning opportunities beyond Instagram. For example, they took the initiative to join online English forums, engage with authentic English language materials and independently practise specific linguistic skills.

Students also perceived their willingness to communicate in English as being developed by completing CMC tasks through Instagram. Initially, they experienced nervousness and hesitation, as they were concerned about their language proficiency and potential communication errors. Their self-confidence improved, however, as they became more accustomed to the tasks and engaged in meaningful communication. Consequently, they became more willing to communicate, and more easily communicated, in English and complete the tasks. Students also reported that CMC tasks were enjoyable and meaningful due to their relevance to daily life. They could use the target language to perform daily tasks and socialise with new friends despite the COVID-19 restrictions. Additionally, the CMC tasks increased their technological literacy. For example, they became more aware of Instagram's latest

features, such as the abilities for group chat and sending GIFs. Students also became proficient in using online language tools, like text-correction services and online translation, to further aid their communication. Still, there were some drawbacks. Some students reported hesitating to initiate the tasks with a new partner and experienced difficulties when paired with less-enthusiastic peers. Others reported challenges, such as managing group discussions effectively and dealing with occasional internet-connectivity issues. These factors represent potential obstacles in leveraging Instagram-based CMC tasks for language learning outside of the traditional classroom environment.

Most students expressed that Instagram chat provided a favourable environment for practising English compared to a formal classroom setting. Specifically, students pointed out the advantages associated with different types of chat features. For example, text chat was cited as a particularly effective tool for comfortable communication in English, and many believed it had the added benefit of improving their writing proficiency. Voice chat, on the other hand, was lauded for its role in honing pronunciation skills. Finally, the video chat feature received positive remarks for its ability to promote speaking fluency. Students felt that its spontaneity and prompt feedback boosted their confidence and fluency in spoken English.

Students wholeheartedly acknowledged the importance of these cues in enriching their online interactions. They felt that gestures, emojis and other nonverbal cues served to clarify and emphasise the meaning behind their words, thereby reducing potential misunderstandings. Additionally, the use of nonverbal cues was perceived as injecting a level of enjoyment and fun into the task's interaction carried out via Instagram chat. Students also noted that these cues had an emotional effect. They believed that nonverbal cues helped in regulating their emotions during interaction, making the conversation flow more naturally and authentically. Such cues were seen as fostering stronger connection between students, thereby enriching the overall social experience of learning.

Chapter 6
Students' Language Use in CMC Task Interactions

This chapter explores students' language use in CMC tasks through Instagram, specifically their application of verbal and nonverbal cues. This chapter addresses research questions two: 2) What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom? and 2a. In what ways did students display multimodal interactive alignment in CMC tasks via Instagram outside the classroom? Following the rationale presented by Norris (2016), the MIA method was adopted to study the interaction and interplay between social actors in completing the tasks. This method focuses on all available communication modes, including both verbal elements (e.g., written and spoken language) and nonverbal components (e.g., visual, embodied gestures and spatial cues).

The primary focus of this chapter is on students' employment of nonverbal cues to foster English communication, especially in facilitating interactive alignment during conversation. Furthermore, it also considers the role of nonverbal cues in supporting emotional regulation to boost enjoyment in CMC task interaction. This chapter is structured into three main sections. The initial section describes the MIA framework and comprehensively analyses students' interactions while completing CMC tasks. This analysis spans both the micro- and macro-levels, covering lower-level action with the functional role of nonverbal cues in the CMC task interaction and higher-level actions where multiple semiotics resources were employed to foster English communication. The second section reviews the MIA that occurred in the students' online exchange when completing the tasks. Finally, how students employed multiple modes to show their foreign language enjoyment during CMC task completion will be discussed.

6.1 Students' interaction onInstagram

Table 6.1 provides an overview of the different communication modes utilised by students across nine tasks sessions. This table illustrates the diversity and distribution of communications modes such as written, spoken, emoji, GIF, image, gesture, gaze, facial expression, intonation and proxemic in each task session.

Table 6.1

Communicative Modes in Each Task Session

Communication modes	Task								
	1	2	3	4	5	6	7	8	9
Written	433	0	0	470	659	0	0	0	0
Spoken	0	200	754	0	0	298	348	454	516
Emoji	97	0	0	204	255	0	0	0	0
GIFs	8	0	0	51	19	0	0	0	0
Image	0	0	0	14	9	0	0	0	0
Gesture	0	0	218	0	0	0	0	345	203
Gaze	0	0	195	0	0	0	0	158	186
Facial expression	0	0	254	0	0	0	0	156	276
Intonation	0	179	621	0	0	204	282	267	295
Proxemics	0	0	57	0	0	0	0	34	48

Table 6.2 shows the various modes of communication utilised across text, audio and video channels in Instagram chats. Text-based communication relied on written forms and visual aids, such as emojis and GIFs. While in video-based chat, students incorporated more gestures and facial expressions alongside spoken language and intonation.

Table 6.2

Modal Configuration in Each Instagram Chat

Communication modes	Modal configuration		
	Text	Audio	Video
Written	1,562	0	0
Spoken	0	846	1,727
Emoji	556	0	0
GIFs	78	0	0
Image	23	0	0
Gesture	0	0	766
Gaze	0	0	539
Facial expression	0	0	686
Intonation	0	665	1,183
Proxemics	0	0	139

The following sections present examples of the students' language use on two levels of interaction: lower-level and higher-level interactions. Within each section, I provide an

example and its associated analysis. The extracts are visualised to illustrate the characteristics of the communication styles. As already mentioned, pseudonyms are used to ensure the participants' privacy.

6.2 Lower-level actions

Since the objective of MIA is to explore the role of modes in communication, the following section begins the analysis by explaining the elements of modes that build *lower-level actions*: to the smaller, more granular actions that individuals take as part of their overall behaviour during interactions (Norris, 2004). Lower-level actions often provide essential clues about individual thoughts, feelings and intentions and can help us better understand the dynamic of interactions. For example, based on the analysis of students' interactions in three different channels (text, audio and video chat), it was observed that, besides employing verbal, written and spoken language, students also used nonverbal cues, such as gestures, facial expressions, gaze and other nonverbal behaviours, to exchange ideas and information. As MIA tries to look in depth of every mode that participated in the interaction, the following sections will discuss each mode involved in the students' CMC task interaction, starting from verbal language. The coding schemes used in this study is like the one developed by Wigham (2017) and Norris and Pirini (2016), who break down the interaction according to the smallest unit or lower-level action. Therefore, the following sections will present the lower-level actions in the students' CMC task interaction through Instagram chats, such as verbal language, emojis, GIFs, images, gestures, facial expressions, gaze, proxemics and intonation.

6.2.1 Verbal language

The most salient lower-level action used by students for exchanging information in CMC task interaction through Instagram chat was *verbal language*, which refers to the system of communication using spoken or written words that primarily form communication amongst humans and forms the basis for most interpersonal interactions. Students employed verbal language to express their thoughts, feelings, ideas and experiences and respond to others, enabling social cooperation and coordination. In interacting through Instagram, students might employ verbal language in written and/or spoken forms, contingent upon their specific communication channels.

As shown in Figure 6.1, *written language* is the main communication method for Instagram text chat. This action is vital for exchanging meaning using visual letters, words or phrases. Herring and Androutsopoulos (2015) argue that the characteristics of online written language are typically more concise and direct than other forms of written communication. For example, when students discussed choosing a tourism destination for their four-day New Year's Eve holiday (Task 4) through text chat, Dhaval posted abbreviations and acronyms, such as 'Im' for 'I am' or 'u' for 'you', as shown in images A and B. These linguistic shortcuts allowed students to type and read more quickly, which is essential in the fast-paced online chat environment. Secondly, written language in text chat is often more casual and informal than traditional written language, such as that used in printed materials. Formalities and rigid grammar rules could sometimes be passed over in favour of a more conversational and relaxed style, such as adding or repeating more letters in some words; for example, as shown in images A and B, Rhone posted some spoken and informal words with letters repeated, such as 'emm', 'woohoo' and 'broo'. As noted out by Darics (2013), such repetitions could serve as nonverbal cues, carrying emotional information or connoting a friendly intent.

Further, another unique characteristic of written language in text chat was that the students often broke down a message into several postings (Herring & Androutsopoulos, 2015). This behaviour can be seen in image B, where Rhone posted two messages in one turn. One message was, 'woohoo is a good plan, broo', and the second was 'yes, sure, I want to go on vacation to Jogja'. The second message aimed to reply to a specific message, 'if u? do you have any plans?' as shown in the first part of the response post.

Figure 6.1

Written Language in Instagram Text Chat

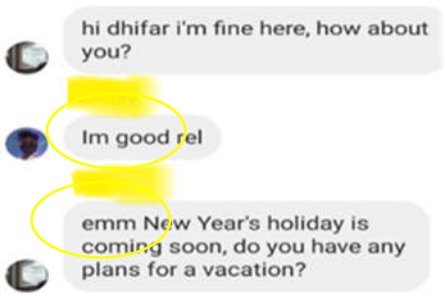


Image A

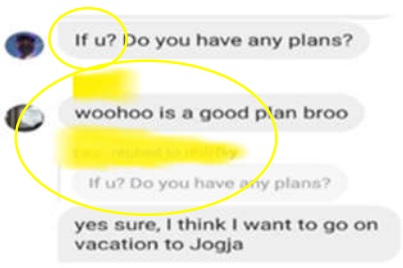


Image B

Another instance of verbal language used in the Instagram chat interaction was the spoken language available in audio and video chats. Instagram audio and video chat interactions have unique characteristics distinct from traditional FTF and written text communication. Audio chat, unlike text-based chat, allows for the transmission of prosodic features of speech, including intonation, volume and rhythm. These prosodic elements convey meaning, emotion and nuance in spoken communication. Audio chat, like FTF conversation, usually involves the use of fillers and discourse markers, such as 'uhm', or repeating words, like 'we', with pauses, as shown in Figure 6.2, which shows the conversation between Mahesh (MA) and Zuzana (ZU) discussing the role of online friendship in the COVID-19 pandemic time. Mahesh and Zuzana used fillers and discourse markers to manage the conversational flow. This indicates that they use these fillers for thinking time or showing a desire to maintain conversational control. These instances occurred because the spoken language in the audio chat is generally more informal and spontaneous than written language.

Figure 6.2

Spoken Language in Instagram Voice Chat

12. MA: The advantage of online friendship, uhm . . . I mean, we can get a lot of information about the world, and we easy to find some information uhm . . . like if we want to buy a second item we must go to form in Facebook, Instagram or Tweeter. ↑
13. ZU: Yes, uhm . . . that's right, your opinion, CH. For example, we . . . we . . . from . . . now . . . we will . . . studying together in the Instagram. ↓
14. ZU: Yes, uhm . . . we can get information quickly. ↓

Spoken language in video chat presents a fascinating amalgamation of characteristics, combining FTF and audio-only communication modalities. As illustrated in Figure 6.3, spoken language benefits from visual contact, where nonverbal cues like facial expressions, gestures and gaze significantly contribute to message transmission: for example, in the interaction between Rhone (RH) and Appy (AP) when guessing the name of a character taken from popular movies and stories. In this excerpt, Appy began to describe the unique characteristics of the

character by saying, ‘Boy, bad boy likes to lie, . . . long nose, what is this?’ in turn 5. In this turn, Appy also touched her nose while uttering ‘long nose’. Her partner Rhone seemed to actively engage in Appy’s exposition, touching his mouth and displaying a thinking expression. Rhone reiterated the phrase ‘Long nose?’ while replicating AP’s nose-pointing gesture, essentially seeking confirmation of his understanding of AP’s prior statement. Upon receiving affirmation from Appy, Rhone further engaged by proposing, ‘I think it is a Pinocchio’, while touching his nose and smiling. Appy confirmed this guess with a simple affirmation: ‘Right’. Spoken language in video chat is richer in dynamic, with the regular accompaniment of gestures, facial expressions and gaze direction, than spoken language in audio chat.

Figure 6.3

Spoken Language in Instagram Video Chat

5. AP: Boy, bad boy, likes to lie . . . long nose, what this?
6. RH: Long nose?
7. AP: Yeah.
8. RH: I think it is a Pinocchio.
9. AP: Yes, that’s right.
10. RH: Right. OK, thanks, next.

6.2.2 Emojis

Another dominant lower-level action performed by students was using emojis, which have become an integral part of digital communication, a powerful tool to enhance and clarify messages in Instagram’s text-based chats. They contribute to the multimodal nature of digital communication by adding visual and nonverbal cues that complement the text. Emojis can convey emotional nuance in a conversation and tone to textual communication that might otherwise be prone to misinterpretation (Phirangee & Hewitt, 2016). Figure 6.4 shows examples of emoji application in text chat, such as Revan using 🙄 (the face with rolling eyes emoji) accompanying a question when he wanted to show uncertainty about his idea. He also posted 👏 (the clapping-hand emoji) for appreciating his partner’s (Ikhbal’s) help, as shown in image A. Elia used 🤩 (the grinning face with star-eyes emoji) and 🙌 (the raising hands

in celebration emoji) to show her happiness and satisfaction after agreeing on a tourist destination to visit. Sella replied using 💯 (the hundred-point emoji), showing that she had similar feelings, as shown in image B. Image C shows Bevy and Rhone applying 🤔 (the thinking-face emoji) along with a phrase to form a question; sometimes they also added 🤔 after the question to lessen the intimidation. Bevy employed 😭 (the loudly-crying-face emoji) to signal emotion and create the aesthetics of the conversation, making it visually appealing and more engaging.

Figure 6.4

Emojis Used in Instagram Text Chat

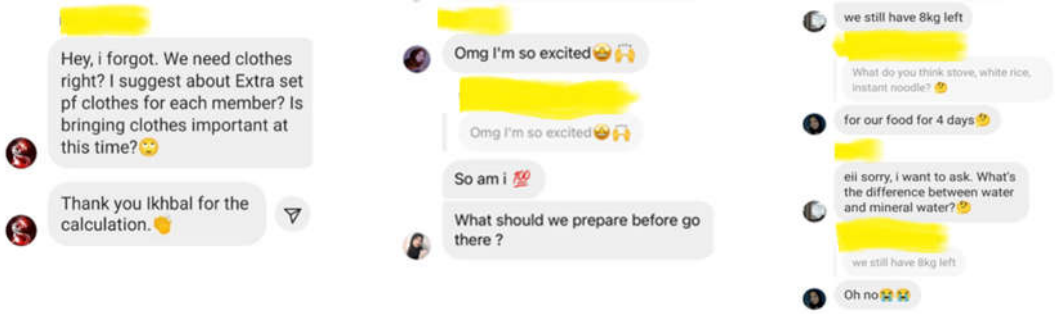


Image A **Image B** **Image C**

The students also extensively used various emojis to articulate their emotions, feelings and reactions. Four major groups of emojis were found to be extensively employed during task completion. 'Smileys and People' was the first group, which shows human facial expressions and bodily gestures. The second group was 'Animal and Nature', representing elements drawn from nature, such as a beach, wave, sunset, rain and more. Another group was 'Food and Drink', which includes icons/images of food or fruits, including watermelons, oranges, bananas or pineapples. Finally, the 'General Items or Symbols' group covers all symbols ranging from numbers to electronic signs. Detailed examples of emojis and their respective groups are shown in Figure 6.5, with 'Smileys and People' emojis being the most frequently used during Instagram chat interactions. Those emojis may function differently during online communication; following Li and Yang (2018), the following sections will discuss some observed functions found during the CMC task interaction, including emotion signals, emotion intensity enhancers, the illocutionary force modifier and backchannel.

Figure 6.5

Various Emojis Used by Students in an Instagram Chat Interaction

Emojis	Group
😂 😁 😍 😘 🎁 🤩 🤔 👍🏻 😜 🤚🏿 😊 🤣 🥹 🤞 🥺 😅 😩 👏	Smileys and people
🔥 ✨ 🌊 🚣 🌅 ☔	Animal and nature
🍉 🍊 🍌 🥭	Food and drink
💯 💡 ❤️ ✈️	Symbols

In the first example, I found emojis serving the purpose of signalling emotion, as illustrated in Excerpt 6.1. In this episode, emojis assisted the students by adding an emotional layer to their written messages to negotiate an agreement. The conversation was taken from Task 1 interactions involving Wawa (WA), Amy (AM) and Nia (NI). They are discussing selecting the best transportation to take to Bromo Mountain, a famous tourist attraction in East Java Province, Indonesia. It seemed that they had discussed the best time to go there before deciding what transportation they would use. The conversation starts with Wawa, in turn 11, suggesting an activity after completing their examinations. In turns 12–13, Amy responds enthusiastically to both Wawa's and Nia's previous messages, indicating that she believes the weekend (Saturday or Sunday) is the ideal time for the activity once the exams are over. Her enthusiasm is expressed with 😁 (the grinning-face emoji), showing her agreement and excitement. Next, in turn 14, Wawa expresses his agreement with Amy's proposal. In turn 15, Nia suggests that, if they proceed with the activity on Saturday, they could use Sunday to rest. She uses a 😂 (laughing emoji), perhaps to add a light-hearted or humorous tone to her message. Subsequently, in turn 16, Wawa shifts the discussion from the timing of the activity to its transport, asking about the mode of transportation they would use. Amy responds to Nia's earlier message, confirming that Saturday was the agreed-upon day for the planned activity, in turn 17. She uses a 👌 (okay-hand emoji) to symbolise her agreement with and finalisation of the plan. The use of 😁 and 😂 indicates that students want to signal their emotions related to their agreement and reasoning positively. This interaction shows the significant role of both verbal and nonverbal cues in enhancing the sense of agreement and shared excitement in digital communication. By mutually complementing one another, nonverbal cues add a dimension of emotional depth to the text-chat interaction and enrich the overall communication experience. This interplay between emojis and written text explains the emotional layers embedded within the text-chat interaction (Al Rashdi, 2018; Li & Yang, 2018; Vandergriff, 2013).

Excerpt 6.1

Emojis as Emotional Signal

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
11. WA: How about after the exam ends? 12. AM: Reply to 9> Yeah right NI. I think Saturday or Sunday. Because its weekend 😁 13. AM: Reply to 11> Yeah WA, maybe Saturday or Sunday, right? After we finish our exam 14. WA: Yes, of course, I agree with that. 15. NI: Reply to 12> Yap, if we go on Saturday, Sunday we can rest 😂 16. WA: So, what will transportation used? 17. AM: Reply to 15> Okay guys, so we go on Saturday okay 👌	Negotiation of agreement

This study also identified another function of emojis: as an 'emotion intensity enhancer', as illustrated in Excerpt 6.2. The students, Panji (PA) and Revan (RE), are discussing potential travel destinations in Task 4. The conversation is initiated by Panji, in turn 18, who proposes visiting Dieng, a highland area with various popular attractions. He seems optimistic about this idea, as reflected by a 🙂 (open eyes and a thin closed-smile emoji). In turns 19–21, however, Revan expresses his disapproval of travelling in mountainous or hilly areas. He confesses that such terrains exhaust him, intensifying his disagreement with a 😵 (dizzy-face emoji), which he uses to exaggerate his fatigue. Revan proposes an alternative location, Jatim Park (a recreational and learning complex), where they can relax and observe animals. Upon hearing this, in turns 22–23, PA responds with a sense of disappointment via 😔 (pensive-face emoji) to overstress his rejection. He points out the substantial distance between his current location and Jatim Park, suggesting it may be a hindrance. Instead, he proposes an alternative plan of camping at Wohkudu Beach. He describes this option as less strenuous and equally relaxing.

In turn 24, Revan seems intrigued by this idea, even if he seems somewhat embarrassed about not knowing where Wohkudu Beach is located, as illustrated by 😅 (smiling face with open mouth and cold sweat emoji). In turn 25, Panji concludes the exchange by providing

information about the location of Wohkudu Beach: it is in the Gunung Kidul area of Jogyakarta. This conversation shows how emojis emphasise students' feelings in a text chat. Revan seems to implicitly understand that verbal cues alone might fall short of fully articulating his emotion. He employs emojis to amplify his disagreement and persuasively communicate his emotions to his interlocutor. Therefore, his partner might better understand his objections to the proposed ideas. In this excerpt emoji was used to exaggerate the emotional content of a message that has been posted in the conversation (Li & Yang, 2018).

Excerpt 6.2

Excerpt of Emoji as Emotion Intensity Enhancer

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
18. PA: How about we go to Dieng, I heard there are many interesting destinations? 😳 19. RE: Actually, I don't like to travel in highlands such as mountains, hills and others. 20. RE: It makes me more tired. 😵 21. RE: How about we go to Jatim Park? I think seeing animals is also relaxing. 22. PA: Wow that's an interesting idea, sadly it's so far from here 😔 23. PA: How about we are camping on the Wohkudu beach, it's not too tiring to do and we can relax there too 24. RE: Wow that's great idea. Btw, where is Wohkudu Beach anyway? 😅 25. PA: It's still in the Gunung Kidul area of Yogyakarta	Content discussion

The third functionality of emojis observed in this study was their role as illocutionary force modifiers. Students employed emojis to soften the message, potentially indicating slight embarrassment. Excerpt 6.3 shows Rose (RO) and Appy (AP) discussing selecting a tourist destination for their New Year's Eve vacation during the Task 4 session. The dialogue is started by Rose in turn 9, who questions the potential places to visit in Jogja (Yogyakarta, a culturally important city in Indonesia) during their planned trip and 🤔 (thinking-face emoji), signifying uncertainty about the decision. In turns 10–11, Appy suggests Malioboro, a popular shopping

street in Yogyakarta, as a viable option. She perceives it to be affordable and comfortable. She also mentions that her suggestion aligns with their budget constraints, as indicated by 🤭 (face with hand over mouth emoji), indicating a slightly embarrassed face emoji. In turn 12, however, Rose responds with a contrasting perspective, sharing that she had been informed by a friend that the food in Malioboro was quite expensive. This response was followed by the same 🤭 (face with hand over mouth emoji), as she perhaps wanted to soften the contradiction. In turns 13–14, Appy expresses surprise at this information, admitting that she had assumed Malioboro to be a cheaper destination. She then proposes an alternative destination, a beach, reasoning that the serene atmosphere and sooting sound of waves might make it a good choice. The 🤔 (thinking face emoji) at the end of this sentence indicates that she is still pondering options. This excerpt shows the use of emojis to soften the effect of their messages, particularly when expressing potentially embarrassing information or contradicting a point of view (Li & Yang, 2018). Therefore, students can manage the interaction's social and emotional aspects to maintain the conversation's flow.

Excerpt 6.3

Emojis as Illocutionary Force Modifiers

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
9. RO: If we go to Jogja, where do we want to go? 🤔	
10. AP: How about in Malioboro? I think Malioboro is cheap and comfortable.	Content discussion
11. AP: According to my budget 🤭	
12. RO: I was once told by my friend in Malioboro that the food is very expensive 🤭	
13. AP: Woww, I thought it was cheap there.	
14. AP: What if on the beach, there may be the atmosphere is calm because you hear the sound of the waves 🤔	

Excerpt 6.4 presents the last function of emojis: 'backchannel device'. This function might benefit students to respond immediately to the message with a short expression in a meaningful way: for example, in the use of 😘 (smiling face with hearts emoji) in this interaction between Iliana (IL) and Chika (CH), who were completing the Task 4 session. In turn 12, Iliana initiates the conversation by proposing a vacation idea: visiting the cities of Semarang, Yogyakarta and

Solo, located in Central Java province, Indonesia. Iliana suggests these locations because she believes there are many beautiful places to relax in these areas. Chika, in turn 13, agrees to this proposal and expresses her enthusiasm with a 😍 (grinning face with star eyes emoji). Following this, in turn 14, Iliana shows appreciation for Chika's agreement with 🥰 (smiling face with hearts emoji), indicating her thankfulness. In turns 15–16, Chika inquires why all three suggested vacation sports are located in central Java, showing curiosity and potentially indicating a desire for more geographical diversity 🤔 (thinking-face emoji). Subsequently, Chika expresses a personal preference by choosing Yogyakarta as her preferred vacation destination, providing the reason that the city offers diverse tourist destinations, many of which are art-related. Chika's interest in art is the primary driver of this choice. This excerpt shows how the students employed emojis as an essential tool for expressing an immediate reaction with a positive emotion and displaying an acknowledgement to the interlocutor concisely and visually effectively to negotiate an agreement during text-based interaction.

Excerpt 6.4

Emojis as Backchannel

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
12. IL: Let's decide, it seems that if we go on vacation to Semarang, Yogyakarta and Solo, it will be fun because there are many beautiful places to unwind. 13. CH: Reply to 7> Yes, I'm agree IL 😍 14. IL: 🥰 15. CH: Reply to 12> Why I choose three cities to vacation only in Central Java? 🤔 16. CH: In my opinion, I choose Jogjakarta, because there are many diverse tourist destinations, in fact many are also related to the arts there. I am very interested in those related to art.	Negotiation of agreement

6.2.3 GIFs

A GIF (graphics interchange format) is an image file containing an animated image or a short looping video clip that plays repeatedly and is typically used to add visual interest of humour

to a message. GIFs are often used in text-based communication to add personality and emotion to a message, similar to how emojis are used (Tang, 2019). Like emojis, hundreds of other GIFs can convey many feelings and ideas. Some people also use GIFs to respond to a message or add visual interest to conversation. For example, to share her lack of money, Sella used a GIF of a woman feeling sad and thinking about having no money. This GIF also presents the painful emotion of having insufficient funds, as shown in Figure 6.6. This GIF seems to illustrate and strengthen her message that she does not have a big-enough budget to travel to Bali, which is far away, and where she would have to take a flight. GIFs have grown in popularity in social media, primarily due to their ability to communicate complex thoughts, feelings or reactions concisely, visually and humorously.

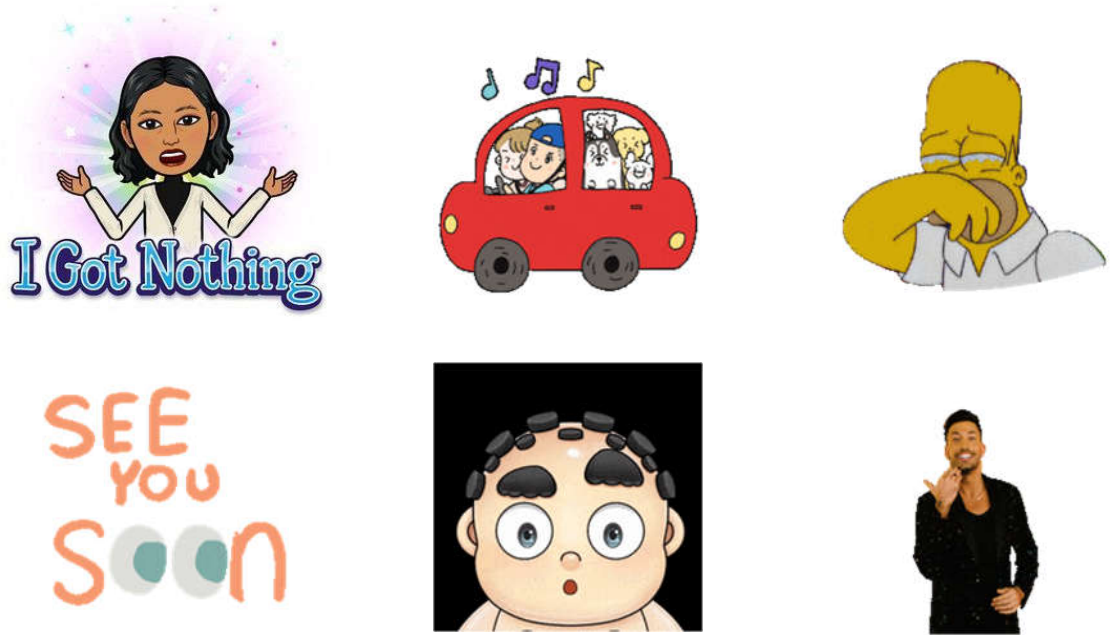
Figure 6.6

GIFs in Instagram Text Chat

GIFs have the special characteristic of their capacity to loop indefinitely, which allows for the repletion of a particular action or emotion. This can be a powerful tool in digital communication, amplifying the message being conveyed and enhancing its effect. In some cases, the looping nature of GIFs can also create a sense of continuity or infinity, contributing to their artistic or expressive effect (Church et al., 2023). Some GIFs that students used were, for example, an image with words, visualisation of activities like driving a car, a human action related to the emotion like crying or thinking, an animated sentence or a short video clip showing gestures, as shown in Figure 6.7. Many GIFs are derived from popular culture, such as animated movies and memes, that often add an implicit layer of meaning to communication.

Figure 6.7

Various GIFs Used by Students in Instagram Text Chat



The first function of GIFs in text chat conversation is as a co-speech demonstration. A GIF might work alongside the written message as a visual tool to strengthen or demonstrate the emotion that the text conveys (Tolins & Samermit, 2016). For example, Excerpt 6.5 shows the use of a GIF displaying a man folding his hands on his chest and acting like he is begging for something from someone to convey a lack of money. In this dialogue, Iliana (IL) and Fascia (FA) are discussing and coordinating packing a substantial load required for a trip or an expedition in Task 5. In turn 47, Iliana begins by observing that the weight of their items seems to have reached 12 kg. In turns 48–49, Fascia acknowledges this by expressing satisfaction in their judicious selection of essential items with double 👍 (thumbs-up emoji) for appreciating their cooperation and collaboration in selecting the items. She then signals her intention to itemise the packed inventory. In turns 50–54, Iliana promptly responds with an affirmation. She adds a few reminders, emphasising the necessity of including a stove, and ends with 😊 (smiling face with smiling eyes emoji) that might mean that stove was a vital tool for the adventure, especially for cooking rice. She also highlights the importance of not forgetting the pack of rice. Finally, Iliana requests that Fascia list items if the total reaches 12 kg; she also posts a GIF of a man folding his hands on his chest and acting like he is begging for something

from someone, which might mean for politely requesting help. In response, in turn 55, Fascia presents a detailed inventory, indicating the weight of each item for precise calculation. The list includes water bottles, large tents, dried sausages, boiled eggs, big knives, large box of bandages, mineral water and cooking pots.

Excerpt 6.5

GIF as a Co-Speech Demonstration

Lower-level actions Modal configuration: Written, GIF and emojis	**Higher-level action**
47. IL: It looks like it's already reached 12 kg	
48. FA: Yes, and we have chosen what is important 👍🏻 👍🏻	Content discussion
49. FA: Wait, I will list	
50. IL: Okayy	
51. IL: And we really need a stove 😊	
52. IL: Don't forget the rice	
53. IL: Please list FA if it reaches 12 kg	
54. IL: 	
55. FA: 1. 2 L bottles of water (2 kg) 2. 2 x large tents (2 kg) 3. 10 dried sausages (1/4 kg) 4. 10 boiled eggs (1/2 kg 5. 2 x big knives (1/4 kg) 6. a large box of bandages (1/4 kg) 7. 2 L bottle of mineral water (1 kg) 8. 2 x cooking pots (1/4 kg) 9. 2 kg rice 10. 5 plastic cups and plates (1/2 kg) 11. 5 stainless steel spoon forks (1/4 kg)	

The second function, 'GIFs as an affected response', helped the students convey a reaction in the format of a GIF towards a message or information in digital communication (Tolins &

Samermit, 2016): for example, in the use of a GIF showing a boy showing two thumbs-up with a smiling face and the word 'OK', as shown in Excerpt 6.6. This exchange involves a conversation between two individuals, Anny (AN) and Mahesh (MA), as they choose a destination for their holiday in Task 4. The conversation begins with Anny, in turn 25, expressing her desire not only to go for a walk but to have a picnic, as denoted by 🥺 (pleading-face emoji), portraying sadness. These reasons prompt Mahesh, in turns 26–27, to propose going to the mountain, where they could have a picnic and enjoy the sunrise. In turns 28–29, Anny expresses her approval of the plan with a GIF of a boy showing two thumbs-up with a smiling face and the word 'OK', signalling her happiness and agreement. She also confirms the idea as a good choice with 😁 (grinning face with smiling eyes emoji). This moment of consensus shifts the conversation towards finalising the details. Mahesh inquires in turn 30 about the mountain they will visit, indicating that he has some recommendations in mind. Anny responds in turn 32 with a willing attitude to follow Mahesh's guidance, as denoted by the same 😁 (grinning face with smiling eyes emoji). Anny then enquires about Mahesh's advice in turn 33 with 🤗 (hugging-face emoji), displaying excitement about knowing the name of the suggested mountains. Finally, in turn 34, Mahesh concludes the exchange by offering two possible mountains for their adventure: Lawu and Sumbing Mountain, turning the abstract plan into something concrete.

Excerpt 6.6

GIF as an Affected Response

Lower-level actions Modal configuration: Written, GIF and emojis	**Higher-level action**
25. AN: Sooo, what are we doing there? Just a walk? I want a picnic, too 🥺	Content discussion
26. MA: So, we just go to a mountain	
27. MA: We can picnic and enjoy the sunrise	
28. AN: 	
29. AN: I think it's a good plan 😁	
30. MA: So, what mountain will we climb?	
31. MA: I have some advice	

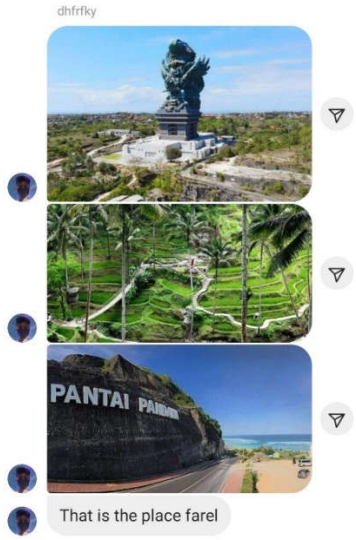
32. AN: If that's the case, I'll just follow you 😁
33. AN: Reply to 31> What's that? 🤗
34. MA: Lawu mountain and Sumbing mountain

6.2.4 Images

Images in text chats serve as a digital form of visual aid within online or text-based communication. Images can be used to convey a wide range of ideas, emotions and information, which are often used to supplement or enhance the text's intended meaning (Wang et al., 2016). The types of images incorporated within text chat are manifold, including photographs, screenshots, graphics and other forms of visual media. These images can prove instrumental in communicating information or ideas that might be challenging to convey using text alone. For example, Dhaval employed photographs of notable landmarks and scenic locales in Bali, such as the Garuda Vishnu Kencana statue, the lush rice terraces and the picturesque beaches of south Bali during the Task 4 session. This allowed him to provide a vivid visual description of the tourist destination he was proposing, enhancing the effectiveness of his pitch, as shown in Figure 6.8.

Figure 6.8

Images in Instagram Text Chat



During their interactions in Task 4, the students employed visual imagery as a powerful communicative tool to supplement, enhance or even replace verbal communication. For

example, as shown in Figure 6.9, Appy used a screenshot illustrating assorted photographs of renowned landmarks in a specific tourist destination, as seen in image A. By presenting these images to her interlocutor, Appy attempted to strengthen her idea related to the fun activities that could be undertaken at the proposed destination. Likewise, another student, Amy, also posted a screenshot of a tourist destination taken from Google Maps to showcase the geographical location, visual depiction and review scores from visitors to persuade her conversation partner, as shown in image B. Furthermore, Sella leveraged an image to visually clarify flight-ticket prices sourced from the Traveloka application (a well-known online travel and ticketing company in Indonesia). This image evidenced the cost associated with their proposed trip to Bali, in which she recommended a vacation spot, as shown in image C. With the wealth of data readily accessible online, students can easily employ images to facilitate mutual understanding and reach an agreement within the text chat (Qi & Wang, 2017).

Figure 6.9

Various Images Used by Students in Instagram Text Chat

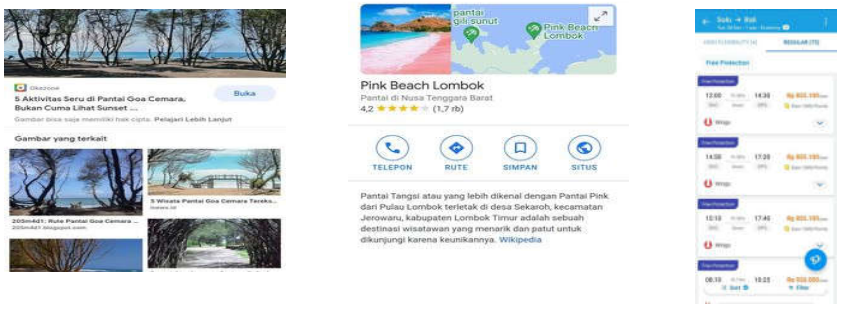


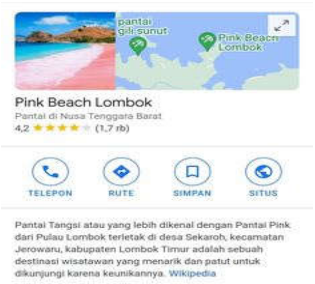
Image A **Image B** **Image C**

In this study, the images mainly contextualised and added information with visuals: for example, in the conversation between Bevy (BV) and Amy (AM) shown in Excerpt 6.7. This dialogue was taken from Task 4, where the students were required to select a tourist destination for their holiday. In turns 15–16, BV suggests a trip to Pink Beach, expressing her fondness for the location and describing it as 'very cute' with 🥰 (smiling face with hearts emoji). In response to the suggested destination, in turns 17–20, Amy seems to have discovered information about the pink beach by searching for it on Google Maps; after finding the beach, she screenshots it and posts it to the discussion page. Amy requests confirmation by asking

whether the screenshot posted refers to the same beach. Amy echoes Bevy's sentiment about the beauty of the beach, affirming its appeal with double ❤️ (red-heart emoji). Amy then declares a consensus that they should visit the beach in Lombok. In turn 21, Bevy confirms Amy's understanding, indicating that they are referring to the same beach with an affirmative statement and 😍 (smiling face with heart-shaped eyes emoji). The student uses images in this conversation to contextualise and add information with visual elements.

Excerpt 6.7

Image for Adding Information

Lower-level actions Modal configuration: Written, emojis and image	**Higher-level action**
15. BV: Or go to Pink Beach? 16. BV: I think pink beach its very cute 🥰 17. AM:  18. AM: Do you mean this beach right? 19. AM: Yeah, it's very beautiful ❤️ ❤️ 20. AM: So, let's go to that beach in Lombok. 21. BV: Yeah, this right 😍	Negotiation of meaning

6.2.5 Gestures

Gestures are integral to video communication, supplementing and enhancing the verbally spoken discourse to create a more dynamic and nuanced conversation. They contribute significantly to the richness of human communication, offering a visual channel that can transmit additional information, express emotion or clarify the meaning of verbal messages (Lee et al., 2019). One of the most significant roles of gestures in video calls involves offering nonverbal signals that can signal positive emotion and elucidate messages in spoken communication. For example, Dhaval waves his hand towards the camera, enabling his

conversation partner, Yuliana, to discern his congenial signal concurrently with his verbal greeting, as illustrated in Figure 6.10A. Hand-waving gestures have been commonly employed for salutations when there is a spatial separation between the interlocutors, particularly in video-call scenarios. Despite their virtual proximity, there is an inherent physical and psychological distance between the speakers, potentially prompting hand-waving gestures to cultivate a cordial conversation. It seems that hand-waving gestures could serve a regulatory function to signal a friendly environment and a desire to speak in video call conversations.

Another gesture example was demonstrated by Anny during her interaction with Putri for completing Task 3, as shown in image B; Anny uses a distinctive iconic hand gesture showing her thumb, index and pinkie fingers extended outward. By contrast, her middle and ring fingers are curled towards her palm, mirroring the hand gesture of Spiderman when acting out a web-shooting. In this case, she attempts to supplement her verbal description with the visual aid of her hand gestures. Thus, her interlocutor can readily comprehend and identify the character she describes.

Figure 6.10

Gestures in an Instagram Video Call

Image A **Image B**

In addition to the above examples, the students used many other gestural demonstrations during video calls, as depicted in Figure 6.11. Predominantly, students employed two significant classifications of gestures during these virtual conversations: iconic, deictic and beat gestures, with most being iconic gestures. For example, Ahsan makes a fist and thrusts his wrist forward as though pushing an object, as demonstrated in image A. He makes this gesture when

attempting to describe a video in Task 8 in which an older woman is pushing a vending-machine door because the cookie she bought was stuck in the machine. In image B, another student, Anny, displays the gesture of a raised, bent arm and shoulder, indicative of physical strength. This gesture aims to add a visual explanation for the interlocutor when she describes a fictional character: a strong human with big muscles. Another student, Chika, positions her thumb and index finger on her chin while thinking to guess the fictional character described by her interlocutor, as shown in image C. This gesture conveys that she is trying to search her memories to find the intended character's name before she guesses it. Ryan directs his index finger towards the screen in the last image, D, in a gesture showing that he is giving the turn-taking time to his conversational partner. From the example above, it can be concluded that images A, B and C represent iconic gestures, while image D is deictic. These examples underscore the extensive use and diverse range of gestural communication during video calls. The following section will further discuss the types of gestures performed by students.

Figure 6.11

Various Gestures Used by Students in Instagram Video Chat

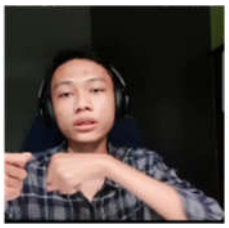


Image A

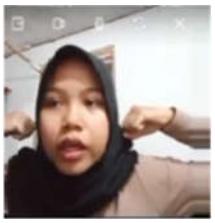


Image B

Image C

Image D

Students participating in this study were found to employ various types of gestures, including iconic, deictic and beat gestures, in their CMC task interaction. For example, Excerpt 6.8 displays an iconic gesture: the students use this gesture to negotiate a target word. An *iconic gesture* is a hand movement that visually represents or relates the connection to the object or actions conveyed in the conversation (McNeill, 2012). Rhone (RH) initiates a guessing game by describing a character in this episode. In turn 44, Rhone explains that the character is a teenager in love with a girl from a different caste and finds a magical teapot lamp, commonly known as a 'magic lamp'. He also tries to check the understanding of his interlocutor, Appy (AP). In turn 45, Appy affirms 'yes', showing that she understood Rhone's check. In line 46, Rhone continues his description, explaining that, when he rubbed the teapot lamp, he released

a genie. The genie then granted him three wishes. At the end of this utterance, Rhone poses another question, 'Who am I?' This is an invitation for Appy to guess the character based on the clues provided. In turn 47, Appy repeats one of the clues: the phrase 'three wishes', likely indicating that she is trying to piece together the information Rhone gave her to figure out the character's identity. In turn 49, Rhone confirms Appy's echo of the clue with a simple 'Yeah', encouraging him to guess the character. Appy finally makes a guess in line 49, correctly identifying the character as Aladdin. Rhone affirms Appy's guess in line 50 with an enthusiastic 'Yes, you right, right'. The question at the end confirms AP's correct answer and concludes the playful guessing game between the two. The iconic rubbing of the teapot lamp gesture is used to clarify the meaning that can visually represent the content of the speech so that it makes the interlocutor easier to understand. The iconic gesture also enriches communication by providing additional information alongside verbal speech.

Excerpt 6.8

Iconic Gestures

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
44. RH: I am a teenager who fell in love with a girl from a different caste. I also found a teapot lamp, you know, teapot lamp?	Negotiation of target word
45. AP: Yes,	
46. RH: And then I stroked the teapot lamp like this, and genie came out to me, so he gave me uhm three wishes, three wishes, who am I?	
47. AP: Three wishes?	
48. RH: Yeah.	
49. AP: Aladdin.	
50. RH: Yes, you right, right.	

Nonverbal cues:
RH: He looks up at the screen while describing the character's cue. He moves his hand close to the screen and makes a movement as if rubbing an object. He shows three fingers to the camera.
AP: She looks up at the screen while touching her eye with her finger and showing an attentive face. She still looks up at the screen and pays attention to the description.

Another type of gesture is deictic; an example of this type of gesture is illustrated in Excerpt 6.9. A *deictic gesture* is a pointing hand movement that indicates a person, object, direction or location that helps orient the listener to a particular object relevant to the conversation (McNeill, 2012). In this conversation, Bella (BE), Sella (SE) and Yuliana (YU) are discussing Task 8, in which the students were required collaboratively to construct a story from six pictures assigned randomly to them. In turn 8, Bella initiates the discussion by outlining their task instruction. In turn 9, Sella responds with a question, seeking clarification on approaching this task. This highlights the need for further instructions to ensure that everyone is on the same page about completing the task. In responded to Sella's question, Bella provides more detailed instructions in turn 10. This process involves describing their pictures and arranging them in a sequence that forms a complete story. Bella's repetition of the word 'complete' emphasises the importance of creating a cohesive narrative from the pictures. In turn 11, Yuliana seeks clarification on the order of task participation. This indicates an eagerness to commence the task and reinforces the collaborative nature of the activity. In turn 12, Sella volunteers to go first, showing readiness to begin the task, and touches her chest with her hand. This gesture shows her willingness to start to describe the picture voluntarily. This decision seems to be readily accepted by the group, as Yuliana affirms with a simple 'OK' in turn 13. This excerpt shows the use of gesture, touching the chest, as a nonverbal way of displaying willingness to start the task in task-management episodes. This gesture adds a layer of communication beyond verbal exchanges, reinforcing the commitment of the student to completing the task.

Excerpt 6.9

Deictic Gestures

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	Higher-level action
8. BE: This time we must do Task 9, which is construct a story from six pictures, guys. 9. SE: Oh, OK, now how we do it? 10. BE: First, describing our picture. After that, we shot them until becoming a complete, uhm, complete story. 11. YU: OK, BE. Who will describing first? 12. SE: I will go first. 13. YU: OK	Task management
 YU SE BE Nonverbal cues: BE: She looks up at the screen and pays attention to her conversational partners. SE: She looks up at the screen and touches her chest with her open hand while saying, 'I will go first'. YU: She looks up at the screen and sometimes under the screen.	

The last type of gesture observed in this study is the *beat gesture*: a small rhythmic hand movement with no specific semantic meaning. It is used to emphasise or beat the rhythm of speech, which often aligns with the stress of essential points in the discourse (McNeill, 2012). In this dialogue in Excerpt 6.10, Dhaval (DH) and Yuliana (YU) engage in ordering the events of a story or a sequence of events, possibly from the videos. In turn 33, Dhaval talks about an elderly woman, referred to as 'Grandma'. Dhaval elaborates on the narrative of Grandma's becoming frustrated with men's behaviour, escalating to the point where she becomes angry. This sets a clear emotional tone and provides insight into Grandma's mind. The narrative then shifts to a scene on a train: Grandma discovers a bag containing her biscuits. Dhaval accidentally uses gestures to indicate this is a surprise in the storyline. While describing these events, Dhaval often rhythmically moves his hand in front of the screen to align with his

explanation. Yuliana affirms their understanding with a simple ‘Okay’ in turn 34. This response is likely intended to indicate her attentiveness to the narrative and readiness to continue listening to the unfolding story. In turn 35, Dhaval continues with the narrative, describing how Grandma recalls a past incident upon discovering the biscuits. Yuliana, in turn 36, signals her comprehension and encourages the continuation of the narrative with a concise ‘Okay’. The story takes an unexpected turn in turn 37, as Dhaval reveals a surprising twist. Grandma and the man from the previous incident share a common item: the same type of biscuits. Dhaval realises the significance of this connection and seems to correct himself mid-sentence, possibly to ensure that he delivers the revelation effectively. Dhaval then concludes his account, assuring Yuliana that he has finished recounting this part of the narrative with the phrase ‘enough, enough’. He uses a beat gesture to help regulate the rhythm and pace of speech, indicating the changes in tempo or pauses. A beat gesture also often underlines key points in spoken language or emphasises certain words or phrases that can highlight the importance of what is being said.

Excerpt 6.10

Beat Gestures

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
33. DH: Grandma was annoyed to seeing men’s attitude and finally she got angry, uhm, OK, for the next. Uhm, the fourth video it shows that after Grandma sat off on the train, yeah, she accidentally saw a bag containing her biscuit.	Content discussion
34. YU: Okay.	
35. DH: And then the grandma was surprised by remembering the incident when she was sitting alone with a man.	
36. YU: Okay.	
37. DH: It turns out that she relies, sorry, sorry YU, it turned out the grandma and the man had the same biscuit, OK, enough, enough.	

Nonverbal cues:

DH: He looks up at the screen while moving his hands in front of the screen rhythmically, aligning with his narration of the events.

YU: She looks up at the screen while paying attention to the description.

6.2.6 Facial expressions

Facial expressions are an essential facet of communication within video call context, functioning as potent nonverbal indicators that substantively influence the interpretation of the conveyed messages. They can convey a spectrum of emotions and attitudes, adding depth to the verbal language used. One critical role of facial expressions in video calls is to express feelings ranging from happiness, indicated by a smile, to concern, which is often depicted through a focused facial expression. By observing these expressions, students in the video call can gain insights into the speaker's emotional state, which can influence the interpretation of verbal messages. For example, Panji, in Figure 6.12, alternates his facial expression synchronously with the evolving dynamic of the dialogue during his conversation with his interlocutor when completing the Task 3 sessions. Image A illustrates him exhibiting a concentrated facial expression whilst listening to the description or explanation proffered by his conversation partner, while, in image B, he modifies his facial expression into a smile when he feels he knows the character's name that his partner is describing. He tried to guess the character's name and feels confident that the name he says is correct, showing a slight smile and a happy face. In image C, he breaks into a full smile, manifesting signs of joy when he can finally guess the character's name successfully, and he seems satisfied with his effort. The dynamic changing of students' facial expressions indicates that facial expressions can link to a student's cognitive process and emotional state during the interaction. It also signals to the

interlocutors whether the conversation is in a good flow or not. Concerning turn-taking, it also signals to the interlocutors whether or not to continue the conversation.

Figure 6.12

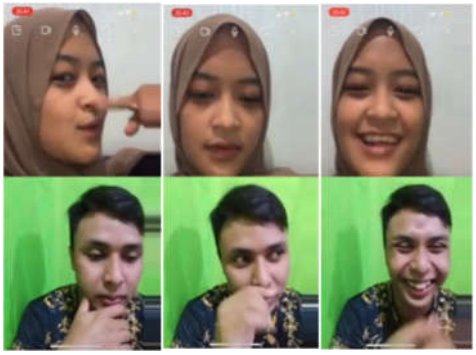
Facial Expressions in an Instagram Video Call

Image A **Image B** **Image C**

The predominant function of facial expression in this study was to express emotion. As shown in Excerpt 6.11, Bevy (BV) and Ryan (RY) are discussing Task 3, describing and guessing the names of fictional characters in this episode. In turn 67, Bevy introduces the clue, describing a wooden doll with a sharp nose, and points to her nose with her finger. This gesture seemingly aims to prompt Ryan into recognising the intended character. Responding to Bevy's cue, in turn 68, Ryan quickly guesses the character's name as 'Pinocchio', a well-known wooden puppet character from children's literature whose nose grows longer each time he tells a lie. This character might fit Ryan's guess, considering the given description. In an unexpected turn, during turn 69, Bevy initially denies Ryan's guess with a brief 'No', prompting Ryan to restate the clue in disbelief, as indicated by his questioning facial expression while looking at the left side of the screen, in turn 70. Bevy revises her previous response, however, realising her mistake; she affirms RY's correct guess with 'Wait wait, oh yes yes sorry sorry' in turn 71. Ryan confirms the character as 'Pinocchio' again in turn 72. Finally, in turn 73, Bevy acknowledges the correct guess and suggests that it is now Ryan's turn to provide a clue, continuing their game by saying, 'Pinocchio right and then you you' while showing a laughing and happy face. RY also mimicked a positive facial expression, a laughing and happy face. This excerpt reveals that students' facial expressions provide rich nonverbal information related to the dynamic change of their emotion during the negotiation of target words episode that complements and emphasises the spoken words.

Excerpt 6.11

Facial Expressions

Lower-level actions Modal configuration: Verbal (spoken), facial expressions and gestures	**Higher-level action**
67. BV: And me, yeah. Wooden doll, you know, with sharp nose; his nose is sharp but not you. 68. RY: Uhm, Pinocchio. 69. BV: No. 70. RY: Wooden doll? 71. BV: Wait wait, oh yes, yes, sorry, sorry. 72. RY: Ah, Pinocchio. 73. BV: Pinocchio, right, and then you, you.  <u>Nonverbal cues:</u> BV: She looks up at the screen while moving her head to the right side and putting her index finger to her nose. She looks up at the screen while paying serious attention to her partner. She laughs, aligning with her partner's laugh. RY: He looks up at the screen seriously while his hand touches his chin. He looks up at the left side of the screen, showing a thinking face and touching his nose, mimicking his partner's gesture. He laughs after knowing that his answer is correct.	Negotiation of target word

Students often use the combination of gestures and facial expressions to negotiate meaning during task interactions. For example, as shown in Excerpt 6.12, Anny (AN) started by providing verbal cues about a character from a Marvel movie. She described the character's costume and mentioned specific attributes like the blue costume and red cape. Putri (PU) responded by guessing if the character was Cinderella. Recognizing that Putri did not

understand the clues, Anny provided additional hints by showing a hand gesture as if holding something and making a facial expression of seriously hitting something with a hammer. She further emphasised this by moving her gesture back and forth and repeatedly mentioning iron armour and hammer. Putri's facial expressions changed, and she mimicked this action with a joyful smile, indicating that she understood Anny's messages. Finally, Putri correctly guessed by saying "oh Thor" with a smile and recognising the character based on the additional clues. Anny responded with laughter and a happy expression.

Excerpt 6.12

The Combination of Gestures and Facial Expressions

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
34. AN: OK, next character, the character in Marvel movie, he is very popular, his custom is blue, and he wears a red cape, 35. PU: Is this Cinderella?  36. AN: No, he wears an iron armour and also bring hammer, hammer, with hammer 37. PU: Oh Thor 38. AN: Yeah, this is true.  <u>Nonverbal cues:</u> AN: She looks up at the screen and shows a gesture as if she is holding something. She also moves it back and forth. She laughs upon seeing Putri mirroring her gesture. PU: She replicates Anny's gesture while smiling at the screen and saying 'Oh Thor'.	Negotiation of target words

6.2.7 Gaze

Gaze, usually indicated by the direction of one's eyes, fulfils numerous communicative roles and is critical to nonverbal behaviour in virtual interactions. Within video call context, gazes can simulate eye contact, mirroring the dynamics of FTF exchanges. In addition, to signal engagement, gaze behaviour can also manage turn-taking during video calls. For example, Revan shifts away his eyes from the camera either to the right or left side while formulating thoughts and then reorients his gaze back to the camera when he concludes his point, signalling to his partner, Yuliana, that it is her turn to speak, as shown in Figure 6.13 A, B and C, whilst, at another point, Yuliana persistently gazes directly into the camera, indicating that she is engaged and comprehending. She maintains constant eye contact with the camera/screen to ensure continued engagement and focus on the conversation, as illustrated in images A, B and C. When students look directly into the screen, it can be perceived as direct eye contact, signalling engagement and attentiveness to other participants. Conversely, a participant looking away from the camera may be perceived as distracted or disengaged (Satar, 2013). In the first case of Revan, however, he shifts his gaze not because he is not engaged in the conversation but because he wants to search his memory to find the targeted words. Looking away for a short time might not indicate disengagement.

Figure 6.13

Gaze in an Instagram Video Call

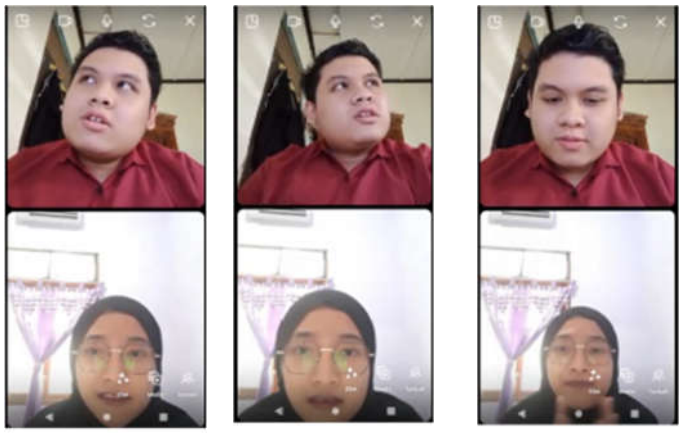


Image A **Image B** **Image C**

6.2.8 Proxemics

Proxemics, within the context of communication, is commonly associated with spatial separation between individuals during interpersonal or FTF interactions (Sousa et al., 2016). *Proxemics*, in this video chat context, pertains to how participants orient themselves concerning their perspective cameras in video calls. This strategic positioning can emit a multitude of nonverbal cues. For example, many students were found to adjust their body or head positioning either nearer to or further from the camera. Fascia, for example, navigated her head closer to the camera while describing the pictures assigned to her in the Task 9 session, as illustrated in Figure 6.14. This action might have been her endeavouring to foster a heightened level of engagement in the dialogue while ensuring that her voice was sufficiently loud for the device reception, given her lack of a headset or microphone, as depicted in image A. Conversely, Fascia might have oriented herself away from the camera or in a standard position that allowed her body to be fully encompassed within the screen's frame, providing her with adequate space to make hand gestures, as shown in image B.

Figure 6.14

Proxemics in an Instagram Video Call

Image A **Image B**

6.3 Higher-level actions

This section examines how students employed multiple modes to build a specific higher-level action in the CMC task interaction. Following the definition of *higher-level action* in Chapter 5, Section 5.1.1, this analysis will stratify the higher-level action to identify the interplay of lower-level actions within a bigger interaction element in completing the task. To identify the higher-level action performed by students during CMC task interaction, this process will be guided by the categorisation frameworks proposed by Liang (2010) and Hampel and Stickler

(2012) related to the discourse function in online task interaction, which include parameters like social interaction (task opening and task closing), on-task negotiation of meaning (negotiation of meaning, negotiation of target words and negotiation of agreement), off-task conversation, technical discussion, task management, error correction and content discussion. Table 6.3 shows the number of higher-level actions performed by students during their CMC task interactions through Instagram. The following section will explain how the students use the interplay of verbal and nonverbal cues to foster communication and the possible meaning conveyed using these multimodal cues.

Table 6.1

Number of Higher-Level Actions

Higher-level action	**Task**								
	1	2	3	4	5	6	7	8	9
Task opening	44	29	35	54	47	52	55	58	64
Task closing	29	31	41	50	58	44	42	54	48
Negotiation of meaning	0	0	46	0	0	2	0	2	17
Negotiation of agreement	24	0	0	27	26	5	1	22	19
Negotiation of target words	0	0	54	0	0	0	0	0	2
Content discussion	325	125	576	398	534	199	249	262	323
Task management	9	5	24	7	17	5	6	76	54
Technical action	4	5	0	0	9	3	0	0	3
Error correction	3	0	3	1	2	0	0	0	3
Off-task conversation	4	8	0	20	18	0	0	0	0

6.3.1 Task opening

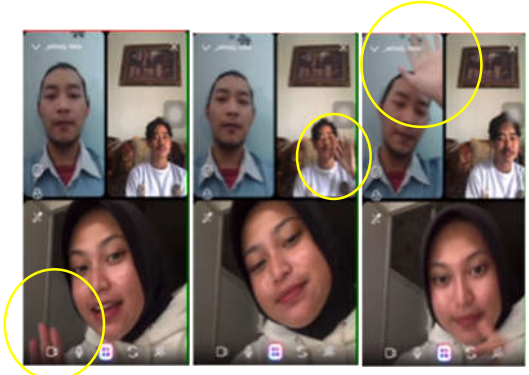
Task opening might be the most obvious higher-level action explaining how the students use multimodal cues to foster English communication during the CMC task. The use of nonverbal cues to build a friendly environment in task opening during online video chat interaction is very similar to what takes place in FTF conversation. Excerpt 6.13 shows a task opening that occurred in the Task 9 session. This task required students to arrange random pictures to construct a complete story, and each participant got two random pictures. This task was done

in a group of three: Gaby (GA), Adam (AD) and Frank (FK). In the beginning, Gaby, in turn 1, initiates a friendly dialogue in this conversation by greeting the group and inquiring about their well-being with a smiling face and hand-waving gesture. In turns 2–3, Adam and Frank respond positively by showing their hands waving. This indicates that they are doing well, and Frank reciprocates the inquiry by asking about Gaby's well-being. In turn 4, Gaby confirms that she is also doing fine and promptly shifts the conversation towards their shared task, ensuring that Adam and Frank know they are on Task 9. In turns 5–6, Frank and Adam acknowledge Gaby's statement, confirming that they are on Task 9. Frank acknowledges the reminder with a simple affirmation, while Adam responds with 'All right'. In this case, Gaby initiates the interaction with pleasantries by showing a smile and friendly gestures. She sets her position close to the screen. Thus, she can see the screen closely, and her face is visible to her interlocutors. This interaction highlights the use of nonverbal gestures, proxemics, gaze and facial expressions to help the interlocutors feel more familiar with each other and manage the interaction well because they have started the conversation with a friendly emotional signal (Kelly & Ngo Tran, 2023).

Excerpt 6.13

Task Opening in Video Chat

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
1. GA: Hi guys, how are you today? 2. AD: Hello, I'm fine. 3. FK: I'm fine, too, how about you? 4. GA: Yeah, I'm fine, too. So, AD and FK, we are today in Task 9, right? 5. FK: Yes. 6. AD: All right.	Task opening



Nonverbal cues:
GA: She smiles at the screen and waves her hand, saying, 'Hi, guys'. She positions her face close to the screen so her interlocutors can see her. She still looks at the screen in the second and third images and pays attention to her interlocutors.
AD: He looks up at the screen thoughtfully and responds to GA's greeting by waving his hand while replying, 'Hello'.
FK: He looks up at the screen seriously and responds to GA's greeting by waving his hand while answering, 'I'm fine too'.

6.3.2 Task management

Nonverbal cues also helped manage the task flow. For example, as shown in Excerpt 6.14, students discussed the reasoning gap task in a group of three: Rose (RO), Mahesh (MA) and Yuliana (YU), using the text channel on Instagram. In this task, they had to choose from a list 12 kilograms of contents for a survival kit to take to a rural area and explain the reason for their choices. In turns 4–5, Mahesh begins task management by reorienting the instruction for the Task 4 session. He then posts a sentence that they should choose the kinds of things they needed to take to rural areas. Rose, in turn 6, agrees with Mahesh by posting 'Okay MA' and adds 👌 (OK hand sign emoji) to symbolise her acknowledgment and approval. In turns 7–8, Yuliana explores the rule mentioned by Mahesh that they can bring only 12 kilograms. She adds that each person can get four kilograms of the items. In turns 9–11, Mahesh agrees with Yuliana by posting 'Okay' and adds 👌 (OK hand sign emoji), mirroring RO's earlier approval and readiness to proceed. He asks what the first item they have to bring is and requests that Yuliana start it. In turn 12, Yuliana responds that she would think about it and make a list before sharing it with the group. She adds 😬 (grimacing-face emoji) to indicate slight embarrassment, suggesting that she is not ready yet to share her intended items. In turns 13–14, Mahesh agrees to wait and says that he will also make a list first before sharing it with the group chat; he adds 😅 (grinning face with sweat emoji) as a representation of his slight awkwardness because he has not yet made a list of the items, either. Finally, in turn 15, Yuliana asks Rose to post her preference for the contents of the survival kits with 😃 (grinning face with big eyes emoji),

👍 and 👍 (thumbs up emoji), which shows positive encouragement to Rose for starting to share her list of survival-kit items. From this conversation, it seems that Mahesh has employed the 👌 emoji to convey his positive agreement with the task suggested by Rose. The use of the 😬 and 😅 emojis by Yuliana and Mahesh suggests slight embarrassment. This feeling arises from their lack of preparedness to promptly name the survival-kit items necessary for their forthcoming journey. Yuliana uses a combination of 😀 and 👍 emojis, maintaining an overall positive encouragement and non-pressuring tone throughout the following task conversation. According to Al Rashdi (2018), the 👌 and 👍 emojis often used to endorse and acknowledge other interlocutor's participation during text-chat interaction, so that, in this case, the process of task load management was well distributed to all participants.

Excerpt 6.14

Task Management in Text Chat

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
4. MA: We have task 4 for today 5. MA: We have to choose what stuff should we bring 6. RO: Okay MA 👌 7. YU: Yes, we have to select and bring 12 kg survival kits from the list to continue our journey to the nearest village guys. 8. YU: Because we are three people so one person can bring 4 kg stuff. 9. MA: Okay 👌 10. MA: What's first item we must bring? 11. MA: From you YU 12. YU: Wait MA, I have to list first he he 😬 13. MA: Okay YU 14. MA: I will list the item too 😅 15. YU: RO u can go first 😀 👍 👍	Task management

6.3.3 Negotiation of meaning

In Excerpt 6.15, students employ gestures, facial expressions and proxemics to foster the negotiation of meaning during their online video chat conversation. For example, in this excerpt, Sari (SA) and Altaf (AL) are engaged in the discussion to complete Task 9, which asks students to arrange jumbled pictures into a logical sequence. At the beginning of this excerpt, Sari, in turn 26, continues to describe a scene in picture E featuring an individual taking a stroll down a street. Transitioning to picture F, she further notes that a student was carrying a bag. Sari continues the description by explaining that the 'dog grabbed the student'; she tries to visualise it by moving her hand towards her chest with all her fingers spread wide. This statement appears confusing, however, as Altaf, in turn 27, responds with a surprised and questioning, 'What? What?' while leaning closer to the screen and showing a questioning facial expression. In response to his confusion, at turn 28, Sari shows a surprised facial expression, her eyes widening and slightly smiling as she asks, 'Do you know what I mean?' She further tries to clarify what she means by saying 'attack her, attacked his, attacked him'. It seems that she is using the term 'attack' to describe the dog's behaviour towards the student. She repeats that word multiple times, however, as she attempts to find the proper pronoun, 'him', that suits the situation. Whilst repeating the word 'attack' numerous times, she also mimics an attacking motion, with her opened hand moving closer to her face. Following her clarification, in turn 29, Altaf expresses understanding with a smile and an affirmation: 'Oh yes, yes attack, attack him'. In turn 30, Sari confirms this understanding with a straightforward 'Yes, like that', and rounds off the discussion with a final 'it's enough', indicating that her description of the assigned pictures is done.

Excerpt 6.15

Negotiation of Meaning in Video Chat

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
26. SA: Walking in the street, like, have fun, then the picture of F, there is maybe student, who . . . bring the bag and the dog grab the student . . .	Negotiation of meaning
27. AL: What? What?	

28. SA: Do you know what I mean? Like attack her, attack his, attack him.
29. AL: Oh yes, yes, attack, attack him.
30. SA: Yes, like that, it's enough.

Nonverbal cues:

SA: She looks down at the screen whilst describing picture F and moves her hand towards her chest with her fingers spread wide. She looks at the screen with a surprised face and a slight smile. She looks up at the ceiling and shows an attack action, with her hand moving towards her face.

AL: He looks at the screen and listens to SA's description. He leans closer to the screen with a questioning face. He looks up at the screen and smiles, signalling his comprehension.

6.3.4 Negotiation of agreement

Emojis seem to enable students to negotiate an agreement with less pressure and in fun ways. Excerpt 6.16 exemplifies how the students employed emojis to bring fun into the discussion to reach an agreement. In this excerpt, Revan (RE), Putri (PU) and Ikeas (IK) are required to select 12 kg of survival items that could help them on a four-day trip in a remote village in the middle of a rainforest on Borneo Island, Indonesia. In turn 20, Revan proposes a list of items for a survival scenario. He suggests 2 kilograms of white rice as a food source, two large tents for shelter, three torches with batteries for lighting and a two-litre bottle of mineral water for hydration. He solicits the opinion of his peers on his proposed list. In response, in turn 21, Putri suggests adding instant noodles along with coffee or tea to the list and ends this post with multiple 😂 (face with tears of joy emoji), indicating a mild self-mockery of her own suggestion of rice or instant noodles, which makes her seem like she has the mindset of a type

of older Indonesian person who could not live without eating rice or noodles as their staple food. In turn 22, however, Revan counters this proposal, emphasising the need for more substantial items that could sustain the group for the entire trip duration with a 😫 (tired-face emoji), indicating that, without rice or noodles, they could still survive. Ikeas, in turn 23, concurs with Revan's perspective and suggests adding 10 boiled eggs to their supplies so that they could last longer. In turn 24, Revan seeks Putri's opinion on these suggestions, showing interest in reaching a consensus with a 🤔 (thinking-face emoji), indicating that he still questions his proposal. In response, Putri, in turn 25, agrees with the need for practical items. She still insists, however, on her idea of bringing rice and a stove for cooking it with a humorous tone, as indicated by a 😂 (face with tears of joy emoji). The employment of emojis in this negotiation of the agreement process shows the participants' acceptance of each other's contributions while maintaining their own active involvement.

Additionally, emojis are valuable tools to ensure a smooth flow of negotiation, enhancing the overall excitement and reducing any potential pressure associated with the negotiation. Therefore, the process progresses seamlessly, eventually leading to a mutual agreement. Furthermore, the use of emojis helps to maintain a positive and friendly atmosphere throughout the negotiation, which is essential for fostering effective communication (Al Rashdi, 2018).

Excerpt 6.16

Negotiation of an Agreement in Text Chat

Lower-level actions Modal configuration: Written and emojis	**Higher-level action**
20. RE: I recommend bringing items such as: 2 kg of white rice. Because to eat. 2 x large tents. Because for where we sleep. 3 torches with batteries. Because to illuminate our journey when it is dark. 2 L bottle of mineral water. Because for us to drink. That's all I can think of what do you think?	Negotiation of agreement
21. PU: Reply to 19> Later we will bring instant noodles with coffee or tea 😂 😂 😂 😂	

22. RE: That's good but for now, I don't agree with that. We have to think of an item that can help us to last for 4 days. 😫 😫 😫
23. IK: Reply to 20> Yes, I agree with you. Added with 10 boiled eggs.
24. RE: What about you PU, are you agree with our suggestion? 🤔
25. PU: Reply to 20> Yes, I agree that it, added with a cooking stove, to cook rice 😂

6.3.5 Negotiation of target words

Consistent with previous examples, gestures also functioned as an aid in clarifying the process of recalling a word in this interaction. Excerpt 6.17 illustrates a lively conversation between Bella (BE) and Mahesh (MA) as they work on Task 3, a guessing game revolving around the names of fictional characters. In turn 39, Bella attempts to describe a character from the Marvel movies. She starts by hinting that this character is a companion of Iron Man. Just as she is about to provide more details, in turn 40, Mahesh interjects with a simple acknowledgement. Continuing with her description, in turn 41, Bella mentions that the character has a picture of stars on his clothing while pointing to her chest using her index finger. She further reveals that the character uses something as a defensive tool while she moves her fist closer to her face. Catching on to these clues, in turn 42, Mahesh inquires whether this character uses a shield. In turn 43, Bella enthusiastically confirms this by saying, 'yeah, yeah, like this' and circles her finger in the air to mimic the round shape of a shield. With these hints at hand, in turn 44, Mahesh correctly identifies the character as Captain America, owing to his distinct star-spangled attire and iconic shield. In turn 45, Bella affirms this guess with an excited 'yes, right, yeah yeah yeah, you are right', punctuating the successful completion of the guessing game with a big smile. In this case, gestures play a significant role in fostering mutual comprehension by visually expressing the semantic content of certain words or phrases that students may struggle to remember or articulate effectively. These gestures can assist in triggering memory recall related to a character, as noted by Seo (2021).

Excerpt 6.17

Negotiation of Target Words in Video Chat

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
39. BE: OK, the last one, this is from Marvel movies again, and he's a hero, he is . . . uhm, Iron Man's friend, he has a . . . 40. MA: Yeah. 41. BE: A picture star in his clothes, and he has . . . to protect him. 42. MA: He used a shield? 43. BE: Yeah, yeah, like this. 44. MA: Uhm, Captain America. 45. BE: Yes, right, yeah yeah yeah, you are right.  <u>Nonverbal cues:</u> BE: She looks up at the screen, then points to her chest using her index finger, saying, 'A picture star in his clothes'. She moves her fist close to her face. She still looks at the screen while creating a circular or round shape using her finger and hand when she says, 'yeah, like this' and stops her speech and gesture with a smile. MA: He looks up at the screen while paying attention to Bella's description and moves his head closer to the screen while trying to focus on understanding Bella's gestures. He smiles slightly while attempting to guess the character's name.	Negotiation of target words

6.3.6 Content discussion

The nonverbal cues of emojis and GIFs also played an essential role in fostering content discussion when students attempted to complete Task 5, as shown in Excerpt 6.18. This task suggested that students, in this case, Sella (SE) and Ryan (RY), select 12 kg of contents for a survival kits to travel to a remote village inside the rainforest. In turns 82–83, Sella begins this excerpt by expressing uncertainty about what additional items should be packed. She described this feeling with a GIF of an animated woman opening her arms and adding, 'I got nothing'. In turn 84, Ryan responds to her query by replaying the message and suggesting a big plastic mat as an essential item to bring. He reasons that it could serve dual purposes: it could be used for sleeping during the four-day trip 😴 (sleeping face) emoji, and it could be utilised as an umbrella in case of rain, as he illustrates with two ☔ (umbrella with raindrop) emojis. In turns 85–86, Sella acknowledges his response, seemingly impressed with his understanding and preparedness for the trip. Her comment implies that she sees him as an expert in trip planning. She also acknowledges him by posting a GIF displaying a woman's smile with the phrase 'Good job' and a yellow star. Finally, in turn 87, RY responds to her compliment with a bashful laugh, represented by two 😅 (smiling face with open mouth and cold sweat emojis). This interaction shows a friendly exchange of ideas and compliments between Sella and Ryan as they prepare for their upcoming trip.

Excerpt 6.18

Content Discussion in Text Chat

Lower-level actions Modal configuration: Written, emojis and GIFs	**Higher-level action**
82. SE: I have no idea what should we bring again 83. SE:  84. RY: Reply to 82> Hey we need 1 big plastic mat to sleep because our trip is 4 days 😴, and it can also be used as an umbrella when it rains ☔☔	Content discussion

85. SE: It seems that you are very understand very well and pro

86. SE:

87. RY: Replay to 85> Hhe 😅 😅

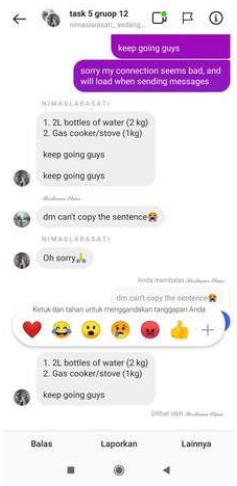
6.3.7 Technical action

In the technical-action episode, the student used a nonverbal screenshot image to help resolve a problem related to how to copy a message in the Instagram text chat. It perhaps happened when the student did not understand the features of Instagram text chat: for example, as described in the following Excerpt 6.19, which illustrates the conversation of three students, Bella (BE), Anny (AN) and Nia (NI), discussing the 12 kg survival kits. At turns 28–29, Bella starts this episode by posting two litres of water, equating to 2 kilograms, and encourages her partners to continue the list of the survival kits they need for the trip. In turns 30–32, Anny echoes this method by rewriting Bella's idea with numbers and a message for others to continue the list with the phrase, 'keep going guys!' She apologises for the delayed responses, however, due to her poor internet connection. Nia takes up the challenge, repeating the statement about the water bottles and adding another item to the list: a gas cooker or stove weighing 1 kilogram. In turn 33, however, Bella encounters a problem in that she cannot copy the sentences, which she expresses with a 😭 (loudly crying face emoji), indicating distress. In turn 34, Anny suggests that Bella be able to copy the text, although it's unclear how she recommends doing so. In turn 35, Nia repeats her previous contribution, encouraging the group. In response to Anny's earlier suggestion, in turn 36, Bella finally manages to copy the text and expresses its success. Anny, in turn 37, then provides further instruction on how to copy text, presumably in the specific interface they were using, indicating that Bella should click 'lainnya' (translated as 'others' in Indonesian) and then 'salin' ('copy' in Indonesian). Bella expresses gratitude towards Anny for the helpful guidance, bringing this excerpt of the interaction to a close in turn 38. Throughout this exchange, there is a sense of collaboration and mutual support as the participants work together to complete a task and navigate the technical aspect of their communication platform.

Excerpt 6.19

Technical Action in Text Chat

Lower-level actions Modal configuration: Written, emojis and GIFs	**Higher-level action**
28. BE: 2 L bottles of water = 2 kg 29. BE: Reply to 28> you guys can continue this. 30. AN: 1. 2 L bottles of water (2 kg) Keep going guys! 31. AN: Sorry my connection seems bad and will load when sending messages 32. NI: 1. 2 L bottles of water (2 kg) 2. Gas cooker/stove (1 kg) Keep going guys! Keep going guys! 33. BE: Direct message can't copy the sentence 😭 34. AN: Reply to 33> It can 35. NI: 1. 2 L bottles of water (2 kg) 2. Gas cooker/stove (1 kg) Keep going guys! 36. BE: Reply to 34> oh yes, it can	Technical action



37. AN: You click 'lainnya' and then click 'salin'
38. BE: Thankyou AN

6.3.8 Task closing

Like the task-opening episode, students seemed to use nonverbal cues a great deal to close the tasks. Perhaps they felt happy with the task and gave a cheerful farewell so that they could meet again in the following task in a good mood and motivated. Nonverbal emojis and GIFs were used in Task 4, where students needed to decide on a destination for their holidays. As illustrated in Excerpt 6.20, Chika (CH) and Iliana (IL) are concluding their discussion with plans for future meetings and an upcoming holiday. In turns 39–40, Chika reminds Iliana to prepare for the holiday and expresses her enthusiasm with 🤗 (hugging face emoji). Chika then adds a separate farewell message, saying that she enjoyed discussing with Iliana that day. In response, at turn 41, Iliana echoes Chika's sentiment with a warm farewell and a wish for Chika to have a nice day. Chika, in turns 42–44, posts a GIF of a small girl showing a hand gesture of folding down her fingers with blinking eyes and a 'bye' text, indicating a goodbye message. Resuming the conversation, she replays their farewell message, demonstrating a particular fondness for that moment, as suggested by 😍 (smiling face with heart-shaped eyes emoji). She then reciprocates Iliana's earlier well-wishes, hoping that Iliana had a nice day. She expresses this sentiment with a touch of humour or light-heartedness, as indicated by 🤣 (rolling on the floor laughing emoji). Iliana, in turn 45, responds with a GIF of a small cute white cat dancing with moving arms and body cheerfully. The conversation is friendly and warm, suggesting a close relationship between the two individuals.

Excerpt 6.20

Task Closing in Text Chat

Lower-level actions Modal configuration: Written, emojis and GIFs	**Higher-level action**
39. CH: If so, see you at the next meeting. And don't forget to prepare for our holiday later IL 🤗	Task closing
40. CH: See you later IL, nice to discuss with you today	
41. IL: See you again CH, have a nice day	
42. CH: 	

43. CH: Reply to 41> 😍
44. CH: Have a nice day too IL 🤣
45. IL:

6.4 Multimodal interactive alignment

This section analyses students' use of nonverbal cues to build interactive alignment during CMC task interaction through Instagram. According to Pickering and Garrod (2004), interactive alignment refers to the tendency of both parties in a conversation to adapt, reuse, mirror and coordinate their linguistic and non-linguistic behaviours to foster communication. Alignment holds substantial importance within language learning, as learners need to ensure mutual understanding and collaborative effort towards accomplishing the communicative goal. The students' patterns of multimodal alignment behaviour may have several functions in language learning. For example, it can enhance communication effectiveness, in which alignment helps ensure both parties' shared understanding and intention (Costa et al., 2008). Moreover, it can bolster motivation in language learning when learners feel that their efforts are being recognised and supported by their conversation partner. Furthermore, by building strong alignment, students can establish trust and rapport towards their conversation partners, potentially affecting the positive learning experience.

As discussed in the previous section, MIA was used as a framework to analyse this alignment. MIA aims to understand how these modes, such as written or spoken language, gestures, facial expressions and other nonverbal cues, work together to convey meaning and achieve communication goals. MIA of the students' interactions in the CMC task through Instagram revealed four types of multimodal interactive alignment: replicating emoji, reproducing GIFs, mimicking facial expressions, imitating gestures, proxemics and facial expression. Some of the findings in this section were published in Muntaha, Chen and Dobinson (2024), Multimodal

interactive alignment: Language learners' interaction in CMC tasks through Instagram. *Language Learning & Technology, 28*(1), 1–27.

6.4.1 Replicating emoji

The first pattern of multimodal interactive alignment observed in this study was replicating emojis. This alignment was often used to create mutual understanding and intention for managing the flow of conversation during CMC task interaction through Instagram text chat. One of the examples was the use of 🤔 (thinking-face emoji), which often functions as an indicator for requesting validation or agreement. For example, in Excerpt 6.21, Rhone (RH), Bevy (BV) and Achim (AC) are engaging in Task 5 (selecting and distributing survival kits). This excerpt is started, in turn 34, by Rhone's suggestion to the team to carry three torches with batteries, besides the two other items on which they had agreed (e.g., 2 litres of water in bottles and strong rope) as Achim commits to in turn 35. Achim also decides to bring painkillers and medicine, as in turn 36. Bevy consolidates the items into a comprehensive list of survival items they have agreed to bring in turn 37 with their associated weights. AC, in turn 38, proceeds to echo RH's idea for carrying torches with batteries, and he seeks Bevy's opinion by asking, 'What do you think . . .' and ends this question with a 🤔 (thinking-face emoji). Bevy concurs, citing the practicality of having a light source to mitigate darkness with a 💡 (electric-lightbulb emoji). Achim notes this suggestion and proposes that Rhone add it to the list. In turn 41, Bevy offers a stove, white rice and instant noodles as potential items to carry by reusing Rhone's post of 'What do you think. . .' and replicating the 🤔 (thinking-face emoji). Without replying to Bevy's suggestion, Rhone consolidates the previous offer in turns 42–43 into an updated list. He also mentions the weight of the items and their remaining capacity. In the last turn of this excerpt, Bevy tries to clarify her previous message and ponders her ideas for their food supply for the upcoming four-day trip by reusing the 🤔 (thinking-face emoji) at the end. This excerpt describes a multimodal interactive alignment process wherein the student replicates the 🤔 (thinking-face emoji) for request validation or agreement.

Excerpt 6.21

Replicating Emojis in Text Chat

Lower-level actions Modal configuration: Written and emojis	Higher-level action
34. RH: How about 3 torches with batteries?	
35. AC: Now we have these two items to carry 🥺	Negotiation of agreement
36. AC: Reply to 33> Yaa that's right	
37. BV: 1. 2 L of bottles (2 kg) 2. Strong rope (1/2 kg) 3. Pain killers and medicines (1/4 kg)	
38. AC: Reply to 34> I agree with this, what do you think BV? 🤔	
39. BV: Reply to 34> Yes, so it's not dark 💡	
40. AC: Reply to 39> Okey, add to the list	
41. BV: What do you think stove, white rice, instant noodle? 🤔	
42. RH: 1. 2 L of bottles (2 kg) 2. Strong rope (1/2 kg) 3. Pain killers and medicines (1/4 kg) 4. 3 Torches with batteries (1/4 kg)	
43. RH: We still have 8 kg left.	
44. BV: Reply to 41> For our food for 4 days 🤔	

6.4.2 Reproducing GIFs

In the next example, the students reproduced GIFs to establish alignment for the closing CMC tasks via Instagram text chat, as shown in Excerpt 6.22. In this example, two students, Nia (NI) and Sella (SE) discuss Task 4 (deciding on the forthcoming trip for New Year's Eve holidays). They seem to agree to travel to Malang (a plateau city between Mount Semeru and Arjuno). Nia closes the conversation in turns 47–48, confidently affirming the travel plans, stating, 'Okay, we go to Malang'. The simplicity of this statement conveys a sense of certainty and confidence about their travel decision. She continues to provide specific details about their expected meet-up. 'See you on December 28th', Nia announces, and she closes her message

with a 🤗 (hugging-face emoji), a symbol that suggests an underlying excitement and positivity about the forthcoming journey. Sella responds promptly in turns 49–51, echoing Nia's enthusiasm with a cheerful 'Okayy'. This affirmation extends into their agreement with the proposed plans, as Sella announces, 'then we're deal go to Malang'. This response confirms that Sella concurs with the proposed travel plans outlined by Nia. Finally, she closes this conversation with a farewell: 'See you'. A GIF shows a woman waving her hand behind the door, indicating a goodbye message. In turn 52, Nia reproduces a GIF showing a hand-waving gesture of an animated red heart face. This dialogue revealed that the students share a mutual understanding and agreement about their upcoming trip, and they align their leave-taking signs with GIFs showing waving hand gestures.

Excerpt 6.22

Task Closing in Text Chat

Lower-level actions Modal configuration: Written, emojis and GIFs	**Higher-level action**
47. NI: Okay, we go to Malang 48. NI: See you on December 28th 🤗 49. SE: Okay then we're deal go to Malang 50. SE: See you	Task closing
51. SE: 	
52. NI: 	

6.4.3 Mimicking facial expressions

Meanwhile, in the video-chat tasks, students were observed building interactive alignment by mimicking each other's facial expressions. For example, a conversation among three individuals, Fascia (FA), Anny (AN) and Nia (NI), revolved around Task 9 (describing and arranging a set of pictures), as shown in Excerpt 6.23. In turn 27, Fascia begins the episode by requesting that Anny repeat the description of the first picture while pointing her fingers at the screen. In turn 28, Anny complies by explaining that the image portrays a man journeying to school. Building on this, in turn 29, Fascia inquires about the second picture, questioning whether it depicts an angry teacher. In turn 30, Anny affirms this and clarifies that the teacher is angry at the man, who is presumably the same one heading to school in the first picture. In turn 31, FA seems to understand the situation, and she echoes a double 'Okay' while showing her thumbs-up gesture to the screen before seemingly preparing to offer a further comment or analysis with the preface, 'so let's'. Eager for this continuation, in turn 32, Anny prompts the others with a question, 'So?' while showing her index finger to the screen. In turn 33, Fascia begins to express a thought with 'I think' while touching her chin with her finger. After being interrupted by Anny's impatient, 'how?' Fascia again starts to share her opinion but is cut short by Anny. Despite the interruptions, Fascia articulates that she believed Anny's first picture represented the story's beginning. Anny agrees with this observation, specifying it as a 'part of the story'. Nia, who has remained silent thus far, interjects at this juncture to support this interpretation, saying, 'yes, I think so'. The interaction concludes with Fascia's acknowledgement, a simple 'uh huh', confirming the collective agreement on the story's sequence as told through Anny's pictures. This excerpt reveals that, in the process of negotiating meaning, students might align their facial expressions to indicate the process of thinking and questioning. They could dynamically change their facial expressions to thinking and questioning faces when stuck in the negotiation process. Their facial expressions changed back to normal, however, once they could solve the negotiation.

Excerpt 6.23

Negotiation of Meaning in Video Chat

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
27. FA: Can you repeat your first picture? 28. AN: My first picture describes a man going to school. 29. FA: And the . . . your second picture is the teacher is angry? 30. AN: Yeah, angry to the man. 31. FA: Okay, okay, so let's . . .  <u>Nonverbal cues:</u> FA: She looks up at the screen while pointing her fingers at the screen. She then shows her thumbs-up gesture. She points her finger towards the screen. AN She looks up at the screen while paying attention to her partners. NI: She looks up at the screen while paying attention to her partners. She puts her hand up to cover her mouth.	Negotiation of meaning
32. AN: So? 33. FA: I think 34. AN: How? 35. FA: I think the first 36. AN: I think your . . . 37. FA: Picture of AN is the first story 38. AN: Part of the story, part of the story 39. NI: Yes, I think so 40. FA: Uh huh 	

Nonverbal cues:
FA: She looks up at the screen while touching her lips with her finger. She looks down and continues touching her lips. She looks up at the screen, showing a questioning face while touching her chin.
AN: She looks up at the screen while showing her index finger to the screen. She continues looking up at the screen while putting her thumb to her cheek with a thinking face.
NI: She looks up at the screen while touching her chin. She looks to the left of the screen and shows a thinking face. She then looks back at the screen, paying attention to her partners.

6.4.4 Imitating gestures, proxemics and facial expressions

Finally, students also employed gestures, proxemics and facial expressions to align with their partners multimodally. Excerpt 6.24 illustrates this pattern during the dialogue between Bella (BE) and Mahesh (MA), who negotiate the target words for completing Task 3. In turn 31, Bella initiates the exchange by stating that their topic of discussion is a character from the Marvel movies. Mahesh, in turn 32, responds with a question: 'Marvel movie?' This could be an echo question for confirmation or an expression of surprise. In turn 33, Bella elaborates on this description by stating, 'Yes, he is a hero, and he can do this. Cuss' while showing an iconic hand gesture with her thumb, index and pinkie fingers extended outward. Her middle and ring fingers are curled towards her palm, mirroring the hand gesture of Spiderman when he does a web-shooting. The ambiguous reference to 'this' indicates an action she performs representing the superhero's unique ability. In turn 34, Mahesh imitates the gesture acted out by Bella with a smile while moving a little farther from the screen to allow his gesture to be fully seen on the screen. He also requests further clarification on the hero's abilities. In turn 35, Bella proposes a challenge to Mahesh: 'Can you guess this, so guess it?' This playful command invites Mahesh to identify the superhero based on the clues. In turn 36, Mahesh takes up the challenge and confidently identifies the hero as Spiderman. In turn 37, Bella acknowledges Mahesh's correct guess with a cheerful, 'yeah, so easy, right?' recognising the simplicity of the task. In turn 38,

Mahesh echoes Bella's sentiment, agreeing, 'Yeah, so easy', rounding off this friendly and playful exchange revolving around a beloved superhero.

Excerpt 6.24

Task Management Occurring in Video Chat

Lower-level actions Modal configuration: Spoken, facial expressions and gestures	**Higher-level action**
31. BE: OK, this one is from Marvel movies. 32. MA: Marvel movie? 33. BE: Yes, he is a hero, and he can do this. Cuss. 34. MA: He can do this? 35. BE: Can you guess this, so guess it? 36. MA: Uh, yes, Spiderman. 37. BE: Yeah, so easy, right? 38. MA: Yeah, so easy.  <u>Nonverbal cues:</u> BE: She looks up at the screen while providing the clue for the next character. She makes an iconic gesture showing Spiderman's hand when he does a web-shooting. She looks up at the screen with a smile. MA: He looks up at the screen's right side and shows a thinking face. He looks up at the screen while paying attention to his partner. He imitates the hand gestures performed by his partner while moving a little farther away with a smile.	Negotiation of target words

6.5 Summary

The findings confirm that students employ nonverbal cues to build interactive alignment in online communication. In the context of multimodal interactive alignment, nonverbal cues such as emojis, gestures, facial expressions, images and GIFs along with verbal cues, serve as lower-level interactions that combine to form meaningful interactions in higher-level actions. These lower-level actions are instrumental in facilitating effective communication and enhancing mutual understanding among participants. Verbal cues, for example, create a foundation for dialogue and enable coherent and structured exchanges. Meanwhile, emojis, images, GIFs and gestures provide emotional or contextual nuances, concrete visual representations and support of the topics under discussion. The integration of these nonverbal elements with verbal communication enriches the interaction and makes it more effective for conveying the meanings and emotions between participants through a more comprehensive expression of thoughts and feelings.

Some patterns of using nonverbal cues to create interactive alignment include replicating emojis, reproducing GIFs, mimicking facial pressions and imitating gestures, proxemics and facial expressions. Learners employ those patterns to maintain the conversation flow so that it can minimise potential misunderstanding. In other tasks, students also employed it to create a sense of closeness between them so that they could create common ground and build a strong relationship because in online communication there was physical distance between them. In some tasks, aligning using nonverbal cues might help them signal clearly a particular discourse function within task interaction, such as opening or ending the discussion, reaching an agreement or negotiating a target word. Beyond all those functions, it possibly reinforces and fosters students' language use and learning.

Finally, the nonverbal cues used by students during CMC task interaction through Instagram chats can effectively signify their enjoyment. These nonverbal elements, ranging from emojis to gestures, enrich the overall communicative experience by facilitating task engagement and providing students with more vibrant tools to express their enjoyment more expressively with their peers. Recognising and understanding the role of nonverbal cues in online language-learning platforms can be essential to promoting more engaging and enjoyable learning experiences.

Chapter 7
Discussion

The primary goal of this study was to investigate how students engaged with multimodal CMC tasks to foster English communication and to explore their experiences of completing CMC tasks through Instagram outside the classroom. Using a sociocognitive framework, this study also served as the basis for analysing students' language use, including verbal and nonverbal cues, to foster communication and task engagement. This chapter discusses a series of propositions based on the findings of the two central research questions and their two sub-questions:

1. How did students perceive completing multimodal CMC tasks via Instagram outside the classroom?

1a. What were students' experiences with completing CMC tasks via Instagram?

2. What affordances did Instagram chat features offer students to accomplish CMC tasks outside the classroom?

2a. In what ways did students display multimodal interactive alignment in CMC tasks via Instagram?

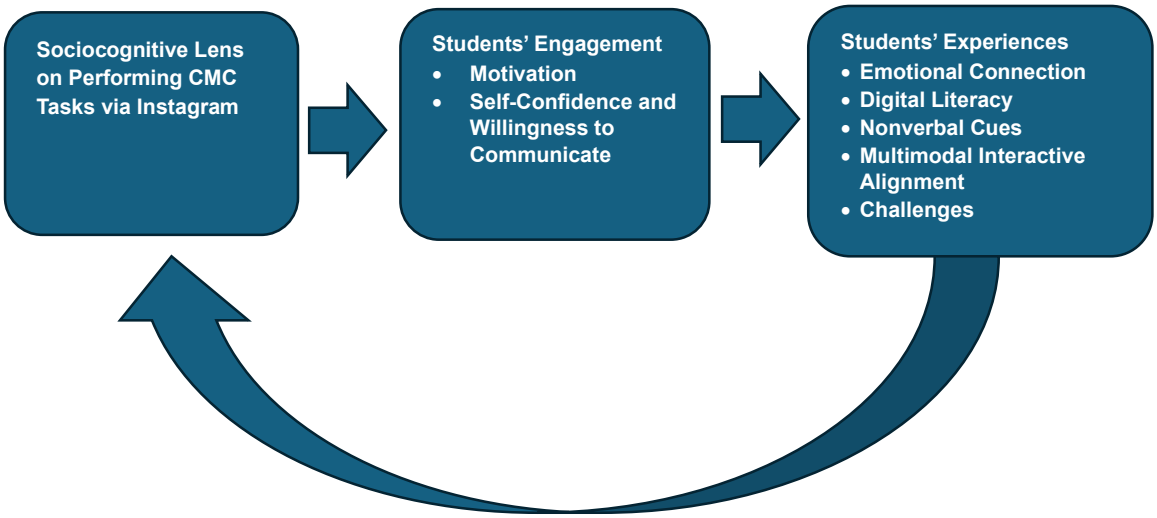
As outlined in Chapter 3, the study employed a case-study approach with a mixed-methods research design incorporating multiple data-collection methods and analyses to answer the research questions. These data-collection methods included surveys, journal reflections, semi-structured interviews and an analysis of students' chat archives from Instagram. The data were analysed using quantitative, qualitative and multimodal interactive analysis. The insights from those analyses collectively informed sections 7.1 and 7.2 of the discussion.

The discussion probes various themes in the data, comparing and contrasting these with the existing literature in the field. This chapter aims to formulate propositions regarding the feasibility and effectiveness of using social-media platforms like Instagram for language learning and communication outside the FTF classroom. Figure 7.1 shows how the findings of this study directly correspond to the research questions analysed through a sociocognitive approach. The diagram illustrates the interconnected themes discovered in this research. It

depicts the cyclical process by which students' participation in completing CMC tasks via Instagram enhances their task engagement and enriches their experiences in learning the target language. *Task engagement* refers to students' active involvement and interest during a specific learning activity (Aubrey et al., 2022). It is also believed to be a means of strengthening the quality of and deepening students' online learning experiences (Chen & Kent, 2020), meaning that active participation during the tasks gives students more meaningful learning experiences. The illustration also highlights the relationship between students' active involvement in CMC tasks and the consequential effect on their motivation and self-confidence. This engagement encourages their enthusiasm for learning and reinforces their connection with peers and the learning community; it also fosters digital literacy by boosting students' ability to leverage their digital knowledge to navigate the complexities of modern communication. In addition, students' experiences employing nonverbal cues also foster positive emotions in online learning and demonstrate multimodal interactive alignment that potentially enhances LX learning outside the classroom. This evidence supports the notion promoted by the sociocognitive framework, which acknowledges that learning is a human process that adapts to the environment and that this product results from the interplay between cognition and social interactions (Atkinson, 2011b; Atkinson et al., 2007).

Figure 7.1

Impact of Integrating Tasks with CMC Towards Students' Experiences and Language Use



7.1 Students' perceptions of completing multimodal CMC tasks via Instagram

7.1.1 Students' tasks engagement

Students perceived that employing Instagram to complete multimodal CMC tasks increased their level of engagement with the tasks. This engagement was attributed to Instagram's multimodal channels and interactive features, which transform the learning process into a meaningful and enjoyable experience. Consequently, these engaging learning processes foster a more motivated mindset among students. They feel more driven to complete tasks and experience a boost in their self-confidence, which is important, as it correlates with their willingness to communicate in the target language. These positive perceptions of the use of Instagram for LX learning, particularly regarding motivation, self-confidence and willingness to communicate, are further detailed in the following sections.

7.1.1.1 Motivation

Students' involvement in the CMC tasks via Instagram showed promise with respect to enhancing their engagement, particularly amongst university students in Indonesia. As they were already familiar with using Instagram in their daily lives, completing various tasks on this digital platform encouraged them to participate actively in this online informal LX learning. Students who participated in different learning activities via Instagram interacted extensively with their peers in the target language and created a collaborative learning atmosphere. These peer interactions played a vital role in reinforcing their motivation, which is in line with previous research that highlights task motivation and engagement as crucial elements in language-learning success in online settings (Chen & Kent, 2020; Henrie et al., 2015; Stockwell & Reinders, 2019). The current investigation added to this growing body of research, revealing that most students felt a significant boost in their motivation when practising CMC tasks through Instagram. They attributed this motivation and engagement improvement to the appropriateness of participating in CMC tasks with their LX learning objectives. In other words, participating in CMC tasks offered the concrete benefits of helping students hone their English communication skills and led students to view CMC tasks as suitable and practical models for online informal language learning outside the classroom. Indeed, González-Lloret (2020) argued that marrying technology, such as Instagram's communication channels, with tasks can potentially foster students' motivation for language learning by enhancing productive

language outputs (i.e., spoken and written) and stimulating interactive, spontaneous and authentic interactions. This finding further echoed prior studies by Ajabshir (2019) and Belda-Medina (2021), which demonstrated the benefits of combining CMC with task-based language learning compared to the conventional rote learning methods in FTF settings.

The opportunity to practise and hone their communicative skills fostered a sense of competence among students. This perceived competence in communication was another source of motivation for engaging in CMC tasks via Instagram. As students experienced satisfaction in their growing mastery of communication skills, their intrinsic motivation was strengthened, and this led to their more intentional involvement in performing CMC tasks via Instagram. This observation is consistent with Pawlak et al. (2022), who found that students' satisfaction with their competence in using LX for interacting with others was closely tied to their increased investment of effort in language learning. In other words, when students felt fulfilled and competent in communicating ideas and opinions in LX with their peers effectively, they were more likely to be intrinsically motivated to participate in CMC task sessions. Nevertheless, this current study also revealed that the satisfaction derived from their competencies was not their sole motivator. The diverse communication modes on Instagram, including text, audio and video, offered a viable platform on which for students to practise and improve all four English communication skills: listening, reading, writing and speaking. This comprehensive skill development offered through Instagram's multimodal communication tools is valuable because it equips students with the necessary communicative skills required for building effective interaction in both in-person and digital communication settings. This finding further corroborates previous research that the varied communicative functionalities of Instagram could effectively encourage students' participation in language-learning interaction (e.g., Al-Garawi, 2019; Alfadda et al., 2022; Tarigan et al., 2021; Teng et al., 2022).

Furthermore, motivation in language learning increased when students interacted with more-proficient peers. This interaction creates an ideal environment where they can develop their communicative abilities by expanding their vocabulary and improving grammatical accuracy via mirroring and adjusting their linguistic repertoire to match the proficiency of their more skilled partner (Canals, 2022). This motivation often manifests in the ideal L2 self, a future vision of oneself as an experienced target language user (Dörnyei & Al-Hoorie, 2017; Dörnyei & Ryan, 2015). In the current study, this form of motivation triggered a cognitive process of

self-appraisal, where students evaluated their language abilities compared to their more-skilled counterparts. For example, both Anny and Altaf were motivated to engage actively in the tasks and enhance their English learning because they wished to emulate their more-capable peers (see Chapter 5, Section 5.1.1). Acknowledging the gap in their speaking skills, they viewed their more linguistically proficient friends as role models and set their linguistic level as a realistic target for their own. This target directed their energy into seeking additional learning opportunities, such as taking more online language-learning activities beyond the Instagram tasks or engaging in intensive practice sessions. The interview data showed that, like Anny and Altaf, other students also sought external learning opportunities, such as joining LX work or accessing different platforms for practice to achieve their goals. Echoing Jang and Lee (2018), this study also found that motivated students with well-defined ideal L2 selves were likelier to adopt more strategic planning in their language-learning journeys by setting goals and identifying the steps required to reach them.

As found in this current study, students translated their motivation into engaging with various technological resources beyond Instagram that they believed would support them in achieving their learning goals. For example, as expressed in the interview, Anny proactively joined an online English language-learning channel on Telegram (another social media) to access free, well-designed language-learning materials provided by the instructor of this English-learning platform (see Chapter 5, Section 5.1.1). Realising the limited opportunities provided by only participating in weekly task sessions to enhance the language input, other students sought additional resources. They started watching English YouTube videos with English subtitles; they changed their previous behaviour of understanding English videos by relying on Indonesian subtitles. A case in point was that one student used a YouTube video to practise her English pronunciation. She would speak in front of a mirror, mimicking the pronunciation and intonation she had heard. Those investments in additional activities outside the task session to maximise one's effort toward achieving the ideal L2-self have become more feasible technological advancements (Darvin & Norton, 2016). This finding supported the arguments put forth by Stockwell and Reinders (2019) that the current wide range of technology offers a wealth of opportunities for motivated students to fully leverage their affordances for supporting their informal language-learning process.

The survey results also suggested that students perceived participating in CMC tasks as positively affecting their motivation and engagement. The vast majority—over 90%—of respondents agreed that the CMC tasks in the study effectively enhanced their English-communication skills. Furthermore, almost 90% of students reported being active participants in the CMC task sessions conducted through Instagram outside the classroom. Unanimous agreement was also reached among the students, who were committed to completing the assigned CMC tasks regardless of any obstacles they faced. It further highlighted the elevated levels of motivation and engagement the students experienced while participating in CMC tasks via Instagram. These findings corroborate prior studies investigating the benefits of participating in CMC tasks via social media, such as Instagram (e.g., Alfadda et al., 2022; Teng et al., 2022; Yeh & Mitric, 2019), which demonstrated that optimising the use of Instagram in language learning might boost students' motivation and engagement, improve their grammatical skills and enhance their overall communication abilities. In the Indonesian context, integrating communicative tasks into Instagram transformed the learning process to be more meaningful, as it aligned with the students' everyday life experiences and simultaneously gave them a space to hone their communicative skills informally. This approach addresses the challenges noted by Fajriah et al. (2019) and Agung (2019), which point out that Indonesian students often encounter limited opportunities to use the target language within classroom settings and that their learning activities seldom resonate with their daily routines. By embedding LX learning within an accessible and familiar social media, educators can bridge this gap by making language practice more integral to the students' daily routines.

7.1.1.2 Self-confidence and willingness to communicate

Students reported an increase in self-confidence and a decrease in anxiety while engaging in CMC tasks. This finding aligns with those of Lee and Lee (2019), who argued that a boost in self-confidence when using the target language affects students' willingness to communicate in it. In this current study, such a boost in confidence was reinforced after students adapted to the learning, achieved success in completing the tasks and became more familiar with the task requirements. This process of adaptation and accomplishment contributes to more comfortable learning as students succeed in completing the tasks and begin to feel that the tasks are easy. This comfort comes from their adaptation to the learning process and sense of competence. Consequently, they gain confidence in their abilities, and this sentiment increases their

willingness to communicate. These findings also supported the assertion of Mulyono et al. (2021) that self-confidence was crucial in enhancing students' willingness to communicate in the context of digital language learning.

On the other hand, unlike confidence, anxiety has been identified as a factor that could hinder students' willingness to communicate (Khajavy et al., 2021; MacIntyre & Gregersen, 2022). Students reported that using CMC platforms, such as Instagram chat, helped reduce their anxiety when communicating in the target language, especially through text and audio chats. For example, Revan and Adam experienced a reduction in their anxiety due to the absence of immediate FTF interaction, which had often created a psychological buffer between them and their peers (see section 5.3.5.2). This finding diverged from the research by Baralt and Gurzynski-Weiss (2011), who found no significant difference in anxiety levels between students engaging in CMC and those in FTF in-person settings. The study findings aligned more closely with those of Namaziandost et al. (2021), who noted that the CMC platform, a especially text-based chat, lowered its users' experienced anxiety levels.

An additional factor that students identified as helping to increase their willingness to communicate during task completion was the real-life relevant and familiar topics embedded in task design. The topics were selected based on a needs analysis, using surveys and interviews to determine students' learning interests and needs. The students identified topics like travelling, family, friends and movies as engaging since they aligned with the objective of their course, English for Communication Purposes. They were integral to everyday communication needs (see Chapter 3, Section 3.2.3.1). For example, Fascia viewed the task as a daily duty that should be completed collaboratively with her peers. She recognised that the content of the tasks was an assignment similar to her daily routine communication activities, so this belief drove her to participate in and complete the assigned task. This finding supports research by Pawlak and Mystkowska-Wiertelak (2015), who suggested that students experienced a reduction in cognitive load when they engaged with exciting and familiar topics. These friendly and accessible topics lessened the burden of processing content using English or when translanguaging between Bahasa Indonesia and English in CMC tasks simultaneously and allowed them to allocate attention directly to the language-processing aspect of the task instead of struggling to understand the content; hence, it reduced the cognitive load. The findings corroborate with previous research by Cao (2011) and Kang (2005), which revealed that a lack

of background knowledge about a topic and lack of familiarity with the specific language register could serve as barriers for students to build effective communication.

The survey results further validated these findings, with most students responding positively to the item inquiring about the role of CMC tasks in fostering English-language communication. Specifically, almost 90% of students agreed that completing tasks on Instagram actively encouraged them to communicate more in English. Furthermore, there was a noticeable shift in students' anxiety levels related to using Instagram chat for language learning, with a decrease in anxiety, from almost 13% to only 6%, reported in post-study surveys. This indicated that students might have become more confident in completing language tasks on social media platforms. This positive response posited that CMC tasks, which are real-life driven and multimodal, are a pivotal component of modern language education and advocated the strategic incorporation of CMC tasks through Instagram into contemporary digital-communication practices. This finding highlights the rigorousness of the task design in this study, which met students' learning needs and interests and could foster students' confidence and willingness to communicate. It was also supported by the platform for administrating the tasks (Instagram), which provided multimodality, flexibility and spontaneous communication.

7.1.2 Students' experiences

7.1.2.1 Emotional connection

During the COVID-19 restriction, online interaction became a lifeline for many students because it enabled them to connect with others and maintain their well-being beyond social distancing in challenging circumstances. Since all learning activities were shifted to online settings, it was crucial to identify an effective LX learning framework and suitable digital platforms. The integration of task-based language learning with social-media platforms like Instagram is particularly effective for this purpose and could make the learning process more enjoyable and engaging. Some research indicates that online language learning might increase students' boredom due to lengthy monologues by teachers during online classes (Derakhshan et al., 2021) or induce 'Zoom fatigue' from prolonged exposure to CMC platforms (Nadler, 2020). The present study countered these findings, however, by highlighting the use of CMC, especially Instagram, as an LX learning platform that offers a relaxed, spontaneous and engaging language-learning experience. This natural characteristic of Instagram could boost

students' positive emotions during online language-learning activities. The flexible, multimodal and playful aspects of language learning through Instagram and other CMC platforms (Chen, 2016a; Chen et al., 2020; Gomes Junior, 2020) encouraged students to take risks in trying out the target language without nervousness about getting pressure and criticism from teachers and peers. In this vibrant environment, students might view errors as a natural part of learning rather than setbacks, given that they had the opportunity to revisit their interactive exchanges through archived chat logs or recordings. The way they engaged and communicated in CMC tasks using Instagram, which comes naturally to them, reduces the nervousness usually felt in a FTF conversational class. Moreover, the possibility of making errors in front of the class and the teacher had also prevented them from taking risks when completing tasks in a formal classroom. As Dhaval mentioned, completing tasks via Instagram allowed him to review his previous exchanges and gradually learn from them, indicating a positive approach to error correction and learning progression (see Chapter 5, Section 5.2.1). This finding supported Reinhardt's (2020) and Chen's (2023) argument that social media and CMC platforms could be 'playgrounds' (Reinhardt, 2020, p. 239), where students had the opportunity to learn the language on their own, even in the absence of a teacher. In addition, students could use creative features like animated GIFs or emojis to express their emotions and be free of the rigid rules of academic correctness during text-based interaction (Dobinson, 2022).

With limitations on FTF interactions, such as less flexibility and geographical constraints, students felt that performing multimodal CMC tasks via Instagram provided a virtual third space in which they could stay connected with their peers. It helped combat the isolation and disconnectedness that the pandemic had exacerbated. Students could maintain a sense of belonging and online community-building during remote learning through weekly task performance (Liu et al., 2022). This experience was also associated with previous research inquiring about the capacity of social-media platforms to enhance interactivity and social networking among students (e.g., Alismaiel et al., 2022; Gomes Junior, 2020). Thus, CMC platforms, such as Instagram, could play a vital role in fostering social connection and inclusion, which is crucial for learners who might feel psychologically distant, isolated and disconnected due to the constraints of remote education. This interconnectedness of the cognition of learning LX through reflecting on the errors captured in chat logs or recordings and the connection to social interaction among students proved the sociocognitive framework's

principle that learning is not an isolated mental activity but an interplay between cognition development and social interaction (Atkinson, 2011b).

Another source of connection was that these task activities make learning experiences more relevant and appealing by connecting students to a familiar platform, such as Instagram, which can strengthen their connection with their peers (Alazemi et al., 2023). According to Li (2020), experiencing positive emotions, such as enjoyment and fun, is vital in fostering successful language learning. Enjoyment and fun were two linked factors; enjoyment arose when the activity was inherently satisfying, independent of any external rewards or pressure (Dörnyei & Tseng, 2009). Fun in performing communicative tasks emerged when students engaged in an 'edutainment' activity (one that included both educational and entertaining elements; Chen, 2023). In this study, students reported experiencing 'happiness' and 'pleasure' when completing tasks via Instagram outside the classroom. According to the learners, one reason for this positive experience was the strong resemblance between the task assigned and the student's real-life activities. These authentic tasks were just as they would be in daily social-media interactions. This real-world relevance and authenticity made the tasks feel relevant and practically applicable to social media for supporting everyday communication acts, such as providing information, reasoning and sharing opinions (Kim et al., 2022). These findings expanded the study of Erarslan (2019), who revealed that Instagram could support formal language education by immersing students in authentic language use as part of their routine activities. In addition, due to Instagram's widespread popularity and familiarity among students, it was not just another tool for learning; rather, it was a platform already integrated into their daily communications and social interactions.

The survey results also revealed a shift in students' positive views of the enjoyment of completing tasks on Instagram with peers. Before the study commenced, about 70% of students reported finding such tasks enjoyable. By the end of the study, however, that figure had risen to 90%. This marked growth underscored the increasingly positive perception among students that performing CMC tasks via Instagram fostered enjoyment. Students felt that these tasks provided an emotional connection between what they did in the tasks and their daily communication activities. This connection was likely strengthened by the integration of communicative tasks with a platform that is both familiar and popular among students (Amelia & Oktavia, 2020; Wibowo & Ellysinta, 2022). Additionally, this perception was reinforced by

the common teaching model employed in the Indonesian educational context, where language teaching is predominantly teacher-centred rather than student-centred and interactive. The shift toward CMC tasks, which resonated with students' real-life needs (Hima et al., 2021) and encouraged students to use the target language (Efriza et al., 2023), enhanced this positive view. These results confirm prior research that developing task designs that incorporate familiar and interesting topics to students is necessary for sustaining engagement and enjoyment in accomplishing CMC tasks (Aubrey, 2022).

7.1.2.2 Digital literacy

Experiencing a sense of involvement in using digital tools for language learning could potentially enhance students' digital literacy skills (Tour et al., 2019). In this study, students found that participating in CMC tasks encouraged them to use various chat features on Instagram for direct communication with peers, such as sharing multimedia like photos, GIFs and audio, navigating video-chat functionalities and using artistic effects. Moreover, the post-study survey results revealed that nearly all students concurred that their involvement in Instagram chat tasks had raised their awareness of the multimodal platform as a potential tool for authentic communication and learning English. Moreover, almost 90% of the students also reflected that doing CMC tasks improved their understanding of how to employ various smartphone features for better communication.

Students also noted an improvement in their ability to use other digital tools beyond Instagram features. One example gleaned from their interviews was the frequent use of auto-correction available on their smartphone keyboards to correct spellings and improve written message accuracy during CMC tasks. This tool was handy since the students typically communicate in Bahasa Indonesia in their daily interactions, and they activated auto-correction features only for English communication. This auto-correction feature reinforced their awareness of the proper use of grammatical forms and structures, which learners might begin to internalise over time (Aljohani, 2022). Indeed, Barrot (2021) also found that auto-correction tools could enhance writing accuracy. Within the context of this study, however, students used auto-correction tools to focus more on fluency in communication. Auto-correction could help them ensure their accuracy, such as by eliminating spelling errors, leaving room and time for them to focus on meaning during task interaction. Consequently, they were able to concentrate more

on conveying their message rather than being preoccupied with linguistic accuracy. Students could dedicate more mental resources to organising their thoughts and communicating. This evidence supports the argument that supplementing FTF classrooms with online learning platforms like CMC might enhance students' language skills and digital literacy (Alsowat, 2022).

7.1.2.3 Nonverbal cues

Nonverbal cues played a crucial role in CMC task interaction, especially in promoting mutual understanding and the smooth flow of oral discourse. They served as communication-enhancement devices that helped students, particularly those with lower proficiency levels, to clarify and emphasise their messages. The students often found that relying solely on verbal communication was insufficient to convey meaning effectively, leading them to use additional visual resources to enrich their communicative repertoire. These findings align with those of Lu and Wu (2022) and Al Rashdi (2018); both studies noted the effectiveness of emojis in expressing emotions during online interactions. Emojis can show visual signals that can clearly indicate the emotional tone of the message, whether it is love, happiness, surprise, fear or sadness. Furthermore, students also used gestures to assist in retrieving and visualising specific words to enhance their communication flow, particularly in video chat. This use of nonverbal cues extends beyond the observations of Hsu et al. (2020), who identified the cognitive benefits of gestures in word retrieval, where gestures can serve as fillers that can bridge the gap while the speaker searches to find the appropriate words. In other words, students in this study employed gestures to help them bridge the gap during the cognitive process of lexical search and assist them in visualising the words to improve the interlocutor's comprehension.

Using the sociocognitive approach as the theoretical framework, these findings supported the claim that cognition was not isolated within an individual; it was shared and embodied through various forms, including nonverbal cues like facial expressions, gaze and gestures (Atkinson, 2010, 2011b) that provided better contextual clues and humanised online interactions as they emulate paralinguistics features. Such features contributed to richer and more holistic contextual information that aided in constructing shared understanding and knowledge (Bavelas & Gerwing, 2007). In this study, students employed more than just their voices during task interaction to produce language sounds. During the tasks, they used their whole bodies,

including faces, hands, eyes and other parts, acting harmoniously with speech to convey messages (Kendon, 2004; McNeill, 2012). This synergy between verbal and nonverbal elements resulted in more comprehensive and meaningful messages. Students were observed using emojis and gestures during various phases of the task sessions, such as initiating the session, negotiating target words or discussing the task content (see section 6.1.5). This sociocognitive learning is particularly evident in a CMC environment through Instagram, as the cognition process during task interaction is embodied and extended beyond the individual's mind by including various forms of nonverbal communication. This learning process is also influenced by the students' task interaction, which stimulates the use of those nonverbal cues. Hence, the use of the entire body and digital representations like emojis were vital in performing CMC tasks, highlighting the importance of multimodal communication in language learning.

In video-based communication, gestures, gaze and facial expressions build joint attention, which add to the construction of mutual understanding during the negotiation of meaning (Lee et al., 2019). They compensate for the lack of vocabulary resources during negotiation. In this study, students often employed iconic gestures, a visual representation containing the semantic meaning of words (McNeill, 2012), to describe and represent a particular object or action when completing a CMC task via a video-based Instagram chat. A case in point was the use of a circular hand gesture to represent a shield in Task 3 (see Chapter 6, Section 6.3.5) or mimicking a breaking action with one's fingers in Task 8 (see Chapter 6, Section 6.2.5). These gestures enabled interlocutors to resort to paralinguistic resources to resolve communication breakdowns, thus improving the negotiation of meaning whilst keeping the communication going (see Lee et al., 2019). Incorporating nonverbal cues facilitates intensified engagement from the communicators on specific central points, enabling the interpretation of meaning by observing the visual cues manifested in gestural movements (Dahl & Ludvigsen, 2014; Yoshida, 2020). These cues allow individuals to express a wide range of emotions and sentiments in online interactions, such as joy, sadness and other feelings that add depth and emotion to only verbal communication.

Another example of nonverbal utilisation was the use of deictic gestures during Task 3 via Instagram video chat (see Chapter 6, Section 6.3.5) when a student pointed to her chest using her index finger, saying, 'A picture star in his clothes'. This helped to visualise meaning,

emphasise certain aspects of the spoken message and augment speech content and message or input enhancement (see Stam & Tellier, 2021). Nonverbal cues operated not merely as speech aids but as integral components of holistic communication. They served to clarify and reinforce verbal exchanges and contributed to the meaning-making process. As Jewitt (2014) noted, these cues collectively affected how the message was interpreted during task communications. Nonverbal cues in CMC interactions are often limited to what can be seen within the camera frame. Despite this limitation, these cues remain beneficial in emphasising points and adding layers to verbal communication. As a result, gestures and facial expressions become more pronounced and crucial for conveying emotion, clarifying intention and providing feedback. In video-based Instagram chat, these cues become vital in maintaining engagement and signalling one's active participation. Smiles and eye contact can build rapport and create a more personal connection, similar to the warmth and immediacy of FTF interactions (Chew & Ng, 2021).

Similarly, the use of emojis, images and GIFs in text chat interaction can also function as gestures and facial expressions in video-based communication. These nonverbal cues helped the speaker establish a shared understanding with their interlocutors, contextualise discussions and counteract the lack of vocabulary resources, particularly for less-proficient language learners. These insights supported the previous research by Al Rashdi (2018), which highlighted the role emojis play as potential facilitators of context-building during online interactions. For example, a student in this current study used the ☔ emoji (an umbrella with raindrops) to explain why a plastic mat should be included in survival kits, as he drew a parallel to the umbrella's function of shielding one from rain (see section 6.1.5.6). Additionally, incorporating images or GIFs in text chat provided concrete clues and avoided distorted context (see Shiau, 2016). An example of using images was when students used images of a beach to enrich the discussion by providing their interlocutors with detailed and more tangible contextual elements that offered a multifaceted view of the topic (see section 6.1.4.4). This inherent multimodal nature of communication substantially enriched mutual understanding and fostered a collaborative interaction framework conducive to online learning environments (Cai et al., 2022).

Prior research also indicates that, during online interactions, individuals often miss out on the context that surrounds the conversation, failing to grasp some physical behaviour of others that is usually present in FTF interaction (Paradisi et al., 2021) and experience a lack of emotional

and social presence (Al-Amrani & Harrington, 2021; Jiang & Koo, 2020). This study found, however, that the wide range of nonverbal cues accessible during an Instagram chat could help students sustain positive emotional engagement during their CMC task interaction. For example, in this study, students used emojis, images and GIFs as practical tools to articulate emotions like happiness, confusion or empathy, especially during text-based negotiations. They provided visually animated representations of emotions that complemented and overcame the inherent constraints of verbal communication, such as a lack of emotional context and reduced engagement. Furthermore, the presence of gestures, gaze and facial expressions in video chats coincided with the dynamic of in-person communication and added visual cues to supplement verbal exchanges, thus enabling speakers to share their emotions as part of the integral to communication (Kelly & Ngo Tran, 2023; Satar, 2016). In this study, those nonverbal cues appeared to be a practical tool for showing the interlocutors' enthusiasm and enjoyment during task completion. Nonverbal cues became a fundamental asset for language learners to express emotions, adapt the full spectrum of communication in the target language and bring paralinguistic features to not only daily interactions but also CMC task interaction, particularly for the text-based communication that benefits from these features (Inderasari et al., 2023; Kendon, 2017; Kiaer, 2023).

In addition, using nonverbal cues in online interaction transformed the dynamic of online communication and made it livelier. The current research broadened the scope of prior studies on multimodality in LX learning, which had focused on the role of visual input in fostering metalinguistic awareness (Amgott & Gorham, 2022; Hardison & Pennington, 2021), CMC research investigating the cognitive communication function of nonverbal cues, such as the negotiation of meaning (Lee et al., 2019) or gestures and LX learning research exploring gestures function on facilitating vocabulary learning (Clark & Trofimovich, 2016; Garcia-Gamez & Macizo, 2018). Unlike previous research that focused mainly on the cognitive aspect of CMC, this study provided empirical evidence that underscored the contribution of nonverbal cues to the socio-emotional aspects of language learning. In this context, students employed nonverbal cues (e.g., emojis and GIFs) to build social connections and instil elements of fun and enjoyment in their conversations. The strategic placement of animated GIFs and emojis enlivened communication and broke the monotony often associated with textual interactions. For example, the student employed GIFs, like one of a lively woman opening her arms with the phrase 'I got nothing' or a woman smiling with the words 'Good job' during task discussion

(see Chapter 6, Section 6.3.6). These were playful animated additions and created a more interactively engaging and emotionally rich communication environment. Indeed, Neff and Dewaele (2022) noted the potential of animated visual aids to create humour and elevate enjoyment during language learning. Similarly, Hu et al. (2017) pinpointed the distinctive effectiveness of emojis in generating humorous tones, attributing this to the vast array of expressive characters available. Therefore, incorporating such nonverbal cues strengthens social bonds and reduces the occurrences of potentially embarrassing acts (Chang, 2016; Lu & Wu, 2022), as evidenced in this study.

Gestures and facial expressions aroused enjoyment, happiness and joy, fostering emotional engagement in online language learning, as shown in Excerpt 6.11 (see Chapter 6, Section 6.2.6). In this interaction, students used gestures not only to convey additional information and direct attention to a specific movie character but also to bring an element of amusement on their language practices. For example, Anny did not simply just show a hand gesture as if holding something but played with the gesture by moving it back and forth. Thus, Putri joyfully mimicked this action with a smile, as she understood the messages Anny was conveying. Using gestures and facial expressions in speech amplified verbal jokes and could instil a sense of humour (Buján, 2019). In their interviews and learning journals, students perceived that using nonverbal cues created an enriched learning environment filled with delight and amusement. These positive emotions evoked by such humorous interactions could create an atmosphere that was highly conducive to learning (Moeller, 2021); an example of humour in CMC interactions occurred when Sella shared a GIF of a woman laughing loudly to poke fun at a moment of misunderstanding about transportation to a tourist site. The humour stemmed from Selly's initial refusal to use a motorcycle, under the mistaken belief that she would be required to ride it herself, not realising that she could simply opt for a motorcycle taxi service. In this setting, students were more open, receptive and engaged, which made the learning process more fun, spontaneous and organic. Essentially, this integration of fun into learning through gestures and facial expressions laid the foundation for more holistic and engaging online learning experiences, as this process combined two essential domains in education: the cognitive and socio-emotional (Wang et al., 2022). The involvement of socio-emotional qualities in learning is essential, as it can make learning more enjoyable and exciting, enabling the development of memory formation and recall (Li et al., 2020).

Evidently, nonverbal cues in online learning contexts were the glue for emotional connections between students. Nonverbal elements could signal respect and appreciation that support empathy and solidarity, thus fostering an inclusive task environment (Matsumoto & Dobs, 2017). Simple actions like gazes, nods, smiles and thumbs-up gestures could convey mutual respect, instant agreement and understanding, thereby building a sense of togetherness by bringing everyone closer while reinforcing task engagement. These nonverbal cues were crucial for establishing emotional connections (Hardison & Pennington, 2021), especially when students had never met in person. As in Dobinson's study (2022), playful emojis (e.g., 😍, 😂, 😳, 🤷 or 👋) could break the ice, reduce tension and build relationships among students. Those emojis made interaction more emotionally engaging and appealing and encouraged students to participate actively in the CMC tasks via Instagram.

7.1.2.4 Challenges

While the study highlights the advantages of using CMC tasks via Instagram for language learning, students also identified certain drawbacks and challenges that warrant consideration, such as their reluctance to initiate the tasks via audio and video chat, their struggles with less-enthusiastic partners and network disruption. For example, students expressed hesitation in initiating tasks on Instagram despite their familiarity with the platform. This reluctance appeared more pronounced when it came to completing tasks that involved voice and video, as it was observed that students with low English-language proficiency tended to experience more anxiety when required to engage in voice and video chat compared to text-based interactions (see Satar & Ozdener, 2008). Students often felt that communicating through voice and video chat was more challenging because it needed immediate responses from them, thus increasing their anxiety and pressure to perform without errors. This increased anxiety could be attributed to their limited experiences practising English spontaneously and unrehearsed in these real-time communication channels as their primary use of digital communication (see Chapter 5, Section 5.2.5). In Indonesia, students often lack sufficient opportunities to use English, both inside and outside the classroom, for reasons like time limitations for practising LX, large class sizes, a rote learning approach and the fact that English is not commonly spoken by Indonesians. In the online communication context, they also mostly used text chat to communicate with their peers and family in the Indonesian language.

Another challenge highlighted by students in the interview was their difficulty collaborating with less-enthusiastic partners, despite recognising that CMC tasks generally fostered social connectedness among peers. This issue was evident during a group activity, where students worked in threes to determine essential items for a survival kit. In these groups, some students reported that one of their members contributed minimally in terms of offering ideas or reasoning to help complete the task, leaving the burden on the other two. This scenario hindered the collaborative effort and potentially affected the overall learning experience and outcomes of tasks. This challenge aligned with the findings of Eddy-U (2015), who noted that working with less-active or unenthusiastic peers could hamper task interactions and diminish learning outcomes in FTF settings. This was particularly discouraging for those genuinely committed to maximising the educational benefits of CMC tasks. Such dynamics underscored the importance of effective group formation and peer-interaction strategies in educational settings to ensure that all members were equally engaged and contributed meaningfully to the task. To illustrate, students were sometimes grouped in threes and, at other times, in pairs during this study. In the first task session, I monitored students' interactions and classified them into three levels based on their level of activeness: active, medium-active and less-active students. To ensure diversity in each group, I randomly mixed the students by grouping or pairing active or medium-active students with less-active ones.

The issue of internet infrastructure emerged as a major concern, particularly for students residing in rural areas of Central Java Province. Since this study was conducted in this region, internet connectivity was often less reliable than in urban settings, such as Jakarta, Surabaya and Bali. Students reported frequently facing intermittent service, slow network speeds or high latency characterised by dropped calls, lag or poor video quality, especially during video calls. These limitations affected their full participation in CMC tasks and challenged their focus on task completion. This factor (i.e., an unstable internet connection) confirmed what had been reported in the existing literature: that online video communication might face poor connectivity, which inhibited students' engagement in online interactions by causing delays or lags in the delivery of audio or visual messages (Cunningham et al., 2010; Le et al., 2022; Lee, 2007). These disruptions can hinder the flow of conversations and reduce their motivation to participate more in task completion. For CMC tasks in language learning to be genuinely effective and inclusive in Indonesia, there is a pressing need to address the challenges in the unequal distribution of excellent internet infrastructure and poor internet connections that

students face in this region. While the benefit of using CMC platforms for language learning cannot be disputed, the major setback of the instability of Indonesia's internet in rural areas, in particular, cannot be ignored, either. It forms a major consideration when deciding what teaching mode should or can be adopted.

7.2 Affordances of Instagram chat as a language-learning platform

In contrast to prior research on Instagram for language learning, which predominantly focused on its ability to disseminate photos, images and videos via Instagram captions or stories along with the discussion in the comments section (e.g., Alfadda et al., 2022; Prasetyawati & Ardi, 2020; Tarigan et al., 2021; Wagner, 2021), the present study explored the potential of Instagram chat features as a medium for CMC tasks underpinned by sociocognition, guided by TBLT in task design and motivated by how SLA takes place in authentic task interaction. It examined how students engaged in synchronous multimodal interactions with their peers using text, audio and video chat features outside the classroom. Informed by the sociocognitive approach (Atkinson, 2002, 2010), these findings provided empirical evidence that technological tools could function as a form of extended cognition, where students' cognitive processes were not confined to their minds but intertwined with the external environment, including cultural tools, symbols and interactions with others (Atkinson, 2010).

Expanding on the previous research investigating the benefit of using Instagram's feature of sharing captions and stories with interactive discussion in the comments section (e.g., Gomes Junior, 2020; Yudhiantara & Nuryantini, 2019), this study found that Instagram's multimodal chat expanded students' authentic learning environment, as it encouraged students to complete the communicative tasks similar to those they frequently performed in their daily interactions using social media and other online communication platforms. Unlike FTF settings, Instagram offers a flexible platform that allows students to communicate in many different modes, including text, images or audio-visual content anytime and anywhere (Alfadda et al., 2022). For example, the responses from the surveys and interviews indicated a preference among students for text chat as the primary communication channel for language learning compared to voice or video chat. Some students, however, concerned about developing their oral communication skills, tended to choose audio and video chat more often instead. This adaptability in communication modes could accommodate different learning needs, making the

educational experience more personalised and inclusive (Alobaid, 2020). Indeed, with its range of communicative options, Instagram's suite of multimodal chat features could be a valuable tool in education that can provide a space where learning can be tailored to diverse learning needs and interests. The findings confirm the association of Instagram with the development of communicative skills (see Al-Garawi, 2019; Hilman, 2019; Prasetyawati & Ardi, 2020). For example, Instagram has been observed to help students develop their writing skills. It occurs as Instagram helps students organise their ideas more effectively, supported by the integration of images or videos into their writing. Furthermore, Instagram facilitates a lively feedback process wherein students can receive and respond to critiques from their peers on their posted work. Put differently, multimodal Instagram chats could bolster specific communication skills (i.e., the use of text chat was likely to improve written communication skills, whereas audio and video chat could help develop speaking skills). Therefore, each Instagram chat mode can support the development of spontaneous and real-life English communication skills. In the case of text chat, students perceived that it potentially enhanced their unrehearsed written communication skills, allowing them to carefully respond and plan their messages. For example, in his interview, Ikeas described how text chat afforded him the opportunity to carefully compose and revise his sentences to maintain accuracy before sending them to his communication partner. Planning time granted students greater autonomy and self-control over their learning pace, which was important in real-time communication. Unlike spoken conversation, which demands immediate responses, text chat allowed students to take a moment to plan to formulate their thoughts, structuring their sentences and considering their word choices (Zhang & Wu, 2022). During the text-chat interaction, students had the advantage of being able to delete their typed words and rework their output. This revision process provided a unique opportunity for them to edit and polish their responses to improve accuracy and clarity, effectively using the chat as a dynamic writing and editing space (Placiński, 2022).

Moreover, the inherent flexibility of text chat was also a beneficial factor for students who needed additional time to process language. It was essential, especially for those at lower proficiency levels, like most of students in this study, who were at the A2 level of the CEFR scale. Compared to voice or video-based chat, which expected immediate responses in communication, the slower pace of text communication enabled students to identify and correct their own errors as a critical part of their language-learning process. This finding supported previous research by Chen and Kent (2020) and Chen (2016b) that posited that reflecting on

past language use and task performance during CMC task interaction increased students' 'metalinguistic awareness' (Chen & Kent, 2020, p. 9). This awareness of self-correction and revision improved students' accuracy in grammar, vocabulary, punctuation and overall writing style. The current study findings further supported Sanchez-Castro's (2015) experiment, which found the importance of self-control in learning that allowed students to take time to read and understand messages carefully. Batianeh (2014) also underscored that social-media platforms could substantially improve writing practice by offering instant feedback that could benefit students, where they could quickly understand their mistakes or receive constructive suggestions from their peers. This immediate feedback mechanism of the text chat offered a more authentic and viable learning experience, as opposed to the delayed revisions typically provided by teachers in FTF classroom settings, where feedback on writing tasks is often delayed.

In terms of audio and video chats, students used audio interaction archives or recorded video chats to review their prior activities. They engaged in this review process to identify areas of strength and weakness in their language use. For example, Anny and Sella mentioned in their interview that, by revisiting these recordings, they became aware of their pronunciation and listening challenges during audio chat interaction and when they compared their pronunciation with their more-proficient peers (see Chapter 5, Section 5.1.1). They developed strategies to enhance their learning by seeking additional input resources from online videos to improve their pronunciation skills. This metalinguistic awareness highlights how students use recorded interactions as tools for strategic learning (Chen & Kent, 2020), which allow them to modify their learning models based on their interaction with the environment, people and experiences. This evidence aligns with a key principle of the sociocognitive framework, which views learning as an adaptive process. According to this principle, students often adjust their learning practices in response to feedback gained from the environment and interactions with more-competent speakers (Atkinson, 2010, 2014). Despite the positive evidence supporting the utility of voice chat, this study also highlighted challenges encountered in voice chat. Some students found it quite difficult to understand their partners, who had various styles of pronunciation and accents that diverged from the standard American English pronunciation to which they were mainly exposed in school. This issue opened up an avenue for recognising and embracing the variety of world Englishes (Kim, 2024), given that the students involved in this study came from varied L1 backgrounds, which might influence their English accents. As

Almusharraf (2021) suggested, students were learning to appreciate linguistic diversity, moving beyond the goal of achieving 'native'-like accents and challenging traditional notions of 'native' speakerism.

The findings also highlight the advantages of Instagram video chat's synchronous and immediate nature for language learning. According to Lenkaitis (2019), the real-time, spontaneous, unrehearsed interaction offered by video chat is instrumental in enabling students to practise and refine their speaking skills and attain fluency continually. This immediacy is crucial for enhancing spoken skills because it necessitates engaging in unrehearsed and spontaneous conversation, mirroring real-time task interaction. Moreover, video chat is vital in bolstering students' confidence and fostering a sense of competence, as video chats simulate FTF interaction where all the nonverbal cues are present and provide immediate feedback. The regular use of video chat for communication allows students to become familiar with the stressors of real-time language use and gradually reduce their anxiety. The affordances of video-chat observed in this study diverged from the findings of Ibrahim and Hashim (2021), who noted that video chat encouraged students to speak more and helped them overcome the nervousness associated with learning LX. This study, however, evidenced that the confidence-boosting effect of practising English via video chat did not apply universally to all participants, especially at the beginning of the task sessions. For those with lower English proficiency, higher anxiety was experienced during the initial video-chat sessions (see Satar & Ozdener, 2008). These students with lower proficiency levels, characterised by limited vocabulary and less grammar knowledge, often feared making mistakes and being judged by their peers because video chat involved telepresence, which required students to show their faces as opposed to hiding behind the screen as in text or audio chat, as expressed in their journals and interviews (see Chapter 5, Section 5.2.5). Over time, however, students with lower proficiency levels began to recognise the advantages of video chat, as discussed in section 5.1.2, indicating a gradual acclimatisation to the medium.

7.2.1 Multimodal interactive alignment

According to the alignment framework posited by Pickering and Garrod (2004), people synchronise their mental representation of language during a conversation to maintain the flow and achieve a successful dialogue. This synchronisation occurs across multiple dimensions,

including phonological, syntactic, semantic and situational representation. It fosters mutual understanding between the conversational partners. Interlocutors can coordinate their communication more effectively and achieve successful communication by aligning their language use in the phonological, syntactic and semantic dimensions. Extending previous research on alignment phenomena, such as syntactic alignment (see Dao et al., 2018), linguistics alignment (see Reitter & Moore, 2014) and multimodal alignment, which includes gaze and gestural alignment during in-person interaction (see Oben & Brône, 2015, 2016), this current study thoroughly investigated how these alignment phenomena manifest in digital communication. Specifically, it explored the multimodal interactive alignment within online conversation, focusing on interactions in Instagram text and video chats that might contribute to a more holistic understanding of communication practices in online settings, bridging the gap between FTF communication studies and the evolving landscape of digital interaction.

As evidenced in this study, students employed a variety of nonverbal modes, in addition to verbal cues, to align with their partners' language use interactively in their Instagram CMC tasks. Students used these modes, which varied depending on the different features available within each engagement platform, such as emojis and GIFs, during text chat interaction. For example, throughout text chat conversations, students often mirrored one another's use of emojis and GIFs, using emojis like 🤔 (thinking face), 😊 (smiling face), 👋 (hand waving) or animated GIFs, such as one showing a woman crying and thinking of a financial loss to make justifications more concrete and clearer to interlocutors during task negotiation. In other words, students adaptively adjusted their use of emojis and GIFs to ensure clarity and reduce the likelihood of miscommunication. To illustrate this, the 🤔 (thinking-face) emoji was often used to request validation or agreement and was typically used following questions (see Chapter 6, Section 6.2.1). This emoji, however, sometimes appears after a statement asking for another person's thoughts implicitly without repeating the question, 'What do you think?' It is in line with Michel and O'Rourke's (2019) finding that speakers tend to adjust their language use pragmatically to maintain the flow of conversation and often use such tactics unconsciously. Indeed, students also employed multimodal alignment in various parts of their conversation, including negotiating agreements, discussing the content and during the opening and closing of tasks. The repeated use of emojis and GIFs went beyond functional purposes. It played a key role in constructing coherent conversation, establishing shared understanding and

reinforcing group solidarity (Pérez-Sabater, 2021), thereby enhancing comprehension and cohesion among the interlocutors.

Similarly, students strategically reused gestures, facial expressions and proxemics to draw attention and assist interlocutors in co-constructing meaningful negotiations during video-chat interactions. These nonverbal cues are crucial in enhancing the effectiveness of their communication. For example, a student embodied an interlocutor's iconic hand gesture, which involved extending the thumb, index and little fingers outward, mirroring Spiderman's hand gesture when doing a web-shooting (see Chapter 6, Section 6.2.4). This kind of gesture replication emphasised essential points in the conversation (Bressem, 2021). Another observed strategy was the alignment of facial expressions to convey the process of thought and inquiry. Students were observed shifting their expressions to thinking and questioning faces when encountering challenges in the negotiation process and reverting to their usual expressions once the issue was resolved (see Chapter 6, Section 6.2.3). This adaptive use of nonverbal cues substantiated the premise that students modified their communicative behaviour depending on the communication medium. In the video-based chats, they used the available nonverbal cues, such as gestures and facial expressions, while, in the text-based chats, emojis were used effectively. This behaviour indicated that participants in the communication process adapted and aligned their interaction to accomplish their communicative objectives, using semiotic resources within the discourse of their task engagement (Atkinson, 2011b, 2014). Such adaptability in using nonverbal cues demonstrates the students' competence to tailor their communicative approach to suit the demands and opportunities of different communicative environments, as in the case of Instagram.

To conclude, this study provided new insights into how multimodal interactive alignment was mediated by various social semiotic resource affordances in each Instagram chat channel. It extends the previous research focused on alignment at the linguistics level, which primarily pertained to language accuracy (Kim et al., 2019) and communicative success (Tecedor, 2016; Tekin et al., 2022). This research illuminated the importance of alignment at the nonverbal levels in communication. It highlighted how interlocutors rely on verbal cues and actively incorporate a broader range of nonverbal elements to foster conversational fluency and achieve communicative success. This finding resonated with Atkinson's (2011b) assertion that language learning and use are both complex and holistic processes in which students need to

engage with a language on multiple levels, not just linguistics and verbal levels but also nonverbal ones within different social settings. This study demonstrates that individuals use language and various semiotic resources as viable communicative tools to fulfil their social actions within diverse environments. This holistic approach suggests a more integrated view of communication wherein verbal and nonverbal elements are seamlessly and organically blended. Such a unified integration contributes to a more well-rounded communicative experience, acknowledging the complexity and richness of human interaction, especially in digitally mediated environments like Instagram chats. This holistic perspective offers a more comprehensive understanding of CMC task interaction and emphasises the importance of a multimodal approach in the context of online social interaction.

7.3 Summary

In this discussion, which is based on my findings viewed through a socio-cognitive lens, I have argued that incorporating CMC language-learning tasks with Instagram chats can influence student engagement in terms of motivation and confidence as well as affect student experiences in terms of connection, digital literacy and challenge. The use of such online tools also has wider implications beyond the virtual, informal classroom, which will be outlined in the conclusion and implications in Chapter 8.

The integration of communicative tasks with multimodal CMC via Instagram appears to boost students' motivation, engagement and digital literacy. Additionally, these interactive and authentic tasks can help reduce language-related anxiety among students and contribute to a supportive learning environment. An important outcome of this approach is the development of a sense of community among peers. There was a noticeable enhancement of students' understanding of the functionalities of Instagram and other digital tools, indicating a broader effect of the tasks that extends beyond language skills to encompass comprehensive digital literacy. By integrating communicative tasks into CMC platforms, especially Instagram, the learning process becomes more relatable to students' everyday digital interactions, making it more engaging, meaningful and enjoyable. This integration will likely prompt students to be more actively involved in language-learning tasks and dedicate their efforts to achieving task objectives. In the context of CMC task interaction, it was observed that nonverbal cues play a vital role, especially in fostering mutual understanding and maintaining the flow of

conversation. These cues act as important aids for assisting students in clarifying and emphasising the intended meaning of the essential points in their messages. The use of nonverbal cues addresses the limitation of relying only on verbal communication, which may fall short of conveying the full scope of the message. Indeed, nonverbal cues also serve to break the ice, reduce tension and build relationships among students during task interaction. Despite its benefits, the integration of communicative tasks with CMC is not without challenges. Some notable issues were encountered, including student reluctance to initiate tasks that involve voice and video, a lack of enthusiasm from some students, which hindered the effectiveness of tasks and unreliable internet infrastructure, especially in rural areas.

This study departs from previous research on the use of Instagram in language learning, which has primarily focused on the platform's posting and commenting functionalities. Instead, this current study explores the possibilities offered by Instagram's chat features as a medium for fostering interaction. When examined through a sociocognitive lens, the empirical evidence strongly suggests that technological platforms, such as Instagram, serve as extensions of cognitive processes and enrich learning experiences. This standpoint posits that digital tools do not merely facilitate learning but are integral communication components that expand and enhance cognitive capacities. The informal atmosphere of Instagram creates a more inclusive, vibrant, natural and multimodal learning environment that encourages students to perform communicative tasks more willingly. Instagram chat, including text, audio and video, offers personalised preferences for students to foster communicative skills using a specific tool. Text chat helps students refine their writing skills by providing more self-control over the pace of their interaction and instant access to correction and feedback tools. This adaptability makes learning less pressured. Audio and video chat are beneficial for refining speaking skills and building confidence, providing immediate interaction that simulates spontaneous and unrehearsed communication similar to what students usually do in daily conversations. Overall, the study foregrounds the importance of using Instagram chat to foster students' interaction and participation in language learning.

The role of nonverbal cues, including gestures, gaze, facial expressions, emojis, images and GIFs, can be crucial for fostering mutual understanding and shared cognition in online learning contexts. They may construct comprehensible messages and act as vital aids to clarify meaning. By setting the context and expressing emotion, nonverbal cues enrich the affective aspects of

learning by infusing fun interactions and reducing tension. In other words, nonverbal cues can be instrumental in fostering emotional connections, group cohesion and a sense of community and belonging. Moreover, nonverbal cues are multifaceted and important tools for enriching students' learning experience by synergising cognitive and emotional elements. Integrating nonverbal cues into the online learning environment contributes to creating a more comprehensive online learning environment where students are not only intellectually but also emotionally invested, contributing to a dynamic learning experience.

Ultimately, emojis, GIFs, gestures and facial expressions can be used to align interactions and foster conversations in digital communication platforms, especially in Instagram chats. Students' adaptive and strategic employment of these nonverbal cues or paralinguistic elements serves to sustain interaction. These nonverbal cues also cultivate a conducive and positive atmosphere for online communication. They foster an enhanced sense of mutual understanding among participants and bridge the gap between digital communication and the nuances of FTF in-person interaction. By incorporating a multimodal approach to interaction, students create interactive alignment during task interaction by integrating various modes, including verbal and nonverbal cues, aligning their digital communication more closely with that conducted in natural FTF settings.

Chapter 8
Conclusions

This chapter summarises the current study, which aimed to explore Indonesian students' experiences and interactions while using CMC tasks via Instagram to foster their English communication. I begin the chapter by discussing the broader implications of the findings regarding their potential contributions to evolving pedagogical practices, as well as theoretical and methodological approaches. Subsequently, the chapter also presents the limitations of the study and offers a set of recommendations to guide future research on this topic. These recommendations are based on the insights gathered from the study and are intended to inspire further scholarly exploration in the interconnected environment of language learning, task design, multimodality and digital communication platforms. The chapter ends with a synthesis of key propositions and the directions for future research.

8.1 Implications for theory and methodology

Grounded in the sociocognitive framework, this study investigated using CMC tasks to foster English-language learning via Instagram chats outside the classroom. The interdisciplinary approach of this research contributes to scholarly discourse in areas like the research on technology mediated TBLT, multimodality and interactive alignment within language learning in the CMC contexts. By investigating students' digital behaviours during task interaction in informal settings, this research notably expands our understanding of how social-networking tools, especially Instagram, can support LX acquisition (Reinhardt, 2019). Furthermore, this research posits that Instagram is a platform for social interaction and an extension of the cognitive processes involved in learning (Atkinson, 2014). Through its unique multimodal communication features, Instagram has become a dynamic environment where language learning can be integrated into students' daily digital practices. Indeed, it points out the contemporary perspective on how social media supports language learning by providing authentic, engaging and interactive environments and redefining the role of social-media platforms as an extension of cognition in an educational context.

Complementing existing research on CMC and language learning (e.g., Chen, 2020; Kessler et al., 2020; Maa & Taguchi, 2022; Namaziandost et al., 2021), this study supports the notion that language learning is influenced by the interaction between individual cognitive process and the social context in which these processes occur. The findings support the sociocognitive theoretical view that social interaction is integral to language learning, and that, as well as internalising linguistic knowledge, students must also participate in its social uses. Alongside social interaction, communicative tools like Instagram and semiotic resources facilitate cognitive development. Drawn from students' interviews, surveys and learning journals, the students' reported experiences indicate the necessity of integrating cognitive and social factors into language learning. This is particularly crucial when students engage in tasks designed to facilitate authentic and meaningful communication that reflects real-life language use. Students' use of nonverbal cues for online interaction reveals the adaptive and multifaceted nature of language learning, particularly in the digital environment. This adaptability is evident as students creatively use Instagram features to navigate around their limitations, such as gaps in their vocabulary or understanding of specific linguistic structures. For example, when students find themselves unable to express a thought or concept due to gaps in their linguistic knowledge, they do not simply give up or leave the message incomplete. Instead, they use emojis, gestures, images or GIFs to convey their emotions and actions, add context, clarify intentions or even carry the main message without words (Ercan, 2021; Seo, 2021). The use of semiotic resources for communication reflects the complex reality of language use in the digital age, where students employ diverse tools to express themselves and achieve their communicative goals.

Additionally, in this current study, nonverbal cues are shown to be instrumental not only in supporting positive psychological and affective responses but also in overcoming the barrier of limited verbal proficiency during task interactions. For example, in text chat exchanges, students frequently mirrored each other's use of emojis and GIFs, adopting emojis like 🤔 (thinking face), 😊 (smiling face) or 👋 (hand waving) or selecting animated GIFs that convey more complex emotions, such as one depicting a person pleading with hands clasped in front of their chest to request more detailed information during the negotiation of an agreement. This visual language does more than just clarify the communication; it also infuses a sense of fun and emotional connectivity into the learning process. Similarly, in video-chat exchanges, the use of gestures complements students' lack of vocabulary, acting as input enhancers and output

modifiers to make intended meaning more comprehensible in task interaction, particularly in the negotiation of meaning (e.g. Canals, 2021; Lee et al., 2019). The findings of this current study augment the existing research by illustrating that language learning involves not only verbal interaction for the negotiation of meaning (e.g. Chen, 2018; Van der Zwaard & Bannink, 2019) but also the strategic use of nonverbal cues as integrated elements to foster meaningful interaction. The inclusion of nonverbal cues emphasises the complex and varied nature of communication in online educational settings.

Using MIA to examine students' interactions in the context of online language learning has several important implications for research. First, this analysis enhances understanding of the diverse methods adopted by students for communication in digital space, not just through spoken or written language but also through the incorporation of different semiotic resources, such as text, speech, emojis, GIFs and gestures (Norris, 2004; Norris & Pirini, 2016). It also enables researchers to examine holistically, and more closely, the different modes present in the interaction and consider their potential roles in communication, such as conveying emotion, facilitating comprehension and enriching engagement. Furthermore, this approach helps the researcher identify how the different modes work together to create meaning and the pattern that occurs when those modes are used in an online language-learning context. For example, students often employed 😍 (smiling face with heart-eyes emoji) to show excitement and agreement or resorted to gestures as a supplementary means of description when they encountered difficulties expressing concepts in English. My interest as a researcher lies in exploring the methodological underpinnings and technological tools vital for conducting analysis, like ELAN. This approach aims not only to augment linguistic data analysis but also to incorporate valuable perspectives from the social, linguistic, psychological and affective dimensions. This comprehensive approach promises to expand our understanding of online language-learning interaction, including how students express emotions and handle social interactions (Wilmes & Siry, 2021). This methodology also aligns well with task-based learning approaches by revealing how students navigate and complete tasks using various modes of communication. It offers valuable information for designing task-based activities that resonate with students' communication habits.

8.2 Implications for pedagogy

The current study demonstrates the benefits of incorporating TBLT with CMC platforms, particularly Instagram, to foster language use and enhance the affective aspects of language-learning experiences, including engagement, motivation and enjoyment (see Chen, 2018, 2023; González-Lloret, 2015). By employing CMC tasks that emphasise the use of language as a tool for communication in completing meaningful tasks related to students' learning needs and interests, this study shows how these tasks can maximise the interactive and authentic nature of Instagram to potentially foster students' learning experiences. During the COVID-19 pandemic, when educators had to shift to a fully online format due to social distancing and lockdowns, the importance of using social-media platforms for educational purposes and human connection via social networking that breaks physical boundaries became more evident (Chen, 2021). This is particularly the case in a university in Central Java Province, Indonesia, where Indonesian teenagers use Instagram widely. The visual and interactive features of this platform can maintain students' engagement during LX learning. Furthermore, they provide an online environment that closely mirrors students' daily life interactions. This current study underlines this integration as a viable pedagogical approach that might create an informal learning environment to reinforce cognitive skills and emotional involvement for students pursuing additional language-learning opportunities beyond the formal classroom setting. By situating language learning within this context, students are likely to find an appealing way to practise and improve their language skills.

Thus, for educators, integrating a task-based framework with Instagram chats offers unique opportunities to blend the goal-oriented nature of task-based language learning with the dynamic essence of the social-media platform. By employing Instagram chats for educational purposes, instructors can create scenarios that parallel real-life activities and bring a sense of authenticity to the learning process. This platform also encourages students to participate in spontaneous communication that might foster their fluency and confidence. In addition, this interaction with their peers provides an invaluable opportunity for students to use the target language in diverse real-world contexts. Such unrehearsed communication mirrors the natural way language is used and learned outside of academic settings and contributes to students' learning engagements. This aspect is crucial in the field of LX acquisition, where emphasis is often placed on authentic (or semi-authentic) language use and the practical application of

linguistic skills. Moreover, Instagram's multimodal features enrich task delivery and engagement by providing various semiotic resources for information exchange and social cohesion during online interactions. The social-networking aspect of Instagram also facilitates active collaboration and social ties among students. It bridges the gap between formal classroom learning and real-life language practice outside the classroom, thus helping students become more motivated and confident in using English for communication (Devana & Afifah, 2020). This is particularly important in Indonesia, where English is often learned in formal, teacher-fronted academic settings.

Adopting a sociocognitive approach as a framework (Atkinson, 2011b, 2012, 2014), the study found that the multimodality rendered by Instagram chats became an effective medium for developing English communication skills in Indonesian contexts. These multimodal chat channels and semiotic resources extend cognitive and social processes to provide authentic and semi-authentic linguistic exchanges and engage students in everyday English conversations. In other words, Instagram chats present valuable learning environments that replicate how students interact and communicate daily, making the learning process more relevant and meaningful to them. Furthermore, it underscores the concept of multimodality, which suggests that effective communication in learning should encompass various modes and extend communication beyond classroom settings and physical boundaries (Bouchey et al., 2021). As the students partake in various communication options in communicative tasks that imitate real-life interactions, they must learn to creatively select and use these different modes to exchange their thoughts successfully. Additionally, employing verbal and nonverbal cues can help clarifying and strengthening their intended messages (Canals, 2021). Doing so can make learning more holistic and integrated, incorporating different forms of communication modes, such as visual, auditory and digital, to better reflect the diverse ways in which students engage with information and with each other in the real world. Because participating in the task supports, reinforces and consolidates newly acquired knowledge (Suvorov & Gruba, 2023; Tzimou, 2017), it enables students to apply their learned knowledge across different contexts.

Instagram chats also allow students to transcend physical boundaries and open up opportunities for students to engage in real-time conversation spontaneously, interactively and flexibly from anywhere and anytime. This spontaneous interaction with their peers provides an invaluable opportunity for students to use the target language that simulates diverse real-world contexts

(Ramazanova et al., 2022). Through Instagram chat tasks, students encounter a variety of linguistic inputs and are obliged to produce language outputs in response. Depending on the type of task, this process often involves the negotiation of meaning, where students need to modify their language by clarifying or seeking further information to keep the flow of the conversation going (Chen, 2018). This negotiation can push students to use the language more comprehensibly (Pica, 1996), helping their language-acquisition process and stimulating a more organic learning experience where they can explore, make mistakes and learn without fearing judgment or failure (Varonis & Gass, 1985).

This current study introduces a fresh perspective on integrating nonverbal cues into English-language teaching in Indonesia, underscoring the importance of both educators and students and raising their awareness of using nonverbal cues in communication. It demonstrates that involving nonverbal cues in online educational interactions, particularly in LX-learning contexts, enhances the emotional and contextual quality of interactions (Han, 2013). This is brought about by the cues' ability to convey emotion, enhance understanding and boost engagement among students. This insight builds upon previous research that focused mostly on how teachers use multimodality to present materials (see Ilmi & Dewi, 2022) or how students leverage multimodal resources to create digital text (see Fauziah & Diana, 2023). Given the growing emphasis on digital literacy within Indonesian educational contexts, the current study is vital in offering awareness for educators who look to promote the use of nonverbal cues as a tool for teaching English in more innovative and contemporary ways, especially online and outside the classroom setting. For example, encouraging students to use emojis, GIFs and images could make learning more engaging and fun. Similarly, employing video-chat tools facilitates the use of gestures and facial expressions to provide a more natural language-learning environment that acknowledges tone and body language (Yeh et al., 2022). This approach enriches learning experiences and strengthens the position of nonverbal cues as vital components in the language-learning process because it reflects real-world language use. This shift is crucial for cultivating holistic communication, equipping students with skills to navigate comprehensive interaction involving thoughts and emotions (Burgoon et al., 2022).

This current study also demonstrates the pivotal role of multimodal alignment when students adapt their cognition and behaviour to an online language-learning environment by using the semiotic resources offered by CMC platforms, such as Instagram chats, to achieve their

communicative goals. It illustrates that language learning is not limited to a conventional boundary of formal academic settings, such as classrooms, but can also occur in informal and social contexts (Alazemi et al., 2023). Whether through casual conversations, social-media interactions or everyday activities, opportunities for learning and acquiring a new language outside the formal classroom are plentiful as long as students can engage in the environment that promotes target language use. By employing visual, textual and other nonverbal elements, students can maximise the potential of various nonverbal cues to achieve their communicative objectives. This adaptation ensures the continuity of the conversation. It effectively communicates the intended messages, including the social and emotional dimensions inherent in online interactions, by playing out multimodal alignment in social and emotional dimensions (Belío-Apaolaza & Hernández Muñoz, 2021).

Additionally, multimodal alignment strengthens the vital role that nonverbal cues play in LX online pedagogy, as students integrate those cues, along with linguistic expressions, to foster meaningful interactions within the target language community (see Cappellini et al., 2022; Rasenberg et al., 2020). As highlighted by this current study, the nature of students' interactions indicates that students naturally adapt their cognitive and behavioural actions to align with the dynamics of the online environment, particularly within the Instagram platform. This adaptation includes the use of nonverbal cues to convey important information, foster shared understanding and build social connections, thus enhancing communication effectiveness during task interaction. Therefore, it is incumbent upon language educators to promote the role of semiotic resources to enhance their pedagogical approach and present students with more interactive learning experiences beyond only verbal instruction. For example, educators can encourage their students to include multimodal elements along with verbal cues for online English communication, simulating the complexity of real-world interaction. These elements facilitate interactivity and language development and foster a sense of social presence and community among students (Tang & Hew, 2020).

8.3 Limitations of the Study

While this study offers valuable insights into the role of multimodal CMC tasks in fostering English communication, it is not without limitations. The primary limitation is that the research

focuses solely on Instagram chats as a widely used social-media platform in the Indonesian context. It offers a detailed exploration of language-learning dynamics in a social-networking environment. This specific choice of context might not fully represent the broader spectrum of global digital-communication tools. Other platforms are X, with its emphasis on brevity and hashtags; LinkedIn, which promotes professional and formal language use; and Reddit, which hosts a wide range of topic-specific communities. Each platform's unique interface and user experience can offer distinct opportunities and challenges for students, from the casual, conversational language exchanges in messaging apps to the structured curriculum-based learning in educational platforms. Understanding this varied context is essential for a holistic view of additional language or dialect learning in the digital age.

The specific focus on Instagram chats within the rural Indonesian context might limit the external validity and trustworthiness of the quantitative and qualitative findings. The findings may not be easily applicable to other digital environments that are distinct in cultural, age and socio-economic aspects. Cultural nuances play a vital role in shaping online communication practices (Masterson, 2020). What holds true in the Indonesian context may not necessarily reflect students' experiences in other cultural settings. Language learning via social media is deeply influenced by the platform's features and the pattern of user engagement, which are further shaped by users' age, socio-economic status and cultural backgrounds. Thus, while this study offers insightful observations on optimising Instagram chats for language learning in an Indonesian rural university, extending these findings to other contexts, even those within Indonesia, requires caution and further investigation to account for the varied landscape of digital communication and bearing in mind the wide-ranging socio-economic conditions, ages and cultural backgrounds of participants.

The design and selection of tasks in this study were meant to reflect the students' daily needs and communication via Instagram. This approach aimed to ensure their relevance and applicability to the participants' real-life experiences. Despite these efforts, however, the scope of tasks was confined to the functionalities within Instagram features, including text, audio and video chat. The scope of this study was deliberately narrowed to concentrate on the intensive communication process among students in pairs or small groups within the context of Instagram as a CMC platform. This decision meant that not all features available on Instagram were examined. Specifically, the investigation focused solely on the chat features of Instagram,

excluding other commonly used features, such as posting images or video stories or engaging in comment sections. This limitation was due to time constraints and the capacity to manage the data, aiming to maintain the study's depth and manageability. This limitation points to the necessity of investigating all Instagram features in future research to fully capture the diverse and rich opportunities Instagram presents for language learning and engagement.

Additionally, the study involves a relatively small and homogenous aged group of students all of whom share relatively similar educational backgrounds within the context of a rural university in Indonesia. The lack of diversity among participants means that the findings may not accurately reflect the varied experiences of students with different backgrounds, approaches to learning or English-language proficiency levels. This homogeneity, however, offers a unique opportunity to deeply understand the affordance of Instagram chat and the challenges faced by Indonesian rural university students in one particular setting. It allows for a focused examination of how the students interact with and benefit from using communicative tasks and Instagram chats to foster English communication. This study can provide valuable insights into the efficacy of CMC tasks via Instagram and the role of peer interactions in language learning in a rural university context. While the results may have limited generalisability across broader populations, they offer critical insight into optimising CMC tasks for similar contexts and identifying areas where targeted support can enhance learning outcomes.

Another limitation of this research was the set of challenges posed by conducting MIA on audio chat interactions. The quality of the audio recordings presented a notable obstacle, with the suboptimal sound clarity affecting the analysis process. This issue was particularly problematic when attempting to discern and interpret nonverbal cues. Elements like tone of voice, loudness and intonation were important in conveying emotions and attitudes in spoken language. The poor audio quality, however, hindered the ability to accurately identify and analyse these subtleties. This challenge affected the depth and reliability of the MIA and limited the researcher's ability to understand audio-based communication's complexities. To mitigate this issue, future research involving audio analysis must prioritise high audio-recording quality to ensure the effectiveness and reliability of data analysis.

8.4 Recommendations for educational policymakers, teachers, and schools

Based on the research findings, it is recommended that teachers integrate Instagram-based tasks into their lesson plans. Such tasks could include various interactive language exercises, collaborative projects and cultural exchanges designed to motivate students to apply the target language within real-life scenarios. A key strategy involves embedding culture directly into the curriculum by developing culturally and contextually resonant activities for students living in rural Indonesian areas. Through Instagram, educators can share and celebrate local stories, folklore and traditions in the target language, making the learning experience more engaging and deeply meaningful. Additionally, creating language-learning groups on Instagram presents a valuable avenue where students can hone their conversational skills, exchange insight and offer peer support. Such platforms foster a nurturing and supportive community where learners are more inclined to participate actively in language practice bolstered by the encouragement of their peers. It is recommended that, in designing communication tasks through Instagram channels, educators could begin with text chat, which is more familiar to them, before encouraging them to try out audio and video chat. Setting clear goals for students is also important, as it helps them understand that exploring different communication channels can enhance their learning. Furthermore, in developing tasks that incorporate Instagram technology, educators should consider the students' communicative needs in relation to the Instagram channels to foster a more conducive learning environment (see González-Lloret, 2014; González-Lloret & Rock, 2022). To fully maximise the educational potential of Instagram, conducting workshops that guide students on the effective use of mobile devices for learning is essential. These workshops should highlight how Instagram can serve as a valuable educational tool. Equally important is providing professional-development opportunities for teachers, focusing on integrating social media into educational approaches. This learning would maximise teachers' instructional benefit while effectively navigating and minimising potential distractions.

In Indonesia, many students face economic disadvantages that impede their access to digital learning resources. While most students possess personal smartphones, not all can afford a data plan to access the internet. To address this issue, schools can collaborate with telecommunications companies to offer subsidised or free data plans to students in rural areas, ensuring that financial constraints do not prevent access to online learning resources.

Additionally, schools could propose that the government establish community internet hubs in rural areas. These hubs offer high-speed internet access dedicated to educational purposes that can support students who lack personal internet access at home. These hubs could also be equipped with necessary devices, such as tablets and computers, so students who do not own such technology can still engage with digital learning platforms. Beyond these immediate solutions, there is a broader imperative for government to invest in rural areas' digital infrastructure. Enhancing the reliability and affordability of internet access in these communities is foundational to democratising the use of Instagram and other online learning tools for educational advancement. It is also suggested that educators living in rural areas might opt for platforms that require less bandwidth, such as audio-only sessions or text-based communication, to facilitate smoother online interactions.

Additionally, the findings strongly reinforce the schools' need to conduct English extracurricular activities that are accessible via mobile phones in their policies. These activities should be designed to complement classroom instruction by offering students opportunities to engage in educational content that reinforces and expands upon their classroom learning. Potential activities could include completing communicative tasks or playing language games to enhance learning outcomes and maintain students' engagement with English outside classroom hours. Furthermore, it is critical to establish a framework for monitoring and evaluating the effect of these additional learning activities on students' engagement and academic progress. Collecting feedback from students is vital, as it enables teachers to make the necessary adjustments and improvements to these extracurricular activities outside the classroom to engage students as partners and co-designers.

8.5 Recommendations for future research

The findings of this current study provide a fertile ground for enriching the landscape of online language learning, mainly through the integration of TBLT, multimodality and social media. They offer several critical recommendations for forthcoming studies. First, future research might consider integrating robust task-based instruction frameworks with various social-media platforms (Smith & González-Lloret, 2021). For example, using X's microblogging format might offer insights into concise, effective language use, or using LinkedIn might provide unique formal and professional contexts for language learning and more context-specific

language-learning tasks. This combination of structured instructional approaches with social media's dynamic, informal environment could lead to innovative learning experiences. These experiences would blend the formality of structured learning with the spontaneity of social media interactions. Integrating TBLT with different social-media contexts would enable researchers to operationalise CMC tasks in a multimodal communication environment.

Second, there is a crucial need for future research to explore multimodality across a diverse range of social-media platforms. As evidenced in this current study, multimodality enhances the learning experience in real-time task interaction, particularly for those who may not yet have the requisite language proficiency and skills to complete the task effectively. This approach integrates a variety of communicative modes, including images, emojis and gestures, which provide students with a richer set of semiotic resources to express themselves (Hancock et al., 2023). For example, when students struggle to recall or do not know a specific target word, they can resort to a related image, emoji or gesture to convey their meaning. This visual support not only helps bridge communication gaps but also encourages continued engagement with the tasks without being hampered by the limitations of language (Yudintseva, 2023). Future studies could consider examining how multimodality supports language learning, especially by investigating how students interact with the predominantly visual and auditory landscape of platforms like TikTok, Triller and Likee.

Third, given that this current research focuses only on direct communication within Instagram's chat features (text, audio and video chat), it is necessary to encompass the full range of interactive features available on the platform. For example, future studies might consider innovatively integrating tasks that involve posting images and videos, creating and responding to Instagram stories and actively participating in comment sections (see González-Lloret, 2015; González-Lloret & Ortega, 2014a). These features represent important aspects of users' engagement on Instagram and offer a rich context for authentic language use and cultural exchange. By designing language-learning tasks that maximise these functionalities, researchers can explore how different types of Instagram interaction contribute to various language-learning outcomes, such as writing skills through comments, narrative abilities through Instagram stories and oral communication through video posts. An area of interest could be examining the relationship between the type of task and the extent of language output both quantity and quality, across different Instagram communication channels (see Chen,

2018). Such research is crucial for shedding light on advancing our knowledge in the fields of technology mediated TBLT, multimodality, SLA and social networking. This expanded approach will provide a more holistic understanding of Instagram's potential as a language-learning tool and align language-learning activities more closely with students' real-world social-media practices. Thus, it can enhance the authenticity and relevance of language-learning experiences on social-media platforms.

Additionally, further research on incorporating MIA into language assessment is essential to fully appreciating and understanding the depth of students' communication skills in the current multimodal online platform. This inquiry can lead to developing and validating cutting-edge assessment rubrics that capture the comprehensive nature of interaction, including verbal and nonverbal cues (e.g., Ross et al., 2020). Traditional assessment techniques, which often focus on isolated language skills or simplistic measures of participation, fall short of capturing the nuanced ways students engage with content and each other in these rich digital spaces. The proposed future research would fill this gap by establishing new metrics for criteria that consider the diverse ways students communicate on online platforms. These metrics could account for not just the accuracy of linguistics but also the relevance, creativity and overall effectiveness of communication within a multimodal context. Thus, educators and researchers can gain a clearer, more comprehensible understanding of language proficiency and interaction. This initiative could enhance online language education, providing tools that recognise and foster the broad range of skills learners develop in this dynamic environment.

Further, while this study highlighted the increased engagement and language production in multimodal CMC environments, it is essential to address both the quantity and quality of students' language use. Golonka et al. (2014) found that technology-enhanced language learning improves the quantity of student speech, but their underlying proficiency often remains static. Future research should aim to assess not only the quantity but also the quality of language produced by students in multimodal CMC environments. Longitudinal studies and comparative analysis with face to face teaching contexts can provide insights into the long-term impact on language proficiency. Additionally, exploring specific pedagogical interventions within multimodal CMC environments that enhance both the quantity and quality of language production can contribute to more effective language learning practices.

Finally, future research on using pilot studies before implementing a new teaching approach using technology as tool or medium in the context of CMC use holds the potential to enhance teaching and learning outcomes. A focused investigation into the design, implementation and analysis of pilot studies can provide valuable insights into the effectiveness of identifying potential challenges and assessing the feasibility of new technology before full implementation. Such research can contribute to optimising the role of the pilot study as a critical tool in developing and refining educational practices. This study could also examine the effect of pilot study feedback loops on the final designs of educational interventions (e.g., Wilson et al., 2022), the application of pilot studies in diverse educational settings and disciplines to understand their versatility and adaptability, support personalised learning experiences and accommodate diverse learner needs and preferences by systematically exploring these and other related areas.

8.6 Conclusion

This study explored the experiences of a small group of Indonesian students aged between 18 and 21 years old from a rural setting in Indonesia as they engaged with CMC tasks on Instagram chats outside of their classrooms to foster their English-communication skills. The research sheds light on the potential of social-media platforms as effective tools for language learning. Beyond facilitating language practice, Instagram chats also serve as a dynamic platform for socialisation and community engagement. These aspects of Instagram chats are particularly beneficial in language learning, as they mirror real-life communication and opportunities to apply language skills in social interactions beyond the classroom walls, especially for Indonesian students at a private university in Indonesia. Instagram chats, particularly in settings outside the classroom, enable young Indonesian students to practise their language skills in a more relaxed way, given Instagram's popularity with them. Integrating social media into language learning also aligns with university students' digital habits and adds a layer of practicality and relevance to their educational experience.

Contrary to prescriptive textbook-driven teaching methods in conventional Indonesian FTF classroom settings, Instagram chats introduce a dynamic and flexible approach that encourages creativity, personal expression and interactive learning. This platform creates a setting where students are not passive listeners but active contributors who engage in real-time conversations

that reflect everyday communication. This setting allows for a more organic use of language, enabling students to spontaneously experiment with new expressions, phrases and grammatical structures in line with the given context. Such an approach fosters incidental language learning, where communication skills are acquired not through direct instruction but through the natural flow of conversation and unrehearsed use of language through authentic task interaction. This process makes learning feel more akin to immersion in an everyday activity than an educational assignment. Consequently, using Instagram chats for language learning represents a shift towards new trends in contemporary online language learning that align with students' evolving preferences and behaviours to make language acquisition more integrated, engaging and effective. This shift prepares students for real-world communication in an increasingly digital global landscape.

Furthermore, the study described here showed how the MIA of students' use of various semiotic resources features deepened our understanding of student engagement with the verbal and nonverbal semiotic resources within various communication channels. This exploration of multimodal interaction highlighted its vital role in task-based instruction, especially in enhancing language engagement. This study shows that combining spoken or written words with nonverbal elements can contribute to richer and more effective communication. This is largely due to the multiple visual and auditory aids supplementing students' communicative efforts during task interaction. This experience of incorporating nonverbal cues during task interaction underscores the necessity of cultivating awareness among educators and students about the benefit of integrating these nonverbal and verbal cues in language learning and communication and raising awareness of the positive effect of paralinguistics features on fostering both verbal and written communication. Acknowledging the advantages of nonverbal cues is fundamental in developing a more holistic approach to language instruction that embraces the entire range of communicative modes for students who are taught following print-only textbooks.

This study also advances our understanding of interactive alignment in the context of language learning within CMC task interaction (Coumel et al., 2022; Michel et al., 2022). It introduces a fresh approach wherein students employ verbal cues and combine them with nonverbal cues to adapt their communication and align with their counterparts, especially within the milieu of Instagram chats. This adaptability helps them overcome the challenges posed by the absence

of direct FTF communication and makes their meaning more comprehensible. Students strategically employ an array of their language skills, physical actions and the functionalities offered by the technological tools to meet the communication objectives of their tasks. In various communication channels, such as text chat and video calls, they skilfully use a mix of nonverbal and verbal cues to foster conversation. For example, in text chats, resources like emojis, images and GIFs supplement and enhance the textual content, thus compensating for the lack of visual interaction. In video chats, paralinguistic features, including gestures, proxemics and facial expressions, are crucial to conveying meaning and emotions, becoming more critical for remote learning and teaching during the pandemic. These semiotic resources facilitate multimodal communication and reduce the sense of physical distance often associated with online learning. This insight opens up new avenues for future research, suggesting that investigating the specific roles of nonverbal cues in enhancing students' cognitive, behavioural and social engagement within CMC could offer a valuable approach to designing more effective online language-learning tasks.

Furthermore, incorporating MIA into CMC research, particularly within SLA, offers a thorough understanding of online language-learning complexities. This methodological approach helps scrutinise the multifaceted interplay among various forms of communication, such as text, audio and images, which interact and converge in online environments to facilitate language learning and usage (Wigham & Satar, 2021). This framework can also uncover how students construct meaning, express themselves and build relationships virtually. The current study provides empirical evidence of MIA's use as a viable tool within the context of online language learning by demonstrating specific instances of its application, showcasing various forms of communication modes and their combination to foster task interaction. This analysis is also relevant in synchronous online exchanges, such as videoconferencing, where students can employ not just spoken words but also a range of visual cues, including gestures and facial expressions, to convey meaning in a more nuanced and effective manner (Gutiérrez et al., 2021). By recognising the importance of multimodal interaction in online language learning, educators can prompt students to be aware of the vital role played by diverse semiotic resources in digital communication, thereby enhancing the overall quality and effectiveness of language teaching and learning in the modern digital landscape.

Overall, this study demonstrates the utility of Instagram chats in language learning and unveils the vital role of multimodality in bolstering online language learning. Integrating diverse communication cues in Instagram chats becomes crucial in virtual settings to compensate for the lack of physical presence. This multimodality also adds a deeper level of expression and comprehension among students in task interactions. The research shows that engaging in a variety of communication modes boosts social interaction, engagement and language skills by reflecting the multifaceted nature of real-world communication. The focus on multimodality within this study underscores the imperative for language-education programs to adapt to the digital age's communication demands, especially for schools in urban and rural areas that have the ability to access the internet and sufficient technological infrastructure. It encourages educators to thoughtfully incorporate technological affordances into task design whilst considering learners' factors, such as cultural background, daily communication needs and students' digital literacy levels. This current study advocates a shift towards a more inclusive and effective approach to learning and teaching, considering a holistic design that values flexibility, engagement and the authentic use of language in diverse contexts. While it acknowledges that technology can exacerbate educational disparities by creating a divide between those with access and those without, it emphasises the importance of integrating technology as one of many tools to enhance engagement with language learning rather than viewing it as the sole solution. In conclusion, this study recommends that educators or educational stakeholders tailor their language-learning methodologies to accommodate students' diverse needs by integrating both in-person FTF and innovative online digital approaches to foster a more engaging and accessible language-learning environment.

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Appendix A: Information Statement

Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

PARTICIPANT INFORMATION STATEMENT

HREC Project Number:	HRE2020-0500
Project Title:	Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia
Chief Investigator:	Associate Professor Julian Chen
Student researcher:	Muntaha
Version Number:	7
Version Date:	20 July 2021

What is the Project About?

Technological advancement has enabled multimodal features of computer-mediated communication (CMC) such as text, voice, and video chat to be used in many contexts. CMC has created a potential language education environment for students wishing to foster more effective communication in English. This study will investigate: 1) the nature of the English discourse produced during exchanges using CMC; 2) the effectiveness of different task types and modes in CMC for fostering English language use; and 3) students' experiences of learning English through the medium of Instagram chats.

Who is doing the Research?

The project is being conducted by Associate Professor Julian Chen as the chief investigator/ supervisor, Professor Toni Dobinson as co-supervisor, and Muntaha as a student researcher. The results of this research project will be used by Muntaha to obtain a Doctor of Philosophy at Curtin University. The project is funded by Curtin University.

Why am I being asked to take part and what will I have to do?

You have been asked to take part because you are involved in learning through the medium of English and you are a first-year student at the business school at this university. As part of your participation, we would like you to complete eight online tasks in English that will be done once a week over three months through Instagram on your mobile phone outside the classroom. Each online task will take about 30 minutes and you will work with your friends in pairs and groups to complete the tasks. We will give you a voucher up to A$25 to cover your internet data bill for doing the tasks. You will be observed and audio-recorded while interacting together

doing the online tasks, then your interaction (e.g. text chat logs, audio chat and video chat recording) during tasks completion will be transcribed and analysed for research purposes. You will also take part in an online interview with the researcher for about 30 minutes and it will be audio recorded, then transcribed. You will write four online reflective journals in google docs. Each reflection will take about 15 minutes to complete. Only you and the researchers will have access to these docs. You will complete two online surveys pre- and post-study through google forms. The pre-study survey will take place at the beginning of the study, while the post-study survey will be done at the end of the study. They will take about 20 minutes each. Your responses to the survey or interview will not affect the relationship you have with your teacher or your academic results.

Are there any benefits' to being in the research project?

We hope the results of this research will allow us to develop an education program that will 1) assist language teachers to identify and/or design appropriate and effective tasks for L2 online teaching in Indonesia; 2) build upon students shared experiences of learning English through multimodal computer-mediated communication tasks outside the classroom; 3) motivate students to be autonomous language learners.

Are there any risks, side-effects, discomforts or inconveniences from being in the research project?

There are no foreseeable risks from this research project. We have been careful to make sure that the tasks, and questions in the survey and interview do not cause you any distress.

Who will have access to my information?

The information collected in this research will be de-identified. This means that any names will be changed to pseudonyms so you will not be identifiable. Only the research team will be able to identify you and your information. Electronic data will be password-protected, and hard copy data (including video or audio tapes) will be in locked storage. The information we collect in this study will be kept under secure conditions at Curtin University OneDrive for seven years after the research is published, and then it will be destroyed/kept indefinitely (select one). The findings of this research may be presented at conferences or published in professional journals. You will not be identified in any findings that are published or presented.

Will you tell me the findings of the research?

If you are interested in obtaining a summary of the findings, please contact the researchers after February 2022. Findings will not be individual as all information will be de-identified and based on all the information collected and reviewed as part of the research.

Do I have to take part in the research project?

Taking part in this research project is voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay; you can withdraw from the project anytime.

What happens next and who can I contact about the research?

By signing the consent form, you are telling us that you understand what you have read and what has been discussed. Signing the consent indicates that you agree to be in the research project. Please take your time and ask any questions you have before you decide what to do. You will be given a copy of this information and the consent form to keep.

If you have any questions or require further information regarding the research project, please do not hesitate to contact us:

A/Prof. Julian Chen : Julian.Chen@curtin.edu.au

Prof. Toni Dobinson : T.Dobinson@curtin.edu.au

Muntaha : Muntaha.AbdulQodir@student.curtin.edu.au

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number HRE2020-0500). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au.

Appendix B: Consent Form

English version

Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

CONSENT FORM

HREC Project Number:	HRE2020-0500
Project Title:	Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia
Chief Investigator:	Associate Professor Julian Chen
Student researcher:	Muntaha
Version Number:	7
Version Date:	10 October 2021

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent, and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I agree to be photographed or video and audio recorded in this project.
- I give permission for images or video (including face) in which I appear in this project to be published in journal article, thesis, and other publications for academic purposes.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

Participant Name	
Participant Signature	
Date	

Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project. (required for clinical trials; remove if not relevant e.g., online questionnaires)

Researcher Name	
Researcher Signature	
Date	

Bahasa Indonesia version

Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

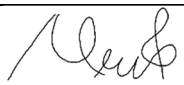
LEMBAR PERSETUJUAN

Nomor proyek HREC:	HRE2020-0500
Judul Penelitian:	Eksplorasi penggunaan bahasa Inggris siswa dalam komunikasi dengan media multimodal komputer: Studi kasus pada sebuah universitas di Indonesia
Ketua Peneliti:	Associate Prof. Julian Chen
Peneliti Mahasiswa:	Muntaha
Nomor Versi:	7
Tanggal Versi:	10 Oktober 2021

- Saya telah membaca lembar informasi yang tercantum di atas, dan saya mengerti isinya.
- Saya yakin saya memahami tujuan, jangkauan, dan kemungkinan risiko keterlibatan saya dalam penelitian ini.
- Saya secara sukarela menyetujui untuk ambil bagian dalam proyek penelitian ini.
- Saya setuju untuk direkam dalam video maupun audio.
- Saya setuju photo atau video saya (termasuk wajah) yang diambil Ketika penelitian ini untuk dipublikasikan dalam jurnal ilmiah, thesis, atau keperluan akademik lainnya.
- Saya memiliki kesempatan untuk mengajukan pertanyaan, dan saya puas dengan jawaban yang saya terima.
- Saya mengerti bahwa proyek ini telah disetujui oleh Komite Etika Penelitian Manusia Universitas Curtin dan akan dilaksanakan sesuai dengan Pernyataan Nasional tentang Perilaku Etis dalam Penelitian Manusia (2007).
- Saya memahami bahwa saya akan menerima salinan Pernyataan Informasi dan Formulir Persetujuan ini.

Nama Partisipan	[redacted]
Tanda tangan Partisipan	
Tanggal	12/10/2021

Pernyataan oleh peneliti: Saya telah memberikan Surat Informasi dan Formulir Persetujuan kepada peserta yang telah menandatangani di atas, dan yakin bahwa mereka memahami tujuan, cakupan, dan kemungkinan risiko keterlibatan mereka dalam proyek ini.

Nama Peneliti	Muntaha
Tanda tangan Peneliti	
Tanggal	10/10/2021

Appendix C: Research Instruments

Note: The use of this survey has been approved by Curtin University Human Research Committee (HRE2020-0500)

Needs Analysis Survey

Project title: Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

☐ I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent, and possible risks of my involvement in this project, and I voluntarily consent to take part.

A. Prior experiences of using social networking tools

Never	Seldom	Sometimes	Usually	Always
1	2	3	4	5

No	Items					
1.	I use social networking tools (e.g. Facebook Messenger, WhatsApp, WeChat, Line) to connect to friends, family and others.	1	2	3	4	5
2.	I use social networking tools for personal entertainment, such as playing online games.	1	2	3	4	5
3.	I use social networking tools for browsing and sharing new or interesting information.	1	2	3	4	5
4.	I use social networking tools for discussing and sharing information about school subjects with classmate.	1	2	3	4	5
5.	How often do you use nonverbal (e.g., emojis, GIFs, images, gestures) in your online communication?	1	2	3	4	5

B. Social networking tools preferences (you may choose more than one)

6. Which social networking tools do you prefer to use for your daily communication?

	WhatsApp
	Instagram
	Telegram
	Twitter
	Line

	Facebook Messenger
	YouTube
	WeChat
	Snapchat

7. How long have you been using Instagram (in years)?

8. Which social networking tools do you prefer to use for learning English? Please explain why.

_____

_____

_____

9. Which mode(s) (text, voice, or video chat) of social networking tools do you prefer to use for learning English? Please explain why.

_____

_____

_____

C. Prior experiences of learning English using tasks via social media

Never	Seldom	Sometimes	Usually	Always
1	2	3	4	5

No	Items					
10.	I use social media for learning English.	1	2	3	4	5
11.	I use social media for improving my speaking skill.	1	2	3	4	5
12.	I use social media for improving my writing skill.	1	2	3	4	5
13.	I practise English speaking by doing real-life tasks (e.g. role-play in booking a hotel, deciding on a vacation destination) through social media.	1	2	3	4	5
14.	I practise English writing by doing real-life tasks (e.g. writing a letter, writing daily diary) through social media.	1	2	3	4	5
15.	I use English to carry out real-life tasks through social media (e.g. buying products in Facebook's Marketplace).	1	2	3	4	5

D. Tasks topics for learning English (you may choose more than one).

16. Which of the following topics do you find relevant for learning English?

	Movies
	Family and friends
	Stories
	Travel
	Food
	Leisure

	Shopping
	People
	Sport
	Health and well being
	Jobs
	Games

17. Based on the topics you choose above, please identify the tasks that are useful and interesting for English communication (e.g. booking hotel accommodation, planning a travel itinerary, making an appointment, etc.)?

_____

_____

_____

18. Please suggest other tasks that you like to do in this project.

_____

_____

_____

E. Demographic information

19. Your name

_____

20. Your gender?

	Male		Female		Non-binary

21. How old are you?

_____

22. How long have you been studying English (in years)?

_____

23. What languages do you speak mostly in daily communication, including online and in-person?

	Bahasa Indonesia
	English
	Javanese
	Padang
	Madurese
	Other languages: _____

Thank you for your time and kind participation in this survey

Note: The use of this survey has been approved by Curtin University Human Research Committee (HRE2020-0500)

Pre-study Survey

Project title: Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

☐ I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent, and possible risks of my involvement in this project, and I voluntarily consent to take part.

A. Overall perceptions BEFORE the study

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

	Experiences and process						
1	I have ever learned English through tasks (e.g., deciding on a holiday destination with a partner, booking a hotel room).	1	2	3	4	5
2	I feel that working in a pair will help me better communicate in English during Instagram tasks rather than in a group.	1	2	3	4	5
3	If I encounter difficulties in doing Instagram tasks, I will still try my best to complete those tasks.	1	2	3	4	5
4	I find it is more flexible doing English learning tasks on Instagram than in a class.	1	2	3	4	5
5	I find it is more flexible to communicate in English using a combination of verbal (written, spoken) and nonverbal (e.g., emojis, GIFs, gesture, gaze) than using verbal mode only.	1	2	3	4	5
	Engagement and beliefs						
1	I believe Instagram tasks will motivate me to use English more in communication with peers.	1	2	3	4	5
2	I believe the use of nonverbal features (e.g., emojis, GIFs, gestures, gaze) will encourage me to communicate better in English when I didn't know about the words.	1	2	3	4	5
3	I believe doing tasks through Instagram will make me feel more anxious than doing tasks in class.	1	2	3	4	5
4	I believe I will enjoy completing Instagram tasks with my peers.	1	2	3	4	5
5	I believe I will enjoy using Instagram channels (e.g., text, voice, video chat) to communicate in English.	1	2	3	4	5
6	I believe I will enjoy using nonverbal features (e.g., emojis, GIFs, gestures, gaze) to communicate in English.	1	2	3	4	5
7	I believe I will feel more comfortable communicating in English using a combination of verbal and nonverbal features than only using one feature.	1	2	3	4	5
8	I believe it is important to use various channels (e.g., text, voice, video) to communicate in English.	1	2	3	4	5
9	I believe multimodal text features of Instagram (e.g., emojis, GIFs, images) are valuable for English communication.	1	2	3	4	5

10	I believe the use of gestures and gaze through Instagram video chat are valuable for English communication.	1	2	3	4	5
	Outcome					
1	I think doing Instagram tasks will enhance my English communication skills.	1	2	3	4	5
2	I think doing Instagram tasks will encourage me to communicate more in English.	1	2	3	4	5
3	I think doing Instagram tasks will improve my knowledge about the functions of various features in my smartphone for better communication.	1	2	3	4	5
4	I think doing Instagram tasks will make me pay more attention to the use of different modes of communication such as verbal (written, spoken) and nonverbal (emojis, GIFs, gestures, gaze) in improving my English learning.	1	2	3	4	5
5	I think doing Instagram tasks will make me better understand the potential of social media for English learning.	1	2	3	4	5
6	Overall, I think doing Instagram tasks in this project will be a positive experience for me.	1	2	3	4	5

B. Background information

1. Your gender? (Please tick) : □ Female □ Male
2. How long have you been using Instagram (in years)? _____
3. How often do you use English in your online communication?

   □ Always □ Often □ Sometimes □ Never
4. How often do you use nonverbal (e.g., emojis, GIFs, images, gestures) in your online communication?

   □ Always □ Often □ Sometimes □ Never

Thank you for your time and kind participation in this survey

Note: The use of this survey has been approved by Curtin University Human Research Committee (HRE2020-0500)

Post-study Survey

Project title: Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

☐ I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent, and possible risks of my involvement in this project, and I voluntarily consent to take part.

A. Overall experiences AFTER the study

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

	Experiences and process						
1	I participated actively in English learning tasks (e.g., deciding on a holiday destination with a partner) through Instagram.	1	2	3	4	5
2	I felt working in pairs helped me better communicate in English during Instagram tasks than in a group.	1	2	3	4	5
3	If I encountered difficulties, I still tried my best to complete those tasks.	1	2	3	4	5
4	I found it was more flexible doing English learning tasks on Instagram than in a class.	1	2	3	4	5
5	I found it was more flexible to communicate in English using various modes (verbal and nonverbal) than using only verbal mode.	1	2	3	4	5
	Engagement and beliefs						
1	I felt Instagram tasks motivated me to use English more in communication with peers.	1	2	3	4	5
2	I felt using nonverbal features encouraged me to communicate better in English when I didn't know about the words.	1	2	3	4	5
3	I felt doing tasks through Instagram made me feel more anxious than doing tasks in class.	1	2	3	4	5
4	I enjoyed completing Instagram tasks with my peers.	1	2	3	4	5
5	I enjoyed using Instagram channels (e.g., text, voice, video chat) to communicate in English.	1	2	3	4	5
6	I enjoyed using nonverbal features (e.g., emojis, GIFs, Images, gestures, gaze) to communicate in English.	1	2	3	4	5
7	I felt more comfortable communicating in English using a combination of verbal and nonverbal features than only using one feature.	1	2	3	4	5
8	It was important to use various channels (e.g., text, voice, video) to communicate in English.	1	2	3	4	5

9	Multimodal text features of Instagram (e.g., emojis, GIFs, images) were valuable for English communication.	1	2	3	4	5
10	Using gestures and gaze through Instagram video chat was valuable for English communication.	1	2	3	4	5
	Outcome					
1	Doing Instagram tasks enhanced my English communication skills.	1	2	3	4	5
2	Doing Instagram tasks encouraged me to communicate more in English.	1	2	3	4	5
3	Doing Instagram tasks improved my knowledge about the functions of various features in my smartphone for better communication.	1	2	3	4	5
4	Doing Instagram tasks made me pay more attention to using various modes (verbal and nonverbal) in my English learning process.	1	2	3	4	5
5	Doing Instagram tasks made me pay more attention to the potential of social media for English learning process.	1	2	3	4	5
6	Overall, I had a strong positive experience from this project.	1	2	3	4	5

7. Which Instagram channel do you think help you improve English communication? Select all that apply.

☐ Text chat ☐ Audio chat ☐ Video chat

8. Which task do you think help you improve your English communication skills? Select all that apply.

☐ Information gap ☐ Reasoning gap ☐ Opinion gap

9. Which nonverbal features do you think help you communicate better in English? Select all that apply.

☐ Emojis ☐ GIFs ☐ Images/pictures

☐ Gestures in video chat ☐ Gaze and facial expression in video chat

☐ Others_____

B. Background information

1. Your gender? (Please tick) : □ Female □ Male
2. How long have you been using Instagram (in years)? _____
3. How often do you use English in your online communication, besides in this project?
   □ Always □ Often □ Sometimes □ Never
4. How often do you use nonverbal (e.g., emojis, GIFs, images, gestures) in your online communication, besides in this project?
   □ Always □ Often □ Sometimes □ Never

Thank you for your time and kind participation in this survey

Main study Interview protocol

Date : _____

Time : _____

Interviewee : _____

This project focuses on students' English language use in communication through computer-mediated communication tasks, and the objective of this interview is to obtain information about the different aspects of it.

This interview will be conducted online, and audio recorded. The data obtained during this interview will be used only for research purposes. The interview will last for about 30 minutes and be conducted in Bahasa Indonesia. You will be asked questions about your background information, experiences of using Instagram for completing the tasks, the impacts of different features/modes in Instagram for learning English, and the influences of different types of tasks for learning English through Instagram.

☐ I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent, and possible risks of my involvement in this project, and I voluntarily consent to take part.

Semi-structured interview questions

Project title: Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

1. Please tell me a bit about your background. (e.g., where are you from? Your age? what department are you in?)
2. How would you describe your experiences of completing those Instagram tasks?
3. How do you compare completing the Instagram tasks in pairs with working in groups?
4. How do you compare this Instagram tasks experience with practising English in class?
5. How do you like the idea of practising English communication outside the class, such as in this project?
6. What kind of challenges did you face while doing the Instagram tasks? How did you overcome those challenges?
7. How did you feel about using Instagram channels (e.g., text, audio, video) to help you communicate in English?
8. How did you feel about using Instagram nonverbal features (e.g., emojis, GIFs, images, gestures, gaze, facial expression) to help you communicate in English?
9. Please tell me a little about any Instagram task that you liked and disliked.
10. Please tell me about any Instagram channels that you liked and disliked.
11. Please tell me about any Instagram nonverbal features that you liked and disliked.
12. Do you have any suggestions about how we can improve the tasks or the project for the future students?
13. Do you have any final thoughts about this whole experience?

Reflective Journal Prompts

Project title: Exploring students' English language use in multimodal computer-mediated communication tasks: A case study of a university in Indonesia

Journal prompts are aimed to help the students on reflecting their experiences during the Instagram task completion. The students will write their reflections on google docs.

Week 1

1. How did you feel about doing the task of *'deciding tourism destination'* through Instagram?
2. To what extent did you find the task of *'deciding tourism destination'* help you improve your English communication skills?
3. How did nonverbal features in text chat (e.g., emojis, GIFs, images) help you communicate better in English while doing the task?

Week 2

1. How did you feel about doing the task of *'selecting 12 kgs survival kits'* through Instagram?
2. How did text chat channel help you communicate in English while doing the task?
3. What challenges did you find while doing the Instagram task through text chat channel?

Week 3

1. How did you feel about doing the task of *'defining the meaning of best friend'* through Instagram?
2. To what extent did you find the task of *'defining the meaning of best friend'* help you improve your English communication skills?
3. How did nonverbal features in voice chat (e.g., intonation, word stress) help you communicate in English while doing the task?

Week 4

1. How did you feel about doing the task of *'discussing two real-life situations'* through Instagram?
2. How did voice chat channel help you communicate in English while doing the task?
3. What challenges did you find while doing the Instagram task through audio chat channel?

Week 5

1. How did you feel about doing the task of *'rearranging jumbled movie clips'* through Instagram?
2. To what extent did you find the task of *'rearranging jumbled movie clips'* help you improve your English communication skills?
3. How did nonverbal features in video chat (e.g., gesture, gaze, facial expression) help you communicate in English while doing the task?

Week 6

1. How did you feel about doing the task of *'arranging jumbled pictures become a complete story'* through Instagram?
2. How did video chat channel help you communicate in English while doing the task?
3. What challenges did you find while doing the Instagram task through video chat channel?

Appendix D: Communicative Tasks Procedures

I. Pre tasks session

1) Reasoning gap task

Reasoning-gap task
(simple)

Channel: Text chat
Topic: Travelling
Aims: To learn how to provide reasons and arguments properly.
To learn how to agree/disagree.

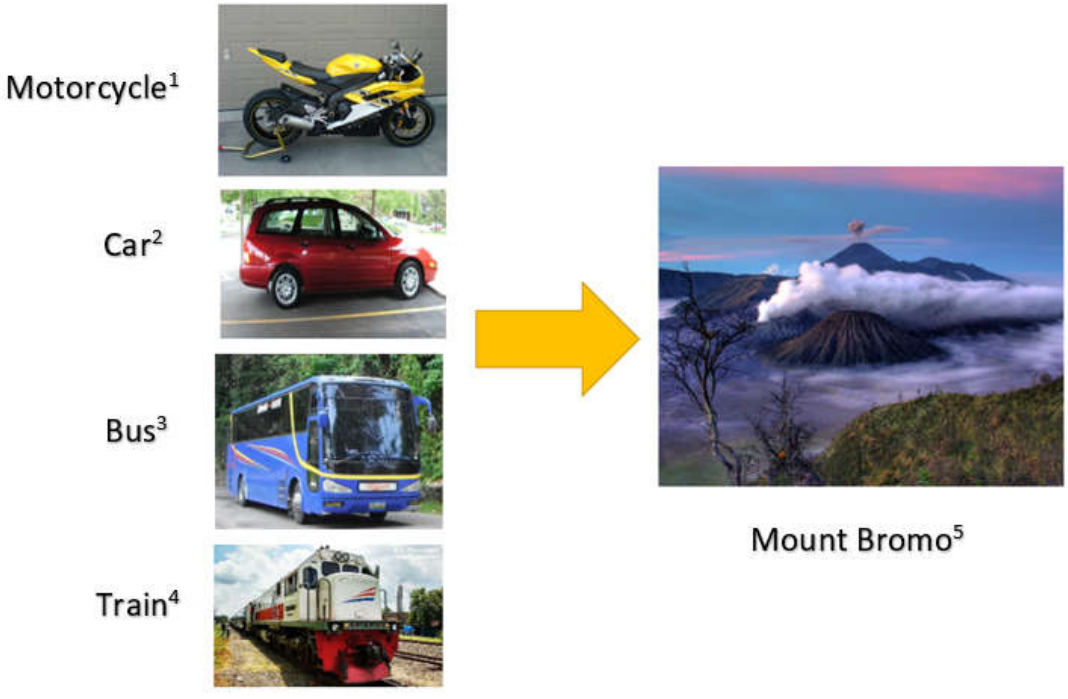
Directions

Channel: Text chat

You and your friends (three people) are studying at the same university. All of you have decided to spend your semester break holiday travelling to Bromo Mountain after COVID 19 restriction ends. However, you have not decided which mode of transportation to take, and there are some options available such as motorcycle, car, bus, and train. Your tasks are:

- You are going to work in a group of three people to discuss which one is the best mode of transportation to go to Bromo Mountain and give reasons for their advantages and disadvantages to your friends.
- Your group should decide on the best transportation in the end.
- You have **2 minutes** to prepare before starting the discussion.
- You have **20-30 minutes to discuss,** and, in the end, your group should decide which mode of transportation will be used.

Transportation options



Source of Images:
[1]https://www.flickr.com/photos/kneedragon/375550122
2https://www.flickr.com/photos/jzb/509599229
3https://www.flickr.com/photos/martindemo/8935547387
4https://www.flickr.com/photos/althofanwarijalal/42259451395
5https://www.flickr.com/photos/63328822@N00/2564067897

2) Opinion gap task

Opinion-gap task
(simple)

Channel: Voice chat
Topic: Family and friends
Aims: To learn how to tell an opinion.
To learn how to provide feelings, ideas, and preferences properly.
Directions
Channel: Voice chat
Today most people make friends online through social media such as Instagram-**follower**-, Facebook-**friends**-, X-**mutuals**-, YouTube-**subscriber**-, etc. In your opinion "What is the definition of online friendship and how do you value online friendship (advantages vs disadvantages)?

- You are going to work in a group of three people.
- Compare your "definition of online friendship" and then your views about "advantages vs disadvantages of online friendship".
- You have **2 minutes** to prepare before the discussion.
- You have **20-30 minutes to discuss**, and you may agree or disagree with your friends.

Online friendship illustration

Source of Image:
https://www.freepik.com/free-vector/refer-friend-concept-illustrated_5516434

3) Information gap task

Information gap
(Simple)

Channel: Video chat
Topic: Story and movie
Aims: To develop learners' ability to describe the characters from popular stories.
To develop learners' ability to explain the characters from the story.

Directions

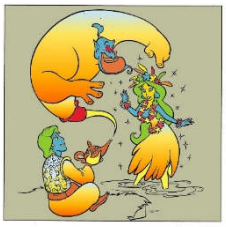
Channel: Video chat

You are going to work in a pair to guess the names of characters from famous stories and comics. Each of you will get six pictures of those characters. You will describe your pictures to your partner, but you must not show the pictures to him/her.

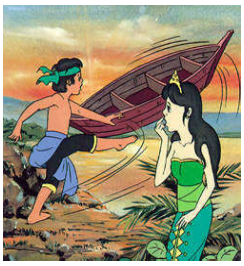
- You have **2 minutes** to study the pictures assigned to you before starting to describe those pictures to your partner. Ask your partner to guess the name of each character.
- When you are describing the pictures, your partner may ask questions about your description. Try to answer the question without revealing the name.
- After you have finished your turn, then your partner will start his/her turn to do the same.
- You have **20-30 minutes** to guess all the names of the characters

The characters

Student A

 1. Aladdin	 2. Rome and Juliet	 3. Thor
 4. Cinderella	 5. Spiderman	 6. Captain America

Student B

 1. Doraemon	 2. Ironman	 3. Batman
 4. Sangkuriang	 5. Harry Potter	 6. Pinocchio

Source of images
Student A
1https://www.publicdomainpictures.net/en/view-image.php?image=153926&picture=genie-aladdin
2https://pixabay.com/vectors/romeo-juliet-play-theater-2498582/
3https://pixabay.com/photos/super-hero-thor-super-hero-power-1138512/
4https://www.freepik.com/free-vector/fairytale-cinderella-watercolor-style_7080679
5https://pixabay.com/photos/hero-spiderman-super-spider-power-1132288/
6https://pixabay.com/photos/captain-america-marvel-comic-4428842/

Student B
1https://pixabay.com/photos/toy-doraemon-robot-cat-future-3890797/
2https://pixabay.com/photos/iron-man-fight-sand-avengers-6288206/
3https://pixabay.com/photos/batman-lego-toys-kids-child-play-1070422/
4https://indonesianfolktales.fandom.com/wiki/The_Legend_of_Sangkuriang
5https://pixabay.com/vectors/harry-potter-fan-art-the-wizard-owl-4073863/
6https://pixabay.com/photos/pinocchio-puppet-tale-italy-595453/

II. Main tasks session

4) Reasoning-gap task

Reasoning-gap task
(Simple)

Channel: Text chat
Topic: Travelling
Aims: To learn how to provide reasons and arguments properly.
To learn how to agree/disagree.

Directions

Channel: Text chat

You and your partner are a student studying at the same university. You two will spend four days travelling during the New Year 2022 after COVID 19 restriction ends. Where do you want to go?

- Offer three ideas of tourism destinations (city or specific places) to your partner and give reasons for them.
- Remember, you will spend 4 days there, so find the good place which offers many amazing tourism spots/objects.
- However, both of you should decide only one destination (city or specific places) for travelling in the end.
- You have **2 minutes** to prepare before starting the discussion.
- You have **20-30 minutes** to discuss and decide one destination for your travelling.
- And let's start!

5) Reasoning-gap task

Reasoning-gap task
(More complex)

Channel: Text chat
Topic: Travelling
Aims: To learn how to provide reasons and arguments properly.
To learn how to agree/disagree.

Directions

Channel: Text chat

You are **a team of three students (A, B & C)** travelling to meet a native tribe of Dayak in the middle of the forest in central Borneo Island. During your travel, horrible weather caused a big flood and destroyed your camp and other personal items such as telecommunication devices. Luckily, all of you have survived. Your current location is about a **four-day** walking distance to the nearest village. However, all of you are not so well and your team can only

bring a **survival kit that weighs 12 kilograms**. Your team must carefully select the survival items to continue the journey.

- You have **1 minute** to study the list of survival items below.
- Discuss in a group to select which survival items are needed for the journey and the reasons why.
- List the chosen survival items and remember your team can only bring **a maximum of 12 kgs**.
- At the end of the discussion, your team should reach an agreement on those items in the survival kit.
- You have 20-30 minutes to discuss.

The survival kits:

2L bottles of water (2 kg)
20m of strong rope (1/2 kg)
Small saw (1/4 kg)
Axe (1/4 kg)
10 fresh Bananas (1/2 kg)
Roll of strong tape (1/4 kg)
2kg of white rice (2 kg)
1kg of roasted peanuts (1 kg)
A notebook and pens (1/4 kg)
A box of matches + cigarette (1/4 kg)
Gas cooker/stove (1 kg)
2x large tents (2 kg)
2L bottles of orange juice (1 kg)
10 dried sausages (1/4 kg)
10 boiled eggs (1/2 kg)
A roll of rubbish bags (1/4 kg)
Lotion/Sun cream (1/4 kg)
A small mirror (1/4 kg)
5 plastic cups and plates (1/2 kg).

2x big knives (1/4 kg)
A large box of bandages (1/4 kg)
3 torches with batteries (1/4 kg)
1 box of instant noodles (2 kg)
A large bag of dried fish (1/4 kg)
2x cooking pots (1/4 kg)
Small bottle of bleach (1/4 kg)
Digging tools (1/2 kg)
4x packets of biscuits (1/2 kg)
3x rolls of toilet paper (1/4 kg)
2x large blankets (1 kg)
1 extra-large plastic mat (1 kg)
2L bottles of mineral water (1 kg)
500g mixed dried fruit (1/2 kg)
2x bottles of milk (1 kg)
Extra set of clothes for each team member (1 kg)
Pain killers + medicines (1/4 kg)
5 stainless-steel spoons + forks (1/4 kg)
5 boxes of instant coffees drink (1/4 kg)

The result of group discussion

List of the chosen survival items for the journey

1. ……..
2. …….

Etc.

Resource:

Adapted from the survival kits by kiwibrewer https://en.islcollective.com/english-esl-worksheets/grammar/questions-interrogative/survival-kit/49576

6) Opinion-gap task

Opinion-gap task
(simple)

Channel: Voice chat
Topic: Family and friends
Aims: To learn how to tell an opinion, and express agreement or disagreement.
To learn how to provide reasons and arguments properly.

Directions

Channel: Voice chat

You and your partner know that everyone wants to have a best friend. In your opinion "what is the meaning of a best friend" and "how can you build a strong friendship"? You are going to work in a pair to discuss those questions.

- You have **2 minutes** to prepare before discussing your opinion with your partner.
- Compare your opinion about **"the meaning of best friend"** (e.g., his/her characteristics, his/her attitude, etc.) and **"the ways to build strong friendship"** (e.g., hanging out together, travelling together, etc.)
- You have **20-30 minutes to discuss**, and you may agree or disagree with your partner.

Best friend illustration

Best Friend Forever

Source of image

https://www.flickr.com/photos/ngmmemuda/4335753179

7) Opinion-gap task

Opinion-gap task
(More complex)

Channel: Voice chat
Topic: Family and friends
Aims: To learn how to tell an opinion, and express agreement or disagreement.
To learn how to provide reasons and arguments properly.

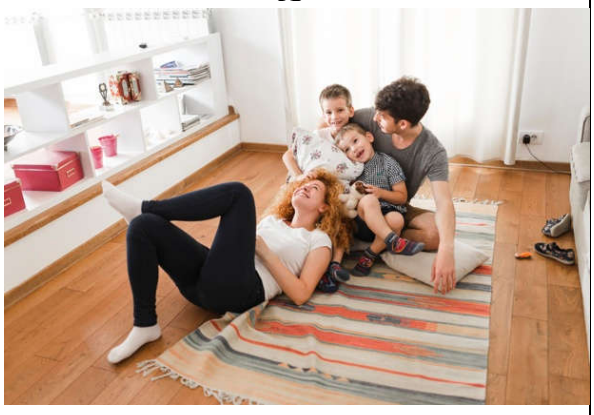
Directions

Channel: Voice chat

There are two pictures of a real-life situation. Those pictures show some case scenarios which might happen around you. You will work **in a group of three students** to discuss the situation.

- You have **2 minutes** to study **the pictures A & B** below and you may take notes before sharing your opinions in the group.
- Compare your opinions with your group members. For example,
    1. What do you think is happening?
    2. Why do you think it could happen?
    3. How do these two pictures make you feel?
    4. What would you do if you were the mother, father, son, or daughter in the pictures?
- You have **20-30 minutes to discuss**, and you may agree or disagree with your friends.

Two pictures of family condition

A	**B**
	

Resources:

Lambert, C., A. Hailes, and S. Engler. 2003. “Using Authentic Listening Materials with First-Year English Majors.” Kitakyushu University Faculty of Foreign Studies Bulletin

Source of images

[a]https://www.freepik.com/free-photos-vectors/happy-family-home

[b]http://juanezaarnoldjuvince.blogspot.com/2013/07/blogpost-1-prologue-broken-family_2.html

8) Information-gap task

Information gap
(simple)

Channel: Video chat
Topic: Story
Aims: To develop learners' ability to tell and explain chronological events.
To develop learners' ability to analyse the sequence of the story and draw a conclusion from a story.

Directions

Channel: Video chat

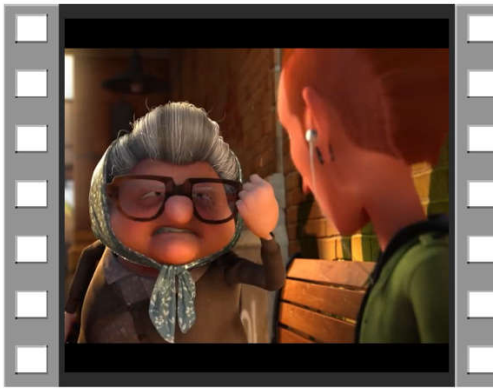
You are going to work in a pair to rearrange four movie clips into one complete movie, each person will get only two random movie clips taken from that movie. You should describe your movie clips to your partner, but you must not show them.

- You have **4 minutes** to watch a video clip assigned to you before telling the other student what you saw in the movie.
- After you and your partner have finished describing the movie clips, discuss what the story is about together.
- Identify the sequence of the movie clips in the correct order to make up a complete story by filling the worksheet below.
- You have **20-30 minutes to discuss** and rearrange the clips into a complete story.

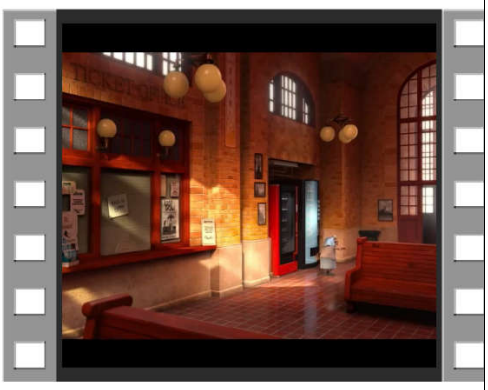
The movie clips:

Student A

Movie clip A



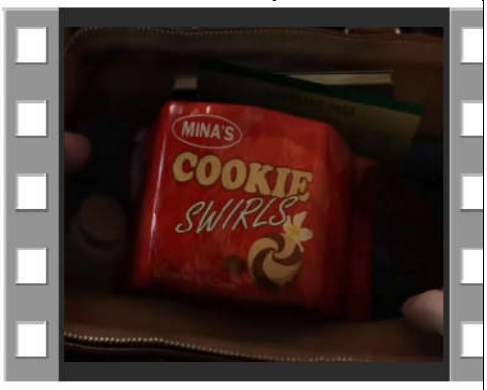
Movie clip B



Student B

Movie clip C

Movie clip D



The student's worksheet

The correct order of the movie clips			
First Movie clip: … Clues: _____ _____ _____	Second Movie clip: … Clues: _____ _____ _____	Third Movie clip: … Clues: _____ _____ _____	Fourth Movie clip: … Clues: _____ _____ _____

Resource:

https://www.youtube.com/watch?v=38y_1EWIE9I

9) Information-gap task

Information-gap task
(More complex)

Channel: Video chat
Topic: Story
Aims: To develop learners' ability to describe and explain chronological events.
To develop learners' ability to analyse the sequence of the story and draw a conclusion from a story.

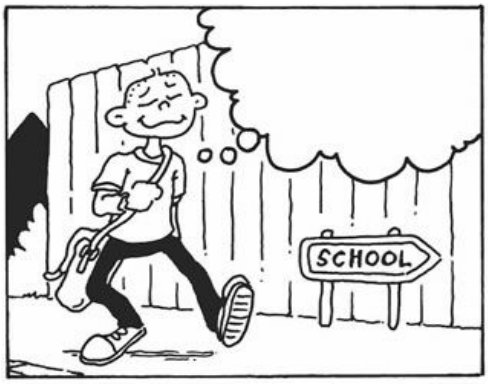
Directions

Channel: Video chat

You are going to work in a group of three **(students A, B, & C)** to construct a story from six pictures taken from two different stories. Each person will get only two pictures. You should describe your pictures to your friends in the group, but you must not show them the pictures you receive.

- You have **2 minutes** to study the pictures assigned to you (you may take notes) before describing to the other students what you saw in the pictures.
- After everyone finishes describing his/her pictures, identify and discuss what the story is about together.
- Identify the sequence of the pictures in the correct order to make up a complete story by filling the worksheet below.
- You have **30-40 minutes to discuss** and rearrange each picture to create a complete story.

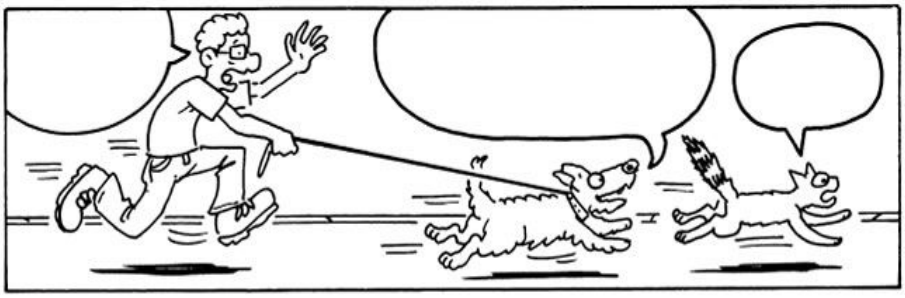
The images of the story

Student A	
A	B
	

Student B

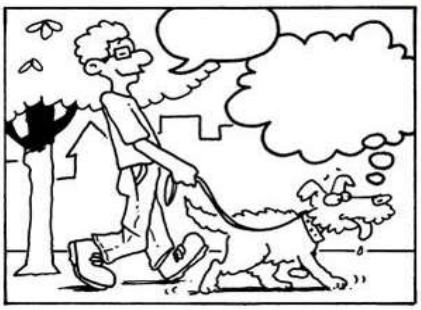
C

D

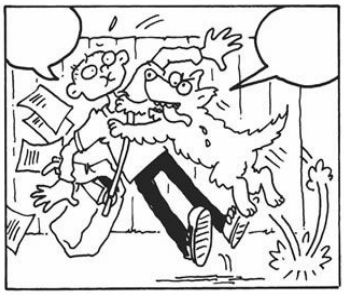


Student C

E



F



The student's worksheet

The correct order of the pictures					
First Picture: … Clues: _____ _____ _____	Second Picture: … Clues: _____ _____ _____	Third Picture: … Clues: _____ _____ _____	Fourth Picture: … Clues: _____ _____ _____	Fifth Picture: … Clues: _____ _____ _____	Sixth Picture: … Clues: _____ _____ _____

Source of images

[a,b,c,f]https://www.pinterest.co.uk/pin/98797785555299202/

[d,e]https://www.pinterest.co.uk/pin/3307399716690078