Interaction and task design in a collaborative learning environment: A case study of web conferencing in an Introductory Chinese course

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Abstract

This study aims to explore best practice in applying a task-based language teaching approach via a web conferencing tool, Blackboard Collaborate. From both interactionist and sociocultural perspectives on second language acquisition, learner-learner interactions provide opportunities for negotiation of meaning, which may facilitate their second language learning. Few studies have investigated the effect of task design in web conferencing-based environments on learners' interaction and collaborative language learning. The purpose of the current research was threefold: (1) to explore how the teacher and learners used multiple modes (video, audio, text chat, voting, raised-hand function, emoticons, and whiteboard) to make meaning in a web conferencing environment; (2) to examine whether learners engaged in negotiation of meaning in the completion of tasks in the web conferencing environment; and, (3) to evaluate the pedagogical values and limitations of the software in a beginner's online Chinese course and the tasks that were designed accordingly.

There were two research stages in this study. In the first research cycle, eight elementary level students of Chinese conducted two online sessions—one jigsaw task and one information-gap task—delivered by a web conferencing platform (Blackboard Collaborate). A mixed methods approach was adopted in that (a) the teacher's and learners' multimodal interactions were recorded and analysed quantitatively in order to illustrate participation patterns, and (b) Varonis and Gass's (1985) model was used to identify instances of negotiation of meaning in learner-learner interactions through an interpretive analysis of the data.

In the second research stage, Chapelle's (2001) six evaluation criteria for computer-assisted language learning task appropriateness and Wang's (2007) criteria for evaluating meaning-

focused videoconferencing tasks were adopted and adapted to evaluate five tasks designed for an online environment in terms of practicality, language learning potential, learner fit, authenticity, and positive effects. Sixteen on-campus undergraduates who had enrolled for an introductory Chinese language course participated in the second study cycle. Five 1-hour online sessions were conducted fortnightly, including two jigsaw tasks, two decision-making tasks, and one information-gap task. Participants' interactions in the online sessions were recorded and transcribed in order to thoroughly investigate learners' negotiation actions in peer-to-peer interactions. Their experiences of using Blackboard Collaborate and activities for completing the tasks were recorded using in-depth interviews and pre- and post-session questionnaires.

The designed collaborative tasks showed great pedagogical value in facilitating learners' SLA in an online environment. The findings, which were context specific, confirmed that the technical capacity of the web-conferencing tool, Blackboard Collaborate, was reliable and sufficient for supporting teacher-learners' multimodal interactions and learner-learner collaborative learning in the online environment.

Declaration

I certify that the research described in this dissertation has not already been submitted for any other degree. I certify that to the best of my knowledge all sources used and any help received in the preparation of this dissertation has been acknowledged. Ethics approval has been obtained for this research project by Macquarie University, Australia.

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Publications

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1 Chapter 1 Introduction

The last three decades have seen an enormous growth of applying task-based language teaching (TBLT) approaches in face-to-face (Ellis, 2003; Long, 2015; Nunan, 2004; Samuda & Bygate, 2008; Skehan, 1998) and online teaching environments (Hampel, 2006; Lamy & Hampel, 2007; 2005; Wang, 2007). Nowadays, computer-assisted language learning (CALL) has become prevalent and attracts many researchers' attention, especially in foreign language education (Blake, 2011; Grgurović et al., 2013; Petersen & Sachs, 2015). Web conferencing, which combines multiple modes (such as text chat, audio, and video) and enables real-time oral-visual interaction (Wang, 2008), has been considered as one of the most effective tools for online language teaching (Hampel & Stickler, 2012; Satar, 2013; Stickler & Shi, 2013). Remarkably, to date, few studies have investigated the implementation of communication tasks in web conferencing-based online classrooms with a focus on instructor and learners' multimodal interactions or the negotiation of meaning in learners' collaboration. As Stockwell (2010) argues, "[t]here is a need, then, to investigate how task-based learning (TBL) maybe conducted in [multimodal] environments, and how the medium has the potential to affect the way in which learners interact, the language they produce and the strategies they use" (p. 102).

With the rapid development of online technology and escalating bandwidth capabilities, audio and videoconferencing applications, which combine different tools such as interactive whiteboard, shared screen, audio, video, and text chat, have shown great potential in overcoming geographical obstacles to learning and in reducing isolation for distance learners (Hampel & Hauck, 2004; Wang, 2004a). Wang (2008) suggests that Internet-based videoconferencing "may emerge as a viable tool for generating oral-visual interaction in distance language learning" (p. 238). On the other hand, disadvantages of using web conferencing have also been reported,

including: (a) technical issues, such as time lag and audio delays (Wang, 2004a); (b) less equality of learners' participation without teacher presence (Berglund, 2009); and, (c) students' reluctance in using webcam in teletandem sessions (Telles, 2010). Salaberry (2000) argues that it is critical for language instructors to analyse how to achieve pedagogical goals through activity design and implementation in computer-mediated communication (CMC) environments. Hampel and Stickler (2012) have also pointed out that there is a need to examine the influence of multimodal environments on learners' interactions in their analyses of multimodal communication in online classes. This requires language education professionals to take into account the affordances of the technology in the online language course design.

As the most widely spoken language in the world when combine the vast number of native speakers and those who use is as their second language, Chinese has been taught in Australian universities and schools since the 1950s. However, due to its nature in terms of orthography and its pronunciation system, Chinese is considered by most Australian learners as a language that is difficult to learn. Recently, an increasing number of studies have attempted to apply TBL approaches in virtual Chinese learning environments, such as the 3D multi-user virtual environment Second Life (Lin et al., 2014) and other video-conferencing online settings (Wang, 2008). The present study reports on the use of a web conferencing tool—Blackboard Collaborate—in the context of an ab initio Chinese language program. The study attempts to bridge the aforementioned gap by expanding the use of a TBLT approach in a web conferencing-based online Chinese class and explores successful instruction and task design for a synchronous CMC-based beginners' online Chinese class.

To achieve this, an in-depth action research approach was adopted to investigate the influence of applying TBLT in a web-conferencing environment on learners' interactions and evaluating the

appropriateness of both the task design and the software. Chapter 2 reviews the theoretical foundations of second language acquisition theories (SLA), TBLT principles, and the relationship between TBLT and learners' multimodal interactions in CMC environments. It further presents Chapelle's (2001) six evaluation criteria for CALL task appropriateness and Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks and discusses their relevance to the current study.

Chapter 3 introduces the research design of the current study, including the action research and the mixed-method approach. It details the development of the research design of the study and the advantages and limitation of mixed methods. Further, it provides an overview of the research plan, which consists of two stages. The first stage investigates learners' multimodal interactions and negotiation of meaning (NfM) in the web conferencing environment. The second stage focuses on the evaluation of task design of this study. It introduces the background of the study, including the objectives, the participants, the researcher's role, and the procedures. The task design principles and the framework employed in this study are also discussed in detail.

Chapter 4 provides an elaboration of the context of the study, which consists of two main phases: the first research stage, in which the web conferencing tool, Blackboard Collaborate, is trialled by the researcher and a group of volunteers; and the second research stage, which focuses on the evaluation of the technological capabilities and appropriateness of the tasks designed. It further presents the functionalities of Blackboard Collaborate, the web conferencing tool used in the study. The last section elaborates the task design framework, and more importantly, the adoption and adaption of Chapelle's (2001) six evaluation criteria for CALL task appropriateness and Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks in this study.

Chapter 5 illustrates the outcomes of the first data-gathering stage. The data collected from the first stage are analysed in order to answer the first research question:

How do the teacher and students use multiple modes to communicate with each other in a task-based online class?

Moreover, in order to trial the tasks designed for collaborative language learning, learner-learner interaction in the web conferencing environment is examined to answer the second subsidiary question：

What are the characteristics of negotiation of meaning in web conferencing-supported peer-to-peer interaction?

Chapter 6 presents the data collected in the second research cycle. In the second research stage, a more in-depth evaluation of the appropriateness of web conferencing-based collaborative tasks and web-conferencing tools is conducted with the aim of answering the third subsidiary question:

What are the pedagogical benefits and limitations of applying the web conferencing tool in a task-based introductory Chinese online class?

Chapter 7 provides a general summary of the results in the first and the second research stage (as outlined in Chapter 5 and chapter 6). The learners' and the teacher's multimodal interactions, negotiation of meaning, and the evaluation of the appropriateness of the tool and the collaborative tasks is discussed in order to shed more light on online learning and teaching design. Further, it presents a general review of the pedagogical values of implementing TBLT in the web conferencing environment, recommendations and implications for online language teaching, limitations of the current study, and directions for future research.

2 Chapter 2 Theoretical foundations

This current study is an investigation of the implementation of the task-based approach in a web conferencing-based online Chinese class. Derived from both the interaction approach to second language acquisition (SLA) and sociocultural theory, task-based language teaching (TBLT) has been recognised in abundant literature as a very effective language teaching approach in face-to-face environments (Ellis, 2003; Nunan, 2004; Samuda & Bygate, 2008; Van den Branden, 2006). The fundamental driving force behind the TBLT approach is based on the rationale that tasks can stimulate learners' interactions (see section 2.1), which can facilitate L2 learning (Pica, 1994; Pica & Doughty, 1985b; Pica et al., 1996). Moreover, it can provide opportunities for learners to collaboratively work on tasks with others that they are not able to complete by themselves (Vygotsky, 1978).

Since the 21st century, researchers' attention has been drawn to technology-mediated TBLT (Chapelle, 2001; Ortega & González-Lloret, 2014; Stockwell, 2010). González-Lloret and Ortega (2014) argue that "[t]he imperative of integrating technology in education is undisputed today" (p. 1). Recently, a substantial body of research on SCMC has focused on communication and interaction in multimodal learning environments and its influence on learners' SLA (Abrams, 2016; Hampel & Stickler, 2012; Lin, 2015; Rouhshad et al., 2016; Stickler & Shi, 2013). Chapelle (2014b), for instance, has noted that "[t]he focal question of the past decade has been about how to best use technology to enhance second language learning" (p. 324). Multimodal technologies such as audio/video conferencing, which incorporate images, audio, video, and text, provide learners with efficient and diverse modes of communication. Although implementation of those tools in foreign language classes has became more pervasive now, Hampel and Stickler (2012) have suggested that "there is a lack of research that examines the

impact of this combined use of tools on interaction and analyses multimodal communication in an online language classroom" (p. 119).

Following a review of the aforementioned theories, Chapelle's (2001) and Wang's (2007) evaluation criteria are compared and discussed. Guided by prior research, this study aims to propose a set of criteria for evaluating the appropriateness of web conferencing tools and collaborative task design, the results of which will also be presented.

The literature review begins with a discussion of the theoretical foundations of TBLT, which are the interaction approach to SLA and sociocultural theory. As Ellis (2003) argues, "[t]asks that stimulate negation and through this provide comprehensible input and feedback and push learners to reformulate are the ones that will work best for acquisition" (p. 80). Sociocultural theory reasons that task-based interaction can engage learners in collaboration and group work with peers (Vygotsky, 1978).

In order to contextualise the present study and relate it to previous research, a review of the relevant studies on TBLT is also presented, which covers the definitions of task and communication task typology, the implementation of TBLT in face-to-face classes, and the task design framework. In section 2.4, the development of CMC and its relationship with interaction is discussed. Section 2.5 reviews the current literature on medium, modes, and affordances of multimodal learning environments. The last section of this chapter compares Chapelle's (2001) six criteria for CALL task appropriateness and Wang's (2008) criteria for evaluating meaning-focused web-conferencing tasks.

2.1 Theoretical Foundation one: the Interaction approach to second language acquisition

According to VanPatten and Williams's (2014) differentiation between *theories* and *hypotheses*, a theory is a set of statements which accounts for or explains natural phenomena; a hypothesis, however, explains only one single phenomenon. Theories of second language acquisition (SLA) explain the process of how people learn a second language.

The classifications of SLA theories vary among different scholars. Larsen-Freeman and Long (1991) noted that over forty 'theories', 'models', and 'hypotheses' existed in SLA literature. In 2007, the number had increased to sixty (Long, 2007). Larsen-Freeman and Long (1991) classified the SLA theories into three categories: Environmentalist theories, Nativist theories and Interactionist theories of SLA. Ortega (2011) distinguished SLA theories into two major groups: cognitivist (subdivided into linguistic and interactionist) and socially oriented. More recently, Mitchell et al. (2013) classified SLA theories into six groups: linguistic, cognitive, meaning-based, sociocultural, sociolinguistic, and the Interaction Hypothesis.

Interactionist theories of SLA focus on the contribution of both learners' internal mechanisms and the linguistic environment in SLA, and thus encompass concepts including input, negotiation, output, feedback, and attention. The theories were originally integrated and referred to as the Interaction Hypothesis (Long 1983, 1985). However, following a great deal of empirical work and theoretical advancement, it is now referred to as the *interaction approach* (Gass & Mackey, 2014).

Since Long's early version in 1980s and his update in 1996, the interaction approach has witnessed a growth of empirical work and meta-analyses in SLA (e.g., Li, 2010; Plonsky &

Gass, 2011). Gass and Mackey (2014) point out that "[i]t is now commonly accepted within the SLA literature that there is a robust connection between interaction and learning". The interaction approach explains language-learning processes through learners' exposure to language, language production, and feedback on language output.

The fundamental role of input is widely recognised in SLA literature. Krashen (1981, 1982, 1985) advocates the importance of making input meaningful in learners' SLA in his famous Input Hypothesis. He believed that learners' access to comprehensible input and their low "affective filter" can help them acquire an L2. However, he failed to explain what process makes input comprehensible (e.g., Ellis, 1999a). Prompted by this, Long (1983b, 1985a) developed his early version of the Interaction Hypothesis, in which he maintained that although input is essential for acquisition, it alone is not sufficient as without negotiation opportunities, language learning may not occur (Gass & Varonis, 1994; Mackey, 1999). In his later version of the Interaction Hypothesis, Long (1996) argued that negotiation can facilitate language learning by providing L2 learners with feedback, comprehensible input, and opportunities to produce output. Swain (1985) also delineated the limitation of input and argued the importance of output in conversation. In general, the interaction approach focuses on three major aspects of interaction: exposure to language (input), feedback on production (through interaction), and production of language (output). Gass (2003) states that interaction research "takes as its starting point the assumption that language learning is stimulated by communicative pressure and examines the relationship between communication and acquisition and the mechanisms (e.g., noticing, attention) that mediate between them" (p. 224).

In its current form, the interaction approach subsumes some aspects of the Input Hypothesis (Krashen, 1982, 1985) as well as the Output Hypothesis (Swain, 1985, 1995, 2005). Other

scholars have also termed it as the input, interaction output *model* (Block, 2003) or interaction *theory* (Carroll, 1999).

This section highlights key aspects of the interaction approach including: input, negotiation, output, feedback, and attention. It ends with a summary of the relationship between interaction and SLA, with the purpose of exploring the factors that have the potential to create an optimal SLA environment.

2.1.1 Input

Input is the *sine qua non* of acquisition. Different approaches to SLA view input in various ways and attribute different weight to it. From the perspective of Universal grammar (UG), input is a trigger that interacts with an innate system and/or the native language to promote SLA. Cognitive perspectives on SLA state that language construction is learned through using language and engaging in communication. According to Krashen's (1981) Input Hypothesis, also known as Monitor Theory, if input is made comprehensible to learners, acquisition will take place. He believes that there are three ways to obtain comprehensible input: context, simplified input, and interaction. He argues that input should be at the "i+1" level, which is just beyond what the learner can fully understand. It assumes that if a learner can understand meaning, he/she can automatically acquire the form. He regards comprehensible input as the result of simplification with the assistance of contextual and extra linguistic cues.

Krashen's hypothesis is valuable in proposing the key role of comprehensible input in second language learning. However, it does not admit the importance of interaction. In his theory, speech "emerges" when the learner has sufficient input. As far as the output is concerned, output

is indirect to language acquisition since one speaker's input can lead to more talk from other speakers, which will eventually contribute to more comprehensible input (Krashen, 1982).

Krashen's hypothesis has been criticised for three reasons: (1) the insufficiency of comprehensible input; (2) the ambiguity of the claims; and, (3) the insufficient explanation of comprehension and acquisition (Long, 1985a; Schmidt, 1990; Swain, 1985; White, 1989).

In the view of Interaction Hypothesis, input refers to "language that is available to the learner through any medium (listening, reading, or gestural in the case of language)" (Gass & Mackey, 2006, p. 5). Krashen's (1981) Input Hypothesis and the interaction approach share the notion that input is essential for language acquisition. Long (1985) maintained that input is necessary for acquisition, but further argued that input alone is not sufficient. Long (1985) stressed the importance of *interactive input* on comprehension, which is achieved by *interactional modification.* According to Long (1983a), interactional modification occurs when the conversational repair moves between interlocutors with the aim of achieving *modified interaction* or *negotiation of meaning* (see below), which includes confirmation checks, clarification requests, and comprehension checks. In his later version of the Interaction Hypothesis, Long (1996) further acknowledged the role of input in facilitating negative feedback, attention, and output. He argued that "environmental contributions to acquisition are mediated by selective attention and the learner's developing L2 processing capacity, and that these resources are brought together most usefully, although not exclusively, during *negotiation of meaning*" (p. 414).

A great number of studies have shown that interactional modifications can help make input more comprehensible, which, in turn, assists in language learning (Gass & Varonis, 1985; Gass &

Varonis, 1986; Pica, 1994; Pica & Doughty, 1985b; Pica, Kanagy, & Falodun, 1993; Scarcella & Higa, 1981; Varonis & Gass, 1985; Varonis & Gass, 1985). The following section focuses on the benefits of negotiation for meaning in SLA.

2.1.2 Negotiation for Meaning

Literature has shown that, compared to input without interaction opportunities, negotiation for meaning during interaction can lead to better learning outcomes (Loschky, 1994; Pica et al., 1987). It provides learners with feedback, comprehensible input, and opportunities to produce output, and therefore contributes to maintaining the communication flow. In the later version of the Interaction Hypothesis proposed by Long (1996), negotiation for meaning refers to "[t]he process in which, in an effort to communicate, learners and competent speakers provide and interpret signals of their own and their interlocutor's perceived comprehension, thus provoking adjustments to linguistic form, conversational structure, message content, or all three, until an acceptable level of understanding is achieved" (p. 418). To demonstrate the insufficiency of innate or environmental variables theories, Long (1996) proposes that "environmental contributions to acquisition are mediated by selective attention and the learner's developing L2 processing capacity, and that these resources are brought together most usefully, although not exclusively, during negotiation for meaning" (p. 414). He argues that negotiation for meaning that triggers interactional adjustments by the native speakers or more competent speakers facilitates acquisition by connecting "input, internal learner capacities, particularly selective attention, and output in productive ways" (p 452).

Pica (1994) summarised the potential benefits of negotiation for meaning including: modifying input to make it more comprehensible; eliciting pushed output; providing feedback; and, drawing learners' attention to certain aspects of their language output.

Negotiation for meaning can facilitate second language learning by providing opportunities to two types of interactions: interactional adjustments or conversational modifications (Mackey & Goo, 2012). Negotiation during interaction also provides opportunities for learners to produce modified output. Based on feedback they receive on their language mistakes, learners are led to additional cognitive processes, by which they notice the gap between the output they make and the target language.

As mentioned earlier, negotiation during interaction can create opportunities for learners to produce modified output. Based on feedback they receive on their language breakdowns, it can lead them to further cognitive processes. The next section turns to a discussion of the important role that output plays within the interaction approach.

2.1.3 Output

Output refers to the language that L2 learners produce in the process of communication. In Swain's (1985) seminal study in French immersion classrooms, after years of receiving comprehensible input, some Canadian students still had a level of French competence that fell short of native-like abilities. She hypothesised that this was due to the lack of opportunities to produce language output and limited interaction. In contrast to Krashen's (1981) "comprehensible input", which claims that input itself is sufficient for language acquisition, Swain's (1985) output hypothesis argues that not only comprehensible input can promote language acquisition, opportunities to produce language output are also necessary.

Modified output is viewed as an effective form of stimulation, which allows learners to reflect on their origin language production. Swain's output hypothesis (1985) states that production "may force the learner to move form sematic processing to syntactic processing" (p. 249). Swain

(1993) further points out that "[l]earners need to be pushed to make use of their resources; they need to have their linguistic abilities stretched to their full set; they need to reflect on their output and consider ways of modifying it to enhance comprehensibility, appropriateness, and accuracy" (p. 160–61). In other words, during their engagement in interaction, learners may be aware of (i.e., notice) their linguistic deficiencies and push themselves to make efforts to use certain forms that are beyond their grasp (Swain, 1995, 2000).

A great number of researchers argue that output plays a crucial role in pushing learners to produce the target language in a more accurate, appropriate, complex, and comprehensible ways, and by doing so learners would receive feedback on their output (Gass, 1988; Gass, 1997; Long, 1996; Pica, 1994; Swain, 1993, 2005; Swain & Lapkin, 1995). Swain (1995) contends that output facilitates learners to test their hypotheses in the target language, and make their modifications when necessary.

2.1.4 Feedback

Interactional feedback, especially negative feedback, has received great attention in interaction research. Previous studies have shown that negative feedback can help draw learners' attention to L2 forms, in ways that enable them to notice their linguistic gaps and focus on language forms (Gass, 1997; Gass, 2003; Long, 1996; Long, 2007; Pica, 1994; Schmidt, 1990; Schmidt, 1995, 2001; Swain, 1995, 2005; Swain & Lapkin, 1995).

There are two types of feedback: explicit and implicit. Explicit feedback includes overt language corrections and metalinguistic explanations. Implicit feedback includes negotiation moves (such as clarification requests, confirmation checks, and comprehension checks) and recasts (Mackey & Goo, 2012). Gass and Mackey (2014) summarise implicit forms of feedback including negotiation strategies as follows:

- confirmation checks: expressions that are designed to elicit confirmation that an utterance has been correctly heard or understood (e.g., *is this what you mean?*)
- clarification requests: expressions designed to elicit clarification of the interlocutor's preceding utterances (e.g., *what did you say*?)
- comprehension checks: expressions that are used to verify that an interlocutor has understood (e.g., *did you understand*?)
- recasts: a rephrasing of a non-target-like utterance using a more target-like form while maintaining the original meaning (p. 186).

Recasts are considered to contribute to create optimal environments for SLA since they can provide immediate feedback on learners' linguistic mistakes, when the meaning has been understood by interlocutors.

In addition to a great number of studies on input, negotiation, output, and feedback, research on learners' cognitive capacities and processes (such as noticing and attention) has recently gained more popularity. Learners may benefit more from feedback when they can notice the correct nature of feedback (Robinson, 2003). Therefore, the next section moves on to the role of noticing and attention in the interaction approach.

2.1.5 Noticing and attention

The timing and ways to provide corrections are the main concern of language instructors. As communication and interaction are the primary parts of language acquisition, communication is interrupted when an instructor starts to make an overt correction. As a result, the focus of interaction shifts to language-as-object rather than meaning exchange.

According to Smith (1991, 1993, 1994), and in line with tenets of the noticing hypothesis put forward by Schmidt (1990; 1995), augmenting the "noticeability" of input, he states that learners' attentions do not focus on language form at the outset. They need to consciously notice

the differences between their production and target language form(s) to process the input and transform it into intake. By “flagging” grammatical items (highlighting, underlining, colouring rule giving, etc.), a learner’s attention is directed to target forms. He admits that implicit language learning may occur; for instance, learning by noticing form without understanding the grammatical rules. On the other hand, he still believes that understanding the rules or principles can facilitate the production of output more directly. Gass (1988) maintains that “[w]ithout selective attention, grammar development does not take place. In other words, a first step in grammar change is the learner’s noticing (at some level) a mismatch between the ambient speech and his or her own organization of the target language” (p. 212).

Chapelle (2005) argues that Interactionist SLA theory is heavily underpinned by Schmidt’s noticing hypothesis:

> One might sum up the benefits proposed by interaction theory as the means of prompting learners to direct their attention in useful ways to linguistic input. In this sense, the interaction hypothesis is related to the noticing hypothesis (Schmidt, 1992), which hypothesizes the value of attention directed toward key linguistic features during second language tasks (p. 56).

To sum up, the interaction approach emphasises the importance of comprehensible input, learners’ selective attention, and the production of language in interaction. The following section elaborates the relationship between interaction and SLA.

2.1.6 Interaction and the interaction approach to second language acquisition

The interaction approach posits that interaction can “facilitate language acquisition because it connects input (what learners hear and read); internal learner capacities, particularly selective

attention; and output (what learners produce) in productive ways" (Long, 1996, pp. 451–452).

According to Gass (1997), interaction plays a significant role in the transformation process from linguistic input into the learners' interlanguage knowledge. There are three main benefits obtained through interaction: negotiation of meaning, obtaining enhanced input, and directing attention to linguistic form (Chapelle, 2007).

Ellis (1999b) defines interaction as "the social behaviour that occurs when one person communicates with another" (p. 1). He also says that it "can occur inside our minds, both when we engage in the kind of 'private speech' discussed by Vygotsky (1978), and, more covertly, when different modules of the mind interact to construct an understanding of or a response to some phenomenon" (p. 1).

Gass and Mackey (2006) provide an overview of the Interaction Hypothesis and summarise the process of language learning through interaction (Figure 2.1)

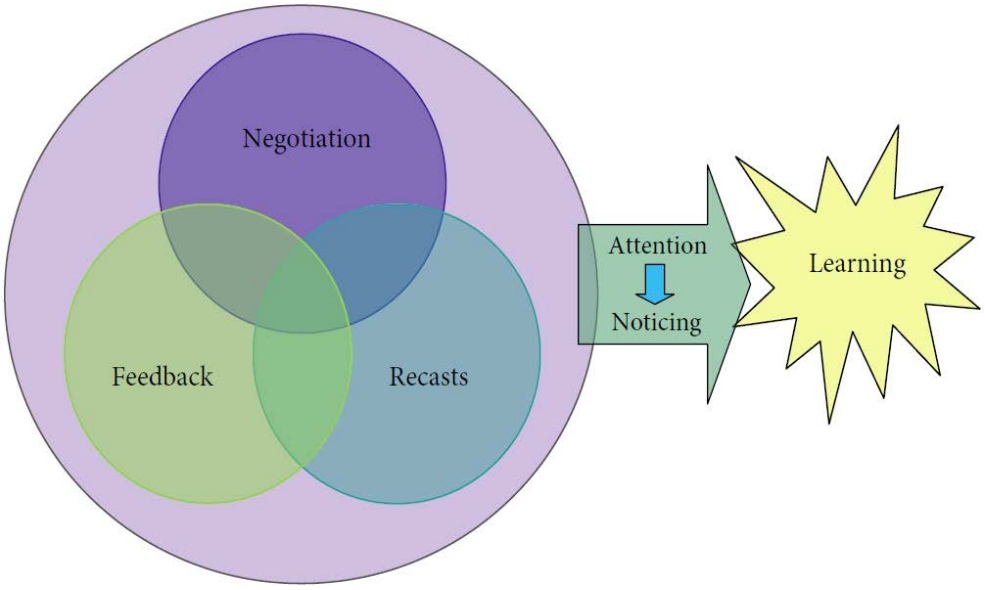


Figure 2.1 Model of Interaction and Learning (Gass & Mackey, 2006, p. 4)

As Figure 2.1 illustrates, in a conversation, at the outset, lack of understanding leads to communication breakdown, which further triggers the negotiation of meaning or conversational modification between interlocutors. During the process of negotiation to solve impasses in communication, conversational participants use different strategies to signal and respond in order to enhance their comprehension of input. In this way, interlocutors receive negative feedback, including recasts, which help them to produce modified output. As a consequence, they notice the gap between input and output and potentially direct their attention to focus on form (Gass & Mackey, 2006; Mackey et al., 2012).

The Interaction Hypothesis suggests three ways that interaction can contribute to SLA: first of all, interactional modification can make input more comprehensible for learners; second, learners' SLA is facilitated by receiving feedback on their language production; and lastly acquisition is promoted when learners are "pushed" to reformulate their language output (Ellis, 2003).

The interaction approach establishes a strong relationship between interaction and language learning. Interaction is also supported by sociocultural theory, which focuses on collaboration and mediation in learners' cognitive development.

2.2 Theoretical foundation two: Sociocultural Theory of second language acquisition

The sociocultural theory is rooted in Vygotsky's (1978) work, which claims that meaningful interaction with peers is the basis of new knowledge acquisition. It proposes that learning takes place in interaction or mediation between peers. Different from the perspective of the interaction approach, it emphasises the social context and the environment.

The fundamental concept of sociocultural theory lies in Vygotsky's (1978) notion of *mediation*. He argues that human mental functioning is mediated by tools (objects and symbolic means such as language) and that the process of mediation is organised by cultural artefacts, activities, and concepts. Meditation, in the context of L2 learning, refers to a process in which higher levels of mental activities develop through social interaction, mediated by languages (Donato & McCormick, 1994). Ellis (2000) points out that "participants always co-construct the activity they engage in, in accordance with their own socio-history and locally determined goals" (p. 208, as cited in Hampel, 2006). Language is considered as an effective tool that mediates both humans' mental processes and their interactions in the social context (Vygotsky, 1978; Wertsch, 2007).

Vygotsky's (1978) study of children's learning reveals that learners' processes occur through the "Zone of Proximal Development (ZPD)" under the guidance of a teacher or an advanced peer. He terms ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Collaboration with peers provides learners optimal scaffolding opportunities for their language ability development (Lantolf, 2000). This construct explains how learners, through scaffolding, can accomplish the tasks that they are not able to carry out independently (van Lier, 2000). As Vygotsky (1987) notes, interaction helps learners to enhance their language proficiency by providing opportunities to collaborate with peers, since "the range of tasks that children cannot yet perform independently but can perform with the help and guidance of others" (as cited in Ormord, 2003, p. 38).

By doing so, learners create ZPD during collaboration with a more capable interlocutor (Swain,

2000). In its application in SLA, ZPD is considered to provide optimal scaffolding not only for learners' internalisation (Pica et al., 1993), but also for collaborative problem solving (van Lier, 2000).

Ellis (2003) further proposes that the implication of sociocultural theory for task-based learning are that the task itself does not contribute to creating the context of learning; it is how the participants do the tasks. Learning "occurs *in* rather than *as a result* of interaction" (p. 177, emphasis in original). Therefore, he believes that L2 acquisition is not only an intrapersonal process but involves social interaction with others.

From the perspective of sociocultural theory, the social dimension of the development of new skills is accomplished through *scaffolding.* When applied in the field of language learning, it is termed as "the dialogic process by which one speaker assists another in performing a function that he or she cannot perform alone" (Ellis, 2003, p. 181).

Social interaction with peers is considered an essential part of language acquisition and cognitive development. In terms of language teaching methodology, all communicative language teaching approaches have paid special attention to the role of interaction. The most well-known communicative language teaching is task-based language teaching (TBLT), which provides a co-constructivist environment in which learners' attention can be drawn not only to the completion of the task, but also to the gaps that lead to the linguistic breakdowns in peer-to-peer interaction.

2.3 Task-based language teaching principles

2.3.1 The definitions of task

In pedagogy, tasks have been investigated from different angles, such as interactional or

cognitive information processing perspectives. Lai and Li (2011) identified several crucial elements in TBLT research as: "connectedness with and resemblance to 'real-world' activities (Long, 1985b; Skehan, 1998), 'collective exploration and pursuance of foreseen or emergent goals within a social milieu' (Candlin, 1987, p. 10), primacy of meaning (Ellis, 2003; Skehan, 1998), and non-linguistic goals (Samuda & Bygate, 2008; Willis, 1996b)" (p. 1).

Nunan's (1989) definition, which is considered comprehensive, maintains task as "a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form" (p. 10). In this way, learners' attention is drawn toward meaning rather than grammatical structure. As a result, the process of interaction is not affected. In addition, Nunan (1989) further explains the relationship between meaning and form as closely interrelated. Language learners "use different grammatical forms to signal differences in meaning" (p. 10). Therefore, instructors should adopt a both meaningful and communicative way to implement "non-communicative" tasks such as grammar exercises.

Pica, Kanagy, and Falodun (1993) reviewed the definitions of 'task' and generated two characteristics from the literature. One is that tasks are oriented towards *goals.* There is a certain outcome that the learners are expected to achieve and accomplish through their oral discourse or action. The second feature of task is a *work or activity*, in which the participants should take an active role to either work alone or collaborate with peers.

According to Doughty and Long (2003), TBLT is an "embryonic theory of language teaching" that incorporates various "efficient" teaching components derived from SLA theories and psychology principles (p. 51). The definition given by Samuda and Bygate (2008) include the

main elements of tasks as “a holistic activity which engages language use in order to achieve some non-linguistic outcome while meeting a linguistic challenge, with the overall aim of promoting language learning, through process or product or both” (p. 69).

In Ellis’s (2009) review of TBLT literature, he provides a set of practical definitions, using language holistically to fulfil non-linguistic goals in order to achieve meaning-based communication:

- The primary focus should be on ‘meaning’ (by which is meant that learners should be mainly concerned with processing the semantic and pragmatic meaning of utterances)
- There should be some kind of ‘gap’ (i.e. a need to convey information, to express an opinion or to infer meaning)
- Learners should largely have to rely on their own resources (linguistic and non-linguistic) in order to complete the activity
- There is a clearly defined outcome other than the use of language (i.e., the language serves as the means for achieving the outcome, not as an end in its own right) (p. 223).

A number of key aspects of task-based language learning are involved in the aforementioned comprehensive definitions, including “focus on meaning, on language use (rather than language acquisition), on a range of skills (relating to language as well as content), and on processes (as well as outcomes and products)”(Hampel, 2010, p.135).

It can be seen from these definitions that there are two different focal points in regards to tasks. One emphasises controlled and instructed activities; another takes a position on the linguistic aspect of language learning. According to Ellis (2003), there have been many attempts to classify tasks from pedagogical, rhetorical, cognitive, and psycholinguistic perspectives. In the following section, I will discuss the classification of communication tasks.

2.3.2 Communication task typologies

Nobuyoshi and Ellis (1993) draw a distinction between *focused* and *unfocused communication tasks*. *Unfocused communication tasks* refer to tasks in which no effort is made in design and implementation of a task to target particular linguistic features. *Focused communication tasks,* in contrast, are tasks designed in a way to draw learners' attention to form over meaning.

In Ellis's (2003) most cited study, tasks are classified into various categories including: pedagogical classification, (e.g., listing and problem-solving); rhetorical classification (e.g., genre and narrative); cognitive classification (e.g., information/reasoning-gap activities); and, psycholinguistic classification (e.g., interactant relationship and outcome options).

Pica, Kanagy, and Falodun (1993) presented a communication task typology. The categories cover *interactant relationship*, *communication goals*, and *outcome options*. It has been used to locate, describe, and compare five task types—jigsaw, information gap, problem-solving, decision-making, and opinion exchange—and to assess their contributions in terms of stimulating comprehension, production, and providing feedback opportunities to L2 learners. *Interactant relationship* refers to the responsibility of each participant in the task completion process. *Communication goals* involve the degree to which participants need to achieve a convergent or divergent goal. *Outcome options* include the range of possible task outcomes; that is, whether the task can have multiple outcomes (see Figure 2.2).

TABLE 2 *Communication task types for L2 research and pedagogy analysis based on: Interactant (X/Y) relationships and requirements in communicating information (INF) to achieve task goals*

	INF holder	*INF requester*	*INF supplier*	*INF requester–supplier relationship*	*Interaction requirement*	*Goal orientation*	*Outcome options*
Task Type:							
Jigsaw	X & Y	X & Y	X & Y	2 way (X to Y & Y to X)	+ required	+ convergent	1
Information gap	X or Y	Y or X	X or Y	1 way > 2 way (X to Y/Y to X)	+ required	+ convergent	1
Problem-solving	X = Y	X = Y	X = Y	2 way > 1 way (X to Y & Y to X)	− required	+ convergent	1
Decision-making	X = Y	X = Y	X = Y	2 way > 1 way (X to Y & Y to X)	− required	+ convergent	1+
Opinion exchange	X = Y	X = Y	X = Y	2 way > 1 way (X to Y & Y to X)	− required	− convergent	1+/−

Figure 2.2 Task typology proposed by Pica, Kanagy, and Falodun (1993)

In their study, they maintain that the tasks in which the information is split into two-way flows (e.g., jigsaw) and the tasks that subsequently require interactants to exchange information (e.g., information-gap and jigsaw) show higher potential in stimulating interaction and communication than other task stimuli. Moreover, they propose the task features that can create optimal learning conditions for L2 comprehension, feedback, and modified production as follows:

- Each interactant holds a different portion of information which must be exchanged and manipulated in order to reach the task outcome.
- Both interactants are required to request and supply this information to each other.
- Interactants have the same or convergent goals.
- Only one acceptable outcome is possible from their attempts to meet his goal (Pica et al., 1993, p. 17).

The current study follows Pica et al.'s (1993) task typology. Since jigsaw, information-gap, and decision-making tasks were selected and applied in the current study, the following section

discusses the implementation of these tasks in the current literature and the rationale of task selection.

Jigsaw tasks

According to Richards (2001), jigsaw tasks "involve learners in combining different pieces of information to form a whole (i.e., three individuals or groups may have three parts of a story and have to piece the story again)" (p. 162). It is considered as one of the activities most effective at generating the greatest interaction and production, not only in face-to-face settings, but also in CMC environments (Blake, 2000; Keller-Lally, 2006; Pica et al., 1993; Smith, 2003a). In jigsaw tasks, information is separated into small pieces and allocated to interactants who are then required to collaborate together to fill in the gaps (see Pica et al., 1993 for more detailed task description). Although the strength of jigsaw tasks has been acknowledged by a number of scholars, their shortcomings should not be neglected. Keller-Lally's (2006) study found that students tend to give up prematurely when they are conducting jigsaw tasks in synchronous CMC environments. Brandl (2012) also points out that the side effect of tasks types have been greatly ignored by researchers.

Information-gap task

Richards (2001) defines information-gap tasks as "tasks in which one student or group has one set of information and another student or group has a complementary set of information. They must negotiated and find out what the other party's information is in order to complete an activity" (p. 162).

Decision-making task

According to Richards (2001), in decision-making tasks "students are given a problem for which there a number of possible outcomes and they must choose one through negotiation and discussion" (p. 162). Doughty and Pica (1986), Pica and Doughty (1985b, 1985c) term decision-making tasks as those in which participants are required to make a convergent outcome from a number of choices.

Rationale of task type selection

The current literature shows that different task types have various degrees of influence on learners' SLA. In Blake's (2000) study, 50 intermediate-level Spanish language learners were asked to conduct jigsaw, information-gap (one- and two-way), and decision-making tasks in a synchronous chat program, in order to compare learners' interaction affected by different task types. Students' chat transcripts were analysed in terms of negotiation types, negotiation of miscommunication, and turn taking. The results showed that jigsaw tasks stimulated the most negotiations, whereas information gap tasks were not nearly as productive a stimulus.

Smith (2003) also compared the influence of two tasks types, jigsaw and decision-making, on the amount of learners' negotiation in text-based computer-mediated communication (CMC) with face-to-face negotiation. Twenty-eight intermediate-level ESL students collaborated in dyads to complete two jigsaw tasks and two decision-making tasks in the synchronous CMC (SCMC) setting. In his research, Varonis and Gass's (1985) model was adopted and expanded to code participants' transcripts of negotiation. Moreover, the ratio of total turns to negotiated turns was also taken into account. Interestingly, different from Blake's (2000) finding, the results

demonstrated that decision-making tasks yielded a significantly higher amount of negotiated turns than jigsaws.

2.3.3 Task-based language teaching in face-to-face classroom

Empirical evidence has been found to support the Interaction Hypothesis in the context of face-to-face TBLT teaching practice (Ellis et al., 1994; Gass & Varonis, 1985; Long, 1985b; Pica, 1994; Pica et al., 1991). Long (1983a) proposes an acquisition model and outlines the relationship between conversational task, interaction, and second language acquisition. He predicates that more negotiation may be generated in two-way tasks.

In Pica and Doughty's (1985a) study, a higher incidence of interactional modifications was noted in information-exchange group tasks rather than in teacher-fronted activities. Following that, Doughty and Pica (1986) examined the effects of task type and participation pattern among teacher-fronted small groups and dyadic groups. In their study, there were two types of tasks, when *required* and *optional* information exchanges were compared. The results suggest that (1) tasks that require information exchange between interlocutors may generate more conversational modification, (2) group and dyad interaction patterns may produce more modification than in a teacher-fronted setting, (3) task-type shows more significant influence on the incidence of modification than participation patterns, (4) a required information exchange task can stimulate more interaction in either a teacher-fronted or a group setting, and (5) the most modifications were generated among non-native speakers, who had varying proficiency L2 levels and different L1 backgrounds.

Doughty and Pica (1986) therefore hypothesised that tasks that require information exchange in small groups may produce the most conversational modifications. Their study echoes Long's

(1983b) predication that more interaction can be found in the process of information exchange. Pica (1987) also found that, in comparison to teacher-fronted activities, there were more interactional exchanges identified in student-student interaction. These studies show that task type as well as teacher presence has an impact on learners' negotiation.

Similar findings were also reported in Duff's (1986) study, which compared problem-solving (decision-making) and debate (opinion exchange) tasks in terms of convergence and divergence communication goals. She gauged the quantity of words and communication units and quality of turns, types of questions, and syntactic complexity of eight students of English who completed the tasks in dyads. She found that decision-making tasks, which are more constrained like information-exchange tasks, were more effective in generating more modified interaction than opinion exchange tasks, since in decision-making tasks, two-way exchanges of information are expected but not required and more than one task outcome is possible.

Pica et al.'s (1987) study revealed the importance of stimulating modification in learners' comprehension. They investigated 16 nonnative speakers' comprehension level in information-gap tasks under two input conditions: (1) premodified input with decreased complexity and increased quantity and redundancy, and (2) interactional modified input without linguistic premodification. The results showed that the learners' comprehension scores were higher under the condition of interactional modified input, providing empirical evidence that interaction facilitates language learning through interactional modifications, which is necessary for comprehension. Since the current study focuses on implementation of TBLT in online environments, further discussion with regard to CMC environments is presented in the next section. The use of CMC in task-based language teaching approach is discussed in section 2.4.2.

2.4 Computer-mediated communication (CMC) and interaction

2.4.1 The emergence of CMC

The earliest research on CMC can be traced back to 1978 when the book of *The Network Nation* by Starr Roxanne Hilzt and Murray Turoff (1978) was first published. Santoro (1995) defines CMC as the use of computer systems and networks for the transfer, storage, and retrieval of information among humans. However, Levy (1997) cited the definition of CMC provided by Herring (1995) as "*communication* that takes place between human beings via the instrumentality of *computers*". Poon (1997b) acknowledges the potential of CMCs through their wide accessibility and convenience and notes that its cost-effective features offers language education in a way that is more beneficial and effective for the learners and the instructors.

Generally, CMC varies from face-to-face communication in a number of ways, including: the mode employed (e.g., email, IRC, audio/video-conferencing), the language form (spoken, written), the means (textual, aural, visual), and the interconnectivity (one-to-one, one-to-many, or many-to-many). In broad terms, CMC may be categorised as either *synchronous* or *asynchronous*. Synchronous CMC (SCMC) includes real-time communication, such as chatting, audio/video conferencing, massive open online course (MOOs), and so on. Asynchronous CMC (ACMC) involves delayed forms of communication, such as email, weblog, newsgroups, discussion groups, bulletin boards, and so forth.

Recent literature shows that, in ACMC, while learners can produce more syntactically complex, greater lexical richness, more complex output may also lead to a higher rate of errors (Chun, 2008; Hirotani, 2009; Kitade, 2006; Sotillo, 2000). Ortega's (2009) study reviewed current literature on interaction and attention to language form in text-based CMC. She claims that the

design of task plays a vital role on the occurrences of negotiation of meaning in the process of task completion in CMC environments. However, recently, researchers have realised the significant role that synchronous CMC plays in language learning. Since interaction in a task-based web conferencing environment is the research focus of the current study, the next section includes a literature review of learners' interaction in SCMC.

2.4.2 Task-based SCMC discussions and its influence on learners' second language acquisition

In the current literature, the body of research examining technology-mediated TBLT has grown (Lai & Li, 2011; Ortega & González-Lloret, 2014; Thomas, 2013; Ziegler, 2016). TBLT not only provides a useful framework for designing and implementing instructional activities in computer-assisted language learning (CALL) contexts (Duran & Ramaut, 2006; Rosell-Aguilar, 2005), but has also received positive reactions from learners and teachers (Hampel & Hauck, 2004; Lai et al., 2011).

Derived from the interaction approach to SLA, previous studies have shown that SCMC has great potential in facilitating learner-learner interaction (Beauvois, 1992; Blake, 2000; Kelm, 1992; Kern, 1995; Warschauer, 1996). Kern's (1995) study compared 40 elementary level French learners' written interaction in a text-based SCMC environment and oral discussion in a face-to-face classroom. In his study, the quantity and characteristics of learners' discourse in terms of discourse functions, syntactic features, length of turns, and use of English were compared. The results echoed previous claims that the implementation of networked computers can facilitate classroom discussion (Beauvois, 1992; Chun, 1994; Kelm, 1992). The participants were provided with more opportunities to express and were able to produce more language output (cf. Möllering & Ritter, 2008). A greater variety of discourse functions and more direct

learner-learner exchange were noticed in the SCMC group. Möllering and Levy (2012) summarised the development of CMC studies and pointed out that, in the early stage (i.e., the early to mid-nineties), SCMC was focused on dialogical interaction. Due to its similarity with spoken interaction in classroom settings, SCMC is now widely acknowledged considered to support classroom activities.

The recent CMC research also suggests that SCMC can increase equality of participation (Sullivan & Pratt, 1996; Warschauer, 1996). Warschauer (1996) compared learners' equality of participation in two different modes: face-to-face and a real-time text-based CMC discussion. In his study, learners' participation in different environments was calculated, while correlated factors, such as nationality, language ability, and student attitude, were taken into account. The researchers found that the electronic discussion contributed to creating more opportunities for more equal participation.

Furthermore, research has shown that SCMC can help increase interactive competence (Beauvois, 1995; Chun, 1994; Kelm, 1992; Kern, 1995; Warschauer, 1996). Chun's (1994) seminal work investigated a two-semester first-year German learners' interaction in a synchronous computer-assisted class discussion (CACD). In her longitudinal study, participants' discourse was transcribed and examined in terms of (1) the quantity and the quality of the language output; (2) the syntactic complicity of the entries; and, (3) the discourse structures made by different genders. The findings show that CACD provided ample opportunities for learners to develop discourse skills and interactive competence as advocated by the ACTFL Proficiency Guidelines. Compared to face-to-face classroom, more initiative was taken by the students as the teacher's role in this study was decentralised.

Compared to ACMC, SCMC can contribute to enhance the quality and quantity of language output. Sotillo (2000) investigated 25 advanced ESL learners discussion via two modes of CMC: asynchronous and synchronous. Discourse analysis was implemented and the results showed that learners' interaction in synchronous CMC closely resembled the types of interactional modification noticed in face-to-face communication. As far as syntactic complexity was concerned, the delayed nature of the asynchronous environment allowed learners to produce more syntactically complex language output.

Hegelheimer and Chapelle's (2000) study produced some evidence suggesting that chat rooms can represent an optimal environment for SLA, as occurs in conversation. According to Long's (1996) Interaction Hypothesis, they summarised that:

> The most useful interactions are those, which help learners comprehend the semantics and syntax of input and which help learners to improve the comprehensibility of their own linguistic output. […] In face-to-face conversation, comprehension can be achieved through negotiation of meaning […] One reason that negotiation of meaning is valuable is that it can result in modified input—input which is better tuned to the learner's level of ability. (p. 42)

Abrams's (2003) study compared learners' language performance in three modes: face-to-face, SCMC, and ACMC discussion. Participants' output was analysed according to different scores between their pre-test and final oral discussion. The scores were determined by the number of communicative units (c-units), lexical richness, lexical density, and syntactic complexity. The results showed that learners' output was higher in SCMC compared to the other environments, and that students in the ACMC group produced much less output than their peers in the face-to-

face and SCMC modes.

Brandl (2012) investigated the effects of a required and an optional information exchange task (jigsaw task) on the quality and quantity of learners' language production in synchronous and asynchronous environments. Learners' language output was quantitatively analysed by c-units (isolated phrases that have communicative value but are not accompanied by verbs) and target-language word. The number of grammar and spelling errors were tallied to determine their language quality. While the results showed that the optional task quantitatively contributed to increased learner output, different modes (i.e., asynchronous and synchronous) do not have much influence on learners' language production.

Jepson's (2005) study showed that SCMC can enhance comprehensible output. In his study, he compared English L2 learners' patterns of repair moves in conversational text and voice chat rooms. The results suggest that conversational chat rooms are conducive to learners' SLA by facilitating repair moves, such as clarification requests, confirmation checks, self-repetitions, recasts, explicit corrections, and incorporation repair moves. Negotiations of meaning-type repair moves were also identified in the voice chats.

In addition, Blake and Zyzik's (2003) study found that, compared with face-to-face interaction, SCMC allows more processing time in learners' discussion. As Payne and Whitney (2002, p. 14, cited in Blake and Zyzik, 2003) point out, "[in CMC], the processing demand is reduced, or, more precisely, the amount of language that an individual has to parse, comprehend, and respond to is lower for a given time period". Synchronous text-based CMC allows more time for learners' to process their responses, which in turn facilitates their SLA (Warschauer, 1997).

Last but not least, research has shown that SCMC can promote the noticing of forms and gaps between learners' interlanguage and target language. Yilmaz and Yuksel's (2011) study found that, compared to face-to-face task-based interaction, written text-chat yielded more recasts. The results suggest that the implementation of technology might be conducive to reducing the cognitive load on learners during the process of task completion, allowing for more attention to corrective feedback as well as making form-meaning connections.

To sum up, current studies have shown that SCMC can contribute to facilitating learner-learner interaction, increasing equality of participation, enhancing language output, allowing more time to process responses, promoting the noticing of forms and gaps between learners' interlanguage and target language, and contributing to negotiation of meaning. Since one of the research foci is to investigate learners' negotiation of meaning in the process of task completion via Blackboard Collaborate, the next section moves on to review negotiation of meaning in task-based synchronous online communication modes.

2.4.3 Negotiation of meaning in task-based synchronous online environments

In the last two decades, a number of CALL studies have reported that negotiations in the real time online context are more likely to share a similar pattern with face-to-face settings but with its own features. A great number of studies have adopted Varonis and Gass's (1985) model to identify learners' negotiation routines in synchronous online settings and compare it to face-to-face classrooms (Fernández-García & Martínez-Arbelaiz, 2002; Kötter, 2003; Pellettieri, 2000; Toyoda & Harrison, 2002; Wang, 2006)

Pellettieri's (2000) study examined 20 intermediate-level Spanish learners' discussion during communicative tasks carried out using text-chat. She designed a series of tasks in a classroom

setting and researched the influence of task-based networked discussion on learners' negotiation of meaning and form-focused interaction. In the study, she examined, first, whether negotiation took place in the task-based real-time online setting; second, whether negotiation of meaning lead to mutual understanding; third, whether negotiations facilitated learners' meaning- and form-focused modifications; and last, whether corrective feedback was incorporated in subsequent turns. Transcripts were coded and analysed based on Varonis and Gass's (1985) model. Her findings showed that in the completion of task-based negotiation, learners' attention focused on both meaning and language form. Negotiation of meaning did occur in the online chatting discussion. The learners even corrected their own language errors and those of their peers simultaneously in the process of conducting meaning-centred tasks. It seemed that text chat has a positive influence on promoting learners' attention to language form. Additionally, it can facilitate mutual comprehension and lead to successful communication.

Toyoda and Harrison's (2002) study employed discourse analysis methods to sort the incidences of negotiations between five Japanese native speakers and non native speakers to determine specific types of communication difficulties that trigger negotiation of meaning and explore how to improve the quality of communication. The participants' chat logs were coded according to the functional categories established by Varonis and Gass (1985). The results showed that, when producing the L2, a learner would on occasion become aware of a linguistic problem (brought to his/her attention either by external feedback, e.g., clarification requests or internal feedback). Noticing a problem "pushes" the learner to modify his/her output. By doing so, the learner may sometimes be forced into a more syntactic processing mode than might occur in comprehension.

Fernández-García and Martínez-Arbelaiz's (2002) used Varonis and Gass's (1985) model to identify the instances of negotiation in four groups of 28 third-year Spanish learners' chat

transcripts. The results showed that negotiation of meaning did happen in SCMC, although it was different from that identified in the oral medium. The majority of indicators that the participants adopted were the explicit statement of non-understanding. As far as the responses were concerned, only one instance of repetition was found, which differs from the previous studies. In their study, the L1 was prevalently used as an efficient means to resolve language breakdowns.

Kötter's (2003) research also drew extensively on interactionist SLA. It was implemented in a text-based multiuser object-oriented (MOO) international collaboration project. The study analysed negotiation of meaning and codeswitching in discourse between 29 language students who teamed up with their partners in the chat rooms and via emails. The result of this tandem study demonstrated a great number of instances of negotiation of meaning in the completion of online tasks in different circumstances. It also echoed Pellettieri's (2000) claim about the importance of the provision of explicit "positive feedback" in online chat. However, a significant difference between conversational repair in spoken interactions and in the online text-based exchanges was noted. Moreover, it showed that learners were able to use L1 and L2 to solve language problems in the negotiations, which should not be neglected.

Wang (2006) investigated learners' facial expressions and gestures in negotiation routines via video conferencing. With the help of visual cues, which she termed the unique indicator in the oral-visual interaction, she confirmed that beneficial negotiation and focus on form did take place in the online environment. Ziegler (2016) reviewed the current literature and urged scholars to expand research into the area by investigating negotiation patterns across different technologies in task-based contexts.

Besides the studies comparing negotiation in face-to-face and online settings, other research has

focused on the influence of task type on learners' negotiation routines in SCMC. As Pica et al.'s (1993) task typology (see section 2.3.2) suggests, tasks that require information exchange, such as jigsaw and information-gap tasks, are considered to have great potential for eliciting negotiation. In jigsaw tasks, each participant holds part of the information and is required to exchange the information in order to achieve the task goal. Similar to jigsaw tasks, in information-gap tasks, split information is provided and interlocutors are asked to do one-way or two-way information exchange (for more details see Pica et al, 1993). Similarly, in task-based CMC studies, researchers' attention has been drawn to negotiation in jigsaw, information-gap, and decision-making tasks (Blake, 2000; Keller-Lally, 2006; Smith, 2003b).

Blake's (2000) study investigated the effect of different task type (information-gap, decision-making, and jigsaw) on 25 dyads of intermediate leaners' negotiated interaction. Based on the work conducted by Pica, Kanagy, and Falodun (1993), Blake postulated that jigsaw task and information-gap task would show more advantages in promoting negotiated interaction, and as a result, contribute to learners' SLA. The findings showed that there was a highly significant level of negotiated interaction during the jigsaw task; similar results were not confirmed during the other types of task. The data analysis showed that the lexical negotiation was more dominant than syntactic negotiation, which is in line with the Interaction Hypothesis. Moreover, this finding showed that:

> the conditions for SLA are crucially enhanced by having L2 learners negotiate meaning with other speakers, native or otherwise. Among the benefits cited, these negotiations tend to increase input comprehensibility through language modification-such as simplification, elaborations, confirmation and comprehension checks, clarifications requests or recasts-

> which end up providing the L2 learner with the type of negative evidence deemed necessary by some SLA theories for continued language development. (p. 121)

In Smith's (2003b) study, 14 non-native speaker dyads collaboratively conducted two jigsaw tasks and two decision-making tasks seeded with target lexical items in SCMC. Transcripts were coded based on Varonis and Gass's (1985) model of negotiation. The researchers found that negotiation of meaning did take place in the SCMC environment. Learners' collaboration on decision-making tasks outperformed negotiation turns in jigsaw tasks. Moreover, lexical problems were the main triggers for negotiation, which also confirms previous research by Pellettieri (2000).

Keller-Lally (2006) investigated the impact of task-type (jigsaw, decision-making, and opinion exchange) and group size (dyads and small group) on learners' frequency of negotiations and language production. In her study, 62 intermediate German language learners' online discussion via SCMC was transcribed and coded in terms of L1/L2 language use and off-task communication units. The results of her statistical analysis illustrated that learners' language output in decision-making tasks and opinion exchange tasks outweighed that in jigsaw tasks. In addition, no significant difference in the amount of negotiations between decision-making and jigsaw tasks was noticed in her study, which was contrary to Blake's (2000) and Smith's (2003) findings.

To sum up, a number of studies have adopted Varonis and Gass's (1985) model to identify and compare negotiation of meaning in SCMC and face-to-face interactions. The findings confirmed that Varonis and Gass's model is adequate for describing the interactions presented in SCMC settings except for Wang's (2006) study, in which she added visual indicators emerging in

videoconferencing-supported environments. All the abovementioned studies confirmed that negotiation did occur in real-time online settings, which in turn can facilitate learners' second language acquisition. Yet the findings also revealed that there was a marked difference between conversational repair in spoken interactions and in SCMC (Kötter, 2003; Toyoda & Harrison, 2002). Furthermore, the use of L1 was noted and should be expected when learners are attempting to repair language breakdowns (Fernández-García & Martínez-Arbelaiz, 2002; Kötter, 2003).

Existing literature that examines learner-learner negotiation interaction in task-based web conferencing environments is limited, especially in relation to audio/video conferencing tools. The current study aims to bridge this gap by examining whether negotiation of meaning occurs in collaborative tasks via web conferencing. If so, what are the characteristics of negotiation of meaning in this online environment? The first research stage was carried out in order to answer that question (see section 5.2.2).

As far as task types are concerned, a few studies have been carried out to compare learners' negotiation routines during jigsaw, information-gap, decision-making, and opinion-exchange tasks. However, the findings are contradictory among different online environments. According to Pica et al.'s (1993) task typology, tasks that require information exchange, such as jigsaw and information-gap tasks, are considered to have great potential for eliciting negotiation. In order to best stimulate learners' negotiation and cater to their language needs, jigsaw, information-gap (in which information is split), and decision-making tasks (in which students can make a convergent outcome from a number of choices), were selected in the current study. More details of the tasks in the current study are discussed in section 4.3.

2.5 Multimodality and language learning

Previous studies on CMC have primarily focused on language learning through a single mode of communication, such as text chat, audio chat, email, and discussion forum. However, as technology has developed, researchers have realised the significant role of multiple semiotic modes in meaning making and its influence on language learning. Studies on SLA and CALL illustrate that successful language learning embraces co-construction of communication skills (Hafner et al., 2015). Magnan (2007) suggests that "languages are best learned by a combination of talking, hearing, reading, and writing" (p. 153).

2.5.1 Multimodality

Multimodality focuses on the interconnection among representation, meaning making, and communication as distinct but interrelated processes (Kress, 2010).

The concept of multimodality, which was first introduced by Kress and van Leeuwen (2001)has been defined as follows:

> [T]he use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which these modes are combined – they may for instance reinforce each other [...] fulfil complementary roles [...] or be hierarchically ordered. (p. 20)

As Kramsch (2006) further explains, the present needs of education are more than communicating meaning, but require learners to understand the process of meaning-making itself, which involves various competences in manipulating symbolic systems. This means that learners should have "symbolic competence" to interpret meaning through different modes (such as spoken, written, visual, and electronic). These conclusions are based on the premise that

multimodality facilitates communicative competence and reinforces the importance of communicative competence teaching (Kramsch, 2006).

Recent research has also focused on semiotic modes' influence on meaning making, due, in particular, to the fact that different technological affordances affect the multimodality for communication in online interaction. Kress (2001) for instance, in order to set "a new agenda of human semiotics in the domain of communication and representation", and describes it as "a dynamic, constantly remade and reorganised set of semiotic resources" (p. 20). This suggests that it is possible to construct a learning environment that combines visual modes (graphics), verbal modes (writing, text chat), and the acoustic modes altogether, thereby realising the "meaning potential of language" (p. 157).

Chun and Plass (2000) also highlighted that networked hypermedia environments "not only present learners with information in various modes (visual, audio, and verbal/textual), but also require learners to engage in productive tasks and activities in a variety of modes, both synchronous and asynchronous methods of student collaboration, [which] employ video, images, sound, and text for both the presentation and the negotiation of information" (p. 152).

In Vandergriff's book (2016), she argues that multimodal online spaces can foster the development of an autonomous L2 self in a way that traditional classroom constrain. Moreover, The digital environments afford opportunities for L2 learners to connect with authentic discourse.

2.5.2 Modes, affordances, and language learning

In the last two decades, there has been an increasing research interest in learners' interactions in multimodal language learning environments (Calvo-Ferrer et al., 2016; Hampel, 2012; Hampel

& Hauck, 2006; Kress, 2010; Ligorio, 2001; Norris, 2004; Zheng & Warschauer, 2017). Ligorio (2001) for example, has suggested that multimodal environments can provide users with a range of choices to cater for their needs.

Although advanced devices make collaboration among learners possible in virtual classrooms, when attempting to duplicate the CALL application from a conventional classroom, it is vital "to understand the meaning-potentials of the resources as precisely and as explicitly as we can" (Abrams, 2011, p. 71) and to do that "we need to attend to the *materiality* of the resources, the material *stuff* that we use for making meaning" (Kress, 2003, p. 24). Yim and Warschauer (2016) also conclude that the "effective integration of technology […] depends on the *affordances* of the particular technology and the ways [in which] strengths and challenges can be coordinated as a pedagogical tool" (p. 254).

Currently, an increasing number of researchers explore the implementation of a task-based language teaching approach in technology-based environments. In their seminal research, Doughty and Long (2003) paid "special attention to the use of technology" and developed a number of methodological principles for TBLT. They concluded that technology and TBLT are interdependent: with technology, the methodological principles of TBLT are applied in a natural and authentic venue. The researchers concluded that TBLT provides a rationale and pedagogical framework for the employment and selection of technology, a finding that was also verified by Ortega and González-Lloret (2014).

Their principles are applicable since they take the affordances of the different types of media into account and realise that in the context of the principle of elaborate input, the implementation of online interaction is not directly conducive to learners' second language acquisition.

Consequently, the goals of the tasks must be clear and the restriction of certain tasks must be outlined in advance. However, all of the principles are restricted to a task-based approach related to computer-assisted language learning in terms of CMC. According to the principle of elaborate input, although CMC is supposed to encourage interaction, their findings showed that in the context of group chat, interaction does not help with second language acquisition; for instance, turn-taking in conversation might be affected. Therefore, the learners' number might be limited to two in a CMC chat session and thus the task goals should be clear (Doughty & Long, 2003).

2.5.3 Multimodal approaches in CALL

The number of studies on multimodality studies is growing in the field of CALL (Guichon & McLornan, 2008; Levy & Stockwell, 2013). These studies range from learners' participation patterns (Hampel & Stickler, 2012) and task design (Hampel, 2006; Hampel, 2010; Stockwell, 2010) to the use of emoticons (Godwin-Jones, 2006; Hampel & Stickler, 2012), icons such as social tagging (Godwin-Jones, 2006; Negretti, 1999), as well as webcams (Codreanu & Celik, 2013; C. Develotte et al., 2010; Kozar, 2016a).

In multimodal environments, particularly in conferencing-based settings, how participants use the different modes to make meaning and facilitate collaborative learning has become the interest of recent research. Vetter and Chanier's (2006) study showed how using audio conferencing, which combines the written and oral channels, can have a positive influence on learners' oral proficiency. Ciekanski and Chanier (2008), who focused on the impact of integrating audio and text on learners' collaborative writing competence, observed learners using multiple modes to make meaning and therefore facilitate collaboration. They maintained that, in multimodal environments, learners' focus and engagement with the learning activity are influenced during the process of implementing telecollaborative tasks in which fluency may be prioritised over

accuracy. Moreover, Hauck's (2008) study indicated that, compared with other kinds of learning approaches, computer-assisted collaborative learning shows particular strength in online modes for awareness raising, meaning making, and developing multimodal literacy.

Wang (2004b, 2006, 2008), who examined learners' interaction via desktop video conferencing (DVC), noted that oral-visual interaction, which is facilitated by the multimodal environment, enabled real-time facial expression and gestures between learners and teachers. It provided semiotic cues for meaning making, which was conducive to task completion. Guichon and Cohen (2014), who also observed learners' interaction in video conferencing and audio conferencing, noticed that there was more overlapping interaction in the former mode and more student silences in the latter. They suggested that video conferencing could facilitate a fast and seamless interaction with paralinguistic cues for conversation. The investigation of participant patterns in video conferencing-mediated online classes serves as an illustration as to how participants use different modes to make meaning in multimodal environments (Hampel & Stickler, 2012; Stickler & Shi, 2013).

Empirical studies have also shown that the interplay of multiple modes may complement each other, compensate for their shortcomings, or be in competition with each other (Hampel & Stickler, 2012; Kozar, 2015). Pedagogical uses of text chat have been reported to compensate for communication problems (Cunningham, 2010) or compete with parallel audio interaction online (Hampel & Stickler, 2012). The perceptions of webcam in videoconferencing environments may also vary between novice and experienced online teachers (Codreanu & Celik, 2013; Kozar, 2016a). Learners use emoticons to complement online audio interaction (Kozar, 2015). On the other hand, literature also shows that multiple layers of modes may lead to cognitive overload and further cause misunderstanding for learners, especially for beginners (Stickler & Shi, 2013).

However, some researchers point out the weakness of conferencing tools for teaching practices. In Wang's (2004b) study, issues such as time lag and delays in lip synchronisation were identified in video conferencing-based CMC. Berglund (2009), who also investigated participant rates and conversational feedback strategies in a video conferencing-based class, found that, without teachers' presence, students' engagement resembled that of instructed discussion. However, long monological turns were identified in learners' contribution as well. Multimodality did not show an equalisation effect in terms of verbal interactions.

In summary, emerging literature on multimodal interaction in SCMC portrays a complex picture. On one hand, it provides users with a range of choices (such as audio, video, text chat, whiteboard, etc.) to cater for learners' needs (Ligorio, 2001). On the other hand, it may add additional cognitive load for learners, especially beginners, who are struggling with their language production. As Salaberry (2000) argued, applying new technologies in the classroom does not automatically generate best learning outcomes. It is critical for language teachers to analyse how to achieve pedagogical goals through activity design and implementation in CMC environments, especially multimodal environments. This leads to the first research question: *How do the teacher and students use multiple modes to communicate with each other in a task-based online class?* The first research stage was conducted to answer that question. The results are discussed in section 5.2.1.

In the next section, the research focus of the current study is examined in further detail, particularly in relation to how the pedagogical benefits and limitations of CALL tasks and software might be evaluated.

2.6 Criteria for evaluating the appropriateness of web conference-based collaborative tasks

This study aims to explore the best implementation of collaborative tasks in a web conferencing-based online environment and investigates its influence on learners' second language acquisition. A set of evaluation criteria is needed in order to justify the pedagogical benefits of the tasks designed and the software adopted in the current study. However, in the current literature, there is no consensus on evaluation principles for CALL tasks. While Chapelle (2001) has proposed criteria for CALL task appropriateness, these have been adopted and adapted by a number of CALL studies in the last two decades. Wang (2007), for instance, adjusted and employed Chapelle's (2001) evaluation principles in her study to examine learners' and teacher's oral-visual interaction via Internet-based desktop videoconferencing for language acquisition at a distance.

Drawing from the interaction approach and other considerations such as individual differences, for this study, six perspectives were taken into account using Chapelle's (2001) evaluation criteria in relation to CALL task appropriateness, including language learning potential, learner fit, meaning focus, authenticity, positive impact, and practicality (see table 2.3 below).

Criteria	Descriptions
Language-learning potential	The degree of opportunity represents beneficial focus on form.
Learner fit	The amount of opportunity for engagement with language under appropriate conditions given learner characteristics.
Meaning focus	To what extent the learners' attentions were paid towards the meaning of the language.
Authenticity	The degree of correspondence between the CALL activity and target language activities of interest to the learners outside the

	classroom.
Positive effect	The effectiveness of the CALL activity on those who participate in it.
Practicality	The adequacy of resources to support the use of the CALL activity.

Table 2.3 Chapelle's (2001) Criteria for CALL task appropriateness

Since Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks are more related to this study, her five criteria are discussed below in reference to Chapelle's (2001) six criteria.

Criteria	**Descriptions**
Practicality	The fit between the task and the capability of the video-conferencing tool(s) to support task completion.
Language learning potential	Two conditions: to what the extent learners' attention is drawn to the forms of the language while engaging in meaning- based tasks and learners' improvement in learning the target language.
Learner fit	The fit between learners' characteristics and the task's characteristics (e.g., the fit between the difficulty level of the tasks and the proficiency level of the learners).

Authenticity	The degree of correlation between the videoconferencing activities and target language activities of interest to learners outside the classroom.
Positive effects	The effectiveness of the videoconferencing tasks on those who participate in it (e.g., the impact of the video, the impact on learners' confidence in learning, etc.).

Table 2.4 Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks

Practicality

According to Chapelle (2001), practicality refers to the degree of easy implementation of a CALL task in a certain language teaching setting, including the availability of hardware and software, and the assistance offered by knowledgeable personnel to deal with any unforeseen issues. In Wang's (2007) criteria, practicality is the first step in making a decision for using a particular web-conferencing tool in a specific learning environment. The reason for this is that the technical capacities of software have direct impacts on the learners' task completion. In the category of practicality in Wang's criteria, user friendliness, video and audio quality, and other features of pedagogical value such as reliability and cost were also taken into consideration.

Language learning potential

Chapelle (2001) has noted that language learning potential should refer to "the extent to which the activity can be considered as a language learning activity rather than simply an opportunity for language use" (p. 55). Moreover, she has also differentiated language learning from language use as "the extent to which the task promotes a beneficial focus on form" (p. 55). In Wang's

(2007) criteria, aside from *focus on form*, learners' perceptions regarding their improvement of the target language was also taken into account.

Focus on form

It is well accepted that the notice of learners and their attention to linguistic form are important for second language acquisition (Robinson, 1995; Schmidt, 1990). Focus on form was defined by Long (1988) as learners' attention to form when they are engaging in meaningful tasks (see section 2.1 for more details). In the process of meaning-based task completion, certain conditions that can draw learners' attention to language form when interaction and communication break down due to unknown language forms and vocabularies are argued to be beneficial to their language learning.

The existing literature has shown that interactional modification may facilitate learners' SLA by temporarily drawing their attention to focus on form in meaning-based tasks (Long & Robinson, 1998). In this study, the incidences of interactional modification in learner–learner interaction were coded and analysed according to Varonis and Gass' model (see figure 2.4). In their study, they defined non-understanding routines as "exchanges in which there is some overt indication that understanding between participants has not been complete" (1985, p. 73).

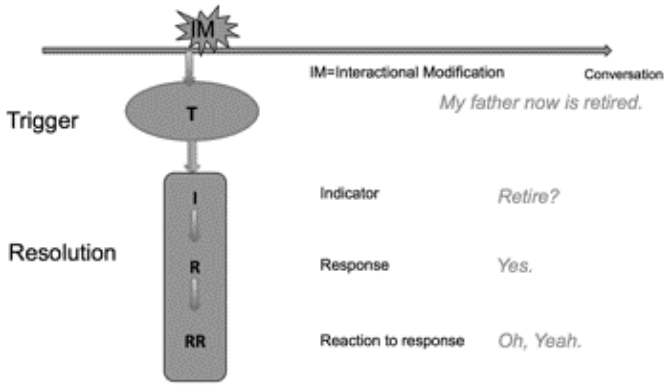


Figure 2.4 Varonis and Gass's (1985) model of negotiation for meaning (Adapted from Wang, 2006, example from Varonis & Gass, 1985)

Their model consists of two major phases: (1) a trigger and (2) a resolution. The trigger (T) refers to "an utterance or portion of an utterance on the part of the speaker which results in some indication of non-understanding on the part of the hearer" (Varonis & Gass, 1985, p. 74). The resolution encompasses three primes including an indicator (I), which is an utterance to signal the non-understanding and "push down" the conversation, and a response (R), which is the reaction to the indicator, "acknowledging the non-understanding in some way" (Varonis & Gass, 1985, p. 75). The last prime, the reaction to the response (RR), which is an optional unit, completes the routine. Comprehension checks can be found between the four primes.

In Wang's (2007) study, two types of breakdown were categorised: (1) a breakdown due to non-understanding, which was adopted from Varonis and Gass's (1985) study, and (2) a breakdown due to a request for new words.

Improvement in the target language

Wang (2007) added learners' improvement of using perceived language to her evaluation criteria for web-conferencing tools and tasks. Besides focus on form, learners' improvement in Chinese, particularly listening and speaking skills, and communicative competence, were the focal points in the task design process. Moreover, other aspects of Chinese language learning skills, such as writing and recognising Chinese characters, were also considered.

Since communicative competence is one of the key aspects of language learning (see Canale & Swain, 1981; Hymes, 1971; Sauro, 2011), whether tasks can promote learners' collaborative learning and achieve communication goals should also be taken into account in language learning potential. This was added in the evaluation criteria in the current study.

Learner fit

Learner fit refers to the fit between the characteristics of learners and tasks. Learners' characteristics include their language ability, proficiency, willingness to communicate, age, and learning style (Chapelle, 2001). Task characteristics refer to difficulty level, learners' engagement in the tasks, and whether the tasks allow learners to use a range of language structures that are suitable for their language proficiency (Skehan, 1998). In addition, from a sociocultural theory perspective, when deciding task difficulty level, instructors need to consider learners' zone of proximal development (ZPD). Tasks that are already known to the learners or beyond their grasp are not considered beneficial to language acquisition.

Authenticity

From the perspective of communicative L2 learning approach, authenticity reflects the correspondence between the L2 learning task and the tasks that learners possibly encounter in real life. Many scholars believe that engaging in authentic tasks is one of the best ways to master the target language. For instance, Egbert (2005) defined an authentic task as "one that learners perceive they will use outside of class in their real world or that parallels or replicates real functions beyond the classroom" (p. 6). As one of the conditions for optimal online language learning, authenticity has a significant impact on learners' engagement and willingness of participating in the tasks (Chapelle, 2001). Nunan (1993) found that applying authentic tasks had a positive influence in facilitating learners' meaningful interaction. Van den Branden (2006) has also suggested that "there should be a close link between the tasks performed by learners in the classroom and in the real world" (p. 6) which may encourage comprehensible output production and learners' engagement. In terms of authenticity in a web-conferencing-based environment, tasks can be relevant to students' lives or amended to foster their real-life communication skills.

Positive impact

According to Chapelle (2001), the notion of positive effects incorporates diversified improvements, beyond language learning potential, that learners may obtain from carrying out tasks. An ideal language class does not only teach language itself, but also helps learners to develop metacognitive skills (Oxford, 1990). What is more, it also enhances their interest in the target language and culture, and their pragmatic abilities (Chapelle, 2001). In this study, factors such as the effects of the multimodal environment and the influence in learners' confidence in learning are taken into considered.

Wang's (2007) evaluation criteria form the basis of the proposed criteria for evaluating meaning-based videoconferencing tasks. Wang's and Chapelle's evaluation criteria are different in a number of ways. Practicality is listed first to emphasise its importance. As Wang (2007) pointed out, practicality is "the precondition for task performance" (p. 593). Second, with regard to language learning potential, in addition to focus on form, she also took into account learners' improvement in the target language. Third, in contrast to Chapelle's (2001) criteria, which can be applied to all tasks in CALL, the scope of Wang's (2007) criteria has been narrowed down to evaluate meaning-based tasks in a videoconferencing-supported learning environment. Drawing on insights from their evaluation criteria, I propose evaluation principles for the specific research context of the current study, with the purpose of evaluating the usefulness of the web conferencing software Blackboard Collaborate, and the appropriateness of the collaborative tasks that were subsequently designed (see section 4.4).

2.7 Summary

This chapter contextualised the present study in the current literature and reviewed the research on task-based language teaching approaches, computer-assisted language learning, and the criteria for evaluating the appropriateness of meaning-focused tasks in CMC.

It started with a review of the research on theoretical foundations of task-based language teaching approach: the interaction approach to SLA and sociocultural theory. The interaction approach predicts that interaction has greater potential for language development than other activities without interaction. The interaction approach to second language acquisition posits that learners can benefit from taking part in interaction because of a variety of developmentally helpful opportunities, conditions, and processes to which they can be exposed through interaction. These include input, negotiation, output, feedback, and attention. Chapelle (2005) summarised the benefits of interactionist theories and argued that it can promote leaners "to direct their attention in useful ways to linguistic input" (p. 56). In the current research context, web conferencing-based discussions are inherently interactive and can provide learners with opportunities for exposure to input, to negotiate for meaning, and to notice the gap between their language output and the target language form, which can in turn lead to learners' second language acquisition. From the sociocultural theory's perspective, collaboration among peers enables optimal scaffolding that can develop learners' language abilities in completing a task. In the current study, learners' interaction was realised through a web conferencing platform, which provided multimodal interaction between learners and the teacher to facilitate their collaboration.

A review of TBLT followed with a definition of task, a typology of communication tasks, and a review of current task-based literature. By providing learners opportunities to use and faciltate their second language acquisition, TBLT instruction can assist learners in developing

communicatitve strategies and language accuracy. Pica et al (1993) proposed a task typology of communication tasks, and many SLA researchers have evaluated communicative language learning tasks based on it. According to their classification, jigsaw and information-gap tasks are conducive to the negotiation of meaning in the sense that both participants are required to request and supply information in order to arrive at a single solution collaboratively. Conversely, decision-making and opinion-exchange tasks seem to be less conducive to negotiation of meaning since interlocutors do not have a single convergent goal to achieve jointly, and do not need to negotiate to reach a correct answer. Research on face-to-face TBLT has shown that the authentic use of the target language through meaningful tasks enables linguistic skill building. It can promote spontaneous use of language through tasks as well as providing an opportunity to link the use of the target language to real-world activities.

Recently, the emergence of computer-mediated communication (CMC) has attracted many researchers' attention. Current studies have shown that synchronous CMC can contribute to facilitating learner-learner interaction, increasing equality of participation, enhancing language output, allowing more time to process responses, promoting the noticing of forms and gaps between learners' interlanguage and target language, and contributing to negotiation of meaning. Web conferencing, which combines multiple modes (such as text chat, audio, and video), is considered as one of the most effective tools for online language teaching (Hampel & Stickler, 2012; Satar, 2013; Stickler & Shi, 2013). Empirical studies have shown that the interplay of multiple modes may complement each other, compensate for their shortcomings, or be in competition with each other (Hampel & Stickler, 2012; Kozar, 2015a). At the same time, several disadvantages to using web conferencing were reported, which included technical issues such as time lag and audio delays (Wang, 2004), less equality of learners' participation without teacher

presence (Berglund, 2009), and students' reluctance in using webcam in teletandem sessions (Telles, 2010).

In the last section of this chapter, Chapelle's (2001) six criteria for CALL task appropriateness and Wang's (2007) criteria for evaluating meaning-focused web-conferencing tasks were discussed and used as the guidelines for the current study. Based on their evaluation principles, I propose criteria to evaluate the pedagogical benefits and limitations of Blackboard Collaborate and the collaborative tasks designed in the current study.

The following chapter will restate the purpose of the study and the research questions, and describe the research design, participants, and data collection procedures of the current study.

3 Chapter 3 Research Methodology

3.1 Introduction

The previous chapter provided a review of interactionist SLA theories, sociocultural theories, and the implications of TBLT in both face-to-face and CMC settings. It highlighted how little research has been undertaken to investigate the effect of collaborative tasks on learners' interaction in web conferencing environments. As a predominant aspect of language teaching practice, the evaluation of task design is a focal concern of this enquiry. This chapter therefore presents the research design and methodology in the current study.

The intention of this study was to explore the successful development and good implementation of task-based language teaching in a web conferencing-based online setting, particularly in a beginning online Chinese class. By conducting this empirical study, this chapter and those that follow will attempt to answer the main research question:

How can task-based language teaching (TBLT) be implemented in a web conferencing environment to facilitate learners' SLA?

This chapter discusses the research design and methodology of this study. This encompasses three main parts. Section 3.2 is an elaboration of the research methodology employed in this study, which included both action research and mixed methods approaches. This part details the development of the research design of the current study and the advantages and limitations of using mixed methods. Section 3.3 provides an overview of the research design, which consisted of two stages. It introduces the context of the study, including the objectives, the participants, the researcher's role, and the procedures. The last section of this chapter introduces the methods of

data analysis used in the two research stages, including the coding system in the first research cycle and the evaluation criteria for the collaborative task design and tools used in the second research cycle.

The first stage of this study aimed to investigate how learners and teachers adapt themselves to the synchronous multimodal environment. In particular, it focuses on how the learners and the teacher used the combined tools (e.g., video, audio, text chat, voting, raised-hand function, emoticons, and whiteboard) to communicate with each other. Issues and challenges in the empirical study were identified to answer the first subsidiary question:

How do teachers and students use multiple modes to communicate with each other in a task-based online class?

Moreover, in order to trial and preliminarily evaluate the tasks designed for collaborative language learning, learner-learner interactions in the web conferencing environment was examined to answer the second subsidiary question：

Do learners engage in negotiation in task completion in the web conferencing environment?

The study in the first stage was implemented to answer the first and second subsidiary questions. Although a predominantly qualitative approach was taken to generate in-depth interpretive data, quantitative methods were utilised to establish reliability and validity.

In the second stage, a more in-depth evaluation of the appropriateness of web conferencing-based collaborative tasks and web-conferencing tools was conducted with the aim of answering the third subsidiary question:

What are the pedagogical benefits and limitations of applying a web conferencing tool in a task-based introductory Chinese online class?

3.2 Methodology: mixed methods

This study employed mixed methods, which encompasses both qualitative and quantitative methods to answer sub-questions derived from the central research question (Creswell & Clark, 2007; Johnson & Onwuegbuzie, 2004; Lister, 2005; Ritchie, 2003).

Traditionally, one of the most well-known distinctions in research methodology is that between quantitative and qualitative research. Quantitative approaches are derived from positivist epistemology, in which it is believed that social observation should be treated objectively and can be expressed statistically. Therefore, it requires researchers to eliminate their personal bias and to focus on measurement and empirical justification (Johnson & Onwuegbuzie, 2004; Maxwell & Delaney, 2004). The strengths of quantitative approach are manifold. As Dörnyei (2007) summarises, "quantitative inquiry is systematic, rigorous, focused, and tightly controlled involving precise measurement and producing reliable and replicable data that is generalizable to other contexts" (p. 34).

On the other hand, qualitative purists focus on the phenomenological view, which emphasises constructivism, theory generalisation, and idealism (Johnson & Onwuegbuzie, 2004; Lincoln & Guba, 2000), such as "[a] real world setting [where] the researcher does not attempt to manipulate the phenomenon of interest" (Patton, 2002, p. 39).

A number of researchers have argued that the distinctions between qualitative and quantitative are not necessarily exclusive (Dörnyei, 2007, p. 24). For instance, Davies (1995) noted that the dichotomy of quantitative and qualitative research refers to a number of factors, such as the

ideology underlying the study, data collection, and analysis methods, rather than the mere use of statistical figures or non-quantitative data. Furthermore, Brown (2004) suggests that a more constructive approach is to view qualitative and quantitative research as a matter of degrees on a continuum rather than a clear-cut dichotomy.

Emerging from the above two approaches, mixed methods combine both quantitative and qualitative methods in the undertaking of data collection and analysis. Johnson and Onwuegbuzie (2004) define mixed methods as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (p. 17). Instead of constraining researchers' choices of research methods, mixed methods, as an expansive research approach, allows multiple ways for inquiry. Creswell and Clark (2007), in comparing qualitative and quantitative perspectives, suggest that " [q]uantitative research is weak in understanding the context", whereas "qualitative research is seen as deficient because of the personal interpretations made by the researcher, the ensuing bias created by this, and the difficulty in generalizing findings to a large group" (p. 6). Further, they outline a number of benefits in applying mixed methods:

- It provides strengths that offset the weakness of both quantitative and qualitative research;
- It provides more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone;
- It helps to answer questions that cannot be answered by qualitative or quantitative approaches alone;
- It encourages researchers to collaborate across with qualitative and quantitative researchers;
- It encourages the use of multiple worldviews or paradigms; and,

- It encourages researchers feel free to adopt all possible methods to address research problems (pp. 9-10).

Creswell and Plano Clark (2007) argue that when integrating multiple methodological approaches in the research design, the strengths of a certain approach may supplement the weakness of another. Meanwhile, compared to single method research, the results can provide more comprehensive and convincing results. Therefore, mixed methods have significant positive influence on strengthening the overall research design.

Chapelle (2007) suggests that Tashakkori and Teddlie's (2003) book, *Handbook of Mixed Methods in Social and Behavioural Research*, sheds light on why mixed methods should be applied in CALL study:

> An examination of recent social and behavioural research reveals that mixed methods are being used extensively to solve practical research problems. Most investigators using these methods have not been interested in delving deeply into the philosophical orientations that supposedly underlie the application of their research studies. This is why the paradigm wars that occurred during the 1970s, 1980s and early 1990s did not affect many of the researchers working with mixed methods; these authors were simply more interested in the research questions they were studying than in discussions of complex philosophical issues. (Tashakkori & Teddilie, 2003, cited in Chapelle, 2007, p. 38)

This study is an action research case study (see section 3.2.1), which aimed to design suitable tasks for a web conferencing-based online class and investigate its influence on learners' SLA. According to Burns (2005), practitioners may draw on both qualitative and quantitative methods in carrying out action research. It is not restricted in terms of research method selection.

In this study, qualitative and quantitative methods were employed to supplement and reinforce, which in turn would eliminate the weakness of using single research method. Although a predominantly qualitative approach was adopted in this study, content analysis, a quantitative analysis approach, was utilised in order to investigate the participants' multimodal interaction in the web conferencing environment. Silverman's (2001) defines content analysis as "establishing categories and then counting the number of instances when those categories are used" (p. 122). In this study, the frequency and instances of the participants' use of multiple modalities to make meaning are identified and presented in the data analysis chapter (chapter 5). Moreover, analysis of the quantitative data collected from the questionnaires are shown in section 5.2.1. Qualitative approaches applied in the study included interviews and discourse analysis (Hatch, 1978). The data collection methods will be discussed in section 3.4.

3.2.1 Action research

Different from traditional types of social science research, action research is known as an enquiry in which practitioners study their own practices. As "insider" researchers, action researchers place themselves in the context of the study (Kember, 1998; Mcniff & Whitehead, 2011; Reason & Bradbury, 2008).

The concept of action research was derived from social psychology (see, Lewin, 1948; Lewin, 1951) and is now increasingly prevalent in the area of language education (Nunan, 1992). Although there are a number of definitions, the most cited is that by Carr and Kemmis (1986, cited in Nunan, 2006). They state that "[a]ction research is simply a form of self-reflective enquiry undertaken by participants in order to improve the rationality and justice of their own

practices, their understanding of those practices and the situations in which the practices are carried out" (p. 162). Mills (2011) proposes that the benefits for educators to conduct action research are those of "gaining insight, developing reflective practice, effecting positive changes in the school environment (and educational practices in general), and improving student outcomes and the lives of those involved" (p. 8). According to Reason and Bradbury (2001) action research is "participative research, and all participative research must be action research" (p. 2).

Kemmis and McTaggart (1988) summarise three characteristics of educational action research as research that is:

- Carried out by classroom practitioners;
- Collaborative in nature; and
- Aimed at bringing about change.

Since the purpose of action research is to gain a better understanding of issues in the educational environment, it has to be undertaken by language instructors. However, the research-teacher link has been taken so seriously that little action research can be found in language teaching (Dörnyei, 2007). One of the reasons for this is that language teachers tend to lack research knowledge and the skills to conduct such an inquiry. As Nunan (2005) concluded, insufficient research knowledge and experience may lead to questionable results or affect research reliability and validity.

In the current study, the researcher is also the language teacher, who identified issues and problems in teaching practice. By applying an intervention, improvements can be made in certain educational contexts (Allwright & Bailey, 1991), Consequently, it is also a good solution

particularly when teachers may find others' research findings not applicable to their own teaching situation (Crookes, 1993). See section 3.3.4 for further details of the researcher's role.

Although many researchers have argued that collaboration is one of the key characteristics of action research (e.g., Cohen et al., 2003; Kemmis & McTaggart, 1982), Nunan (1992) claims that, in real practice, teachers may not be able to collaboratively do research with others for various reasons. Therefore, he believes that "[t]he work that such people carry out should not necessarily be excluded as action research" (p. 18). In this research, I acted as both the solo researcher and the only teacher who conducted the online sessions with the participants. An action research approach was adopted to evaluate the web conferencing tool selected and the collaborative tasks that were designed.

Another significant feature of action research is that it leads to improvement in teaching practice. It helps to fill the gap between theory and practice (Johnson, 2012). Moreover, it enables practitioners to apply research results directly in their classrooms (Henson, 1996). The desired outcome of this study was to develop a task design framework for a web conferencing-based language learning environment and to evaluate the appropriateness of software and collaborative tasks designed. In section 3.3, the two cycles of action research are discussed in further detail.

3.2.2 Case study

A case study approach was adopted in the current study and employed as the overarching methodological paradigm. Using the Chinese online sessions offered at Macquarie University[1] as

1 Macquarie University is a public research university based in Sydney, Australia. www.mq.edu.au

a case study, the contributions and implications of the results were generalised, to establish a task-based language-teaching framework that can be applied in web conferencing environments.

According to Yin (2009), case study is an empirical inquiry that "investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 21), and one in which "multiple sources of evidence are used" (p. 23). The notion of "case" has come under some discussion. Yin's (2009) definition establishes the key feature of case: it is a phenomenon in a real-life context, as opposed to laboratory environments. Miles and Huberman (1994) describe case as "a phenomenon of some sort occurring in a bounded context" (p. 25). Further, they acknowledge case as the focus of the study. However, there is a "somewhat indeterminate boundary defining the edge of the case: what will not be studied" (p. 25). In this study, I used the web conferencing-based online Chinese tutorials at Macquarie University as a case to investigate the participants' studying experience with the software, Blackboard Collaborate, and the collaborative tasks that were designed. As Van Lier (2005, cited in Dörnyei, 2007, p. 154) argues, "an area which is currently much in need of case study research is the role of technology in SLA, for example, CALL".

When and where to conduct case study and what is the difference between case study and an experiment? As Yin (2014) points out, research questions, such as "how" and "why" questions, are most likely to be answered by a case study, history, or experiment. However, these three research methods are varied in terms of extent of control. Case study is different from experimental research, which focuses on research design manipulation, in that contemporary phenomena is examined in a natural setting. Moreover, case studies are strongly context-related and place emphasis upon specific learners' or groups' changes over a certain period of time (van

Lier, 2005). The focus of the current study was on how the interventions—the tasks and the online web conferencing-based environment—influenced learners' SLA. Considering the small case study sample, the emphasis of the study was on the process rather than the outcome (Patton, 2002).

In order to improve construct validity of case studies, multiple sources of evidence are generally recommended (Yin, 2014, p. 45). In Yin's book, six data collection methods are identified for case study, including:

- Documentation, such as letters, agendas, administrative documents, formal studies, or news;
- Archival records, such as public use files, service records, survey data produced by others, etc.;
- Interviews, both structured and unstructured;
- Direct observation ranging from formal to casual;
- Participants' observations within a fieldwork situation; and,
- Physical artefacts, such as technological devices, instruments or tools, etc.

Due to the nature of case studies, involving extensive descriptions of complex social phenomena, they typically fall under the umbrella of qualitative research. However, case studies actually encompass both qualitative and quantitative research methods (Verschuren, 2003). Dörnyei (2007) states that "the case study is not a specific technique but rather a method of collecting and organizing data so as to maximize our understanding of the unitary character of the social being or object studied" (p. 152). This study is a small-scale case study in which methodological triangulation was adopted and is described as follows.

As one of the most commonly used approaches to mixed methods, triangulation design has drawn attention from various disciplines. Cohen and Manion (2000) define it as an “attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint” (p. 254). It helps to “obtain different but complementary data on the same topic” (Morse, 1991, p. 122, cited in Creswell & Clark, 2007, p. 62), which contributes to strengthening the validity and credibility of qualitative research design (Mathison, 1988; O'Donoghue & Punch, 2003). Four different types of triangulation have been identified, including theoretical triangulation (the analyses of one set of data from different perspectives), investigator triangulation (the collection of data from multiple observers or researchers), methodological triangulation (applying different research methods to gather data), and data triangulation (analysing multiple data sources to reach a conclusion). In the current study, as discussed previously, methodological triangulation was employed. For further details about data collection methods, see section 3.3.

In Yin’s (2014) book, he proposed four principles of data collection in case studies, including:

- The use of multiple sources of evidence.

Single source of evidence is not recommended in case studies. As Yin (2014) argues, “a major strength of case study data collection is the opportunities to use many different sources of evidence” (p. 119). Method triangulation is employed in this study to improve construct validity and to secure the trustworthiness of the case study.

- The creation of a case study database.

Two sets of documentation are commonly collected in case studies: “the data or evidentiary base and the researcher’s report” (Yin, 2014, p. 123). A researcher’s report helps to create the context

and record data collection sequence, which in turns enables readers to understand the background and research results (Gillham, 2000).

- The maintenance of a chain of evidence.

In order to increase the reliability of a case study, it is necessary to keep a chain of evidence. Since this study employed both action research and case study, I kept personal notes after every online session. There are two aims for this: firstly, it allowed me to keep a research log from the perspective of an inner observer; secondly, it enabled me to track the changes and shed light on task design, which was required for the next cycle.

- The exercising of care when using data from electronic sources.

All the data collected in this study were collected and sorted as electronic sources (see section 3.3 for data collection and section 3.5 for ethics clearance).

The following section provides an overview of the research design. The first and second action research cycle, including objectives, participants, procedures, and data collection methods, will be discussed. I will then address the central role of the researcher in this study.

3.3 Overview of the research design

3.3.1 Action research process/cycle

Kemmis and McTaggart (1988) coin the action research process as an “action research spiral”, which has four steps in each loop: plan, action, observation/monitor, and reflection/evaluation (see Figure 3.1). It begins with a practitioners’ identification of concerns/puzzles in a classroom-teaching environment. He/she may then make an initial plan, conduct an intervention, and observe the outcomes. After evaluating preliminary results, researchers may form assumptions or hypotheses based on data collected in the first cycle. Throughout the second round of

intervention and data collection, practitioners are able to evaluate the influence of an action. Mcniff and Whitehead (2011) summarise the cycle of action research as follows: observe-reflect-act-evaluate-modify (p. 42).

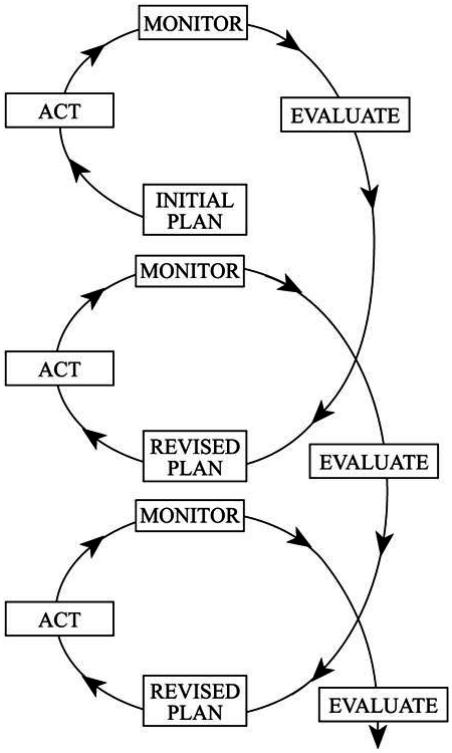


Figure 3.1 A cycle of action-reflection protocol (Kemmis, 1983)

In this study, action research was utilised as the method of inquiry, with the aim of making improvements in the teaching practice. The initiative point of this inquiry was derived from a real problem that needed to be addressed in teaching practice: that is, the lack of listening, speaking, and communicative practice in class. All the tasks in this study were designed to facilitate learners' communicative competence and collaborative learning. In the first cycle, two collaborative tasked were designed and conducted. The data was collected from learners' online interactions and their language output during the process of task completion.

3.3.2 First action research cycle

Objectives

The first cycle was conducted during May 2013 to acclimatise the researcher and the students to the web conferencing tool, Blackboard Collaborate, and the collaborative tasks that had been designed. The purpose was to investigate how the participants utilised the multimodalities to communicate with each other in the two given tasks (one information-gap and one jigsaw). Moreover, due to the close relationship between negotiation of meaning and language learning (see section 2.1.2), learner-learner interaction was analysed to examine whether the learners engaged in negotiation of meaning in the completion of tasks in the web conferencing environment. The results drawn from the first cycle provided pedagogical insights into task selection and design in second cycle.

In the integrated multimodal environment, there are a variety of choices available from which students can choose to make meaning or share information (e.g., the application share or web tour to view a website or application, or video/audio for verbal discussion). Participants can "choose the most apt forms […] for the representation of [their] meanings (Kress, 2000, p. 155). They can select from using one mode to communicate with peers, or integrate multiple modes to revise or modify their language production (e.g., they can use video, audio, and text chat at the same time to accomplish their tasks in breakout rooms). However, as Hampel and Stickler (2012) point out, "there is a lack of research that examines the impact of th[e] combined use of interaction and analyses multimodal communication in an online language classroom" (p. 119). This study aimed to fill the gap by exploring teachers and learners' interaction in the web conferencing environment to reveal how they adapt themselves in the multimodal environment to make meaning.

Participants

There were 67 on-campus students enrolled in a 13-week beginner Chinese course. Eight of them, aged 18 to 21, voluntarily participated in the current study. Two 60-minute online sessions were conducted in Weeks 9 and 11 of the semester. In the two online sessions, the participants were asked to carry out the interactive tasks in dyads (an information-gap task in Week 9) and triads (a jigsaw task in Week 11).

None of the participants had prior knowledge of Chinese before they enrolled in this subject and all of them were native speakers of English. In order to familiarise both the tutor and the students with Blackboard Collaborate, one face-to-face training session (in Week 4) and one trial session (in Week 7) were conducted prior to the beginning of this study. In the training session, the teacher introduced and showed the web conferencing tool to the participants. Later, in the trial session, the students and the teacher conducted an online session, including pre- and post-task activities and the students were sent to the breakout rooms to complete a short task (see Table 3.1). All eight participants attended both online sessions and all of them attended the training session except Student 5.

Procedure: Research time frame and events

In Semester 1, 2013, during March to May, the researcher participated in a four-week training course on how to use Blackboard Collaborate. During this time, the ethics application for the current study was prepared and submitted to Macquarie University Human Research Ethics Committee (HREC) in April. In week 4, all students of CHN104 Introductory Chinese 1 were introduced to Blackboard Collaborate during class, and they were invited to attend a one-hour online training session to familiarise themselves with the interface and basic features of the conferencing tool. Following this, in week 7, another online session was conducted with those

students who were interested in participating in to ensure they could become accustomed to the multimodal environment. After gaining ethics approval, two one-hour online sessions were conducted by the researcher and the volunteer participants in weeks 9 and 11 (May). The data collection procedure is summarised in Table 3.1.

	0	**1**	**2**	**3**	
Phase	Preparation	Training session	Two online sessions in week 4 and 7	Post-session	
Duration	3 months (March-May)	1 hour online in week 4 (May)	One hour each in week 9 and 11 (June)	5 mins	20 mins
Activity	Staff training & Ethics application	Introduce the interface of Bb Collaborate to	Students conducted one jigsaw and one information-gap task each time	Post-session questionnaire	Post-session individual interview

Table 3.1 Summary of data collection in the first stage

Data collection

In this stage, methodological triangulation was adopted to collect both quantitative and qualitative data. Mackey and Gass (2005) highlight the importance of "using multiple methods and techniques" (p. 196) in classroom research. Moreover, Nunan (2005) states that "[c]lassroom researchers appear to be increasingly reluctant to restrict themselves to a single data collection technique, or even a single research paradigm" (p. 237). As discussed in section 3.2, methodological triangulation was employed to increase the construct validity of this study.

In the first action research cycle, methodological triangulation was implemented in data collection. On the one hand, quantitative data was collected through post-trial questionnaires. The transcriptions of the two online session recordings were statistically analysed to gain insights into turn taking, video and audio dominance, use of text chat, and the teacher and learners' multimodal participation (use of emoticons, voting polling, and raise-up hand). On the other hand, learners' spoken interaction in pairs or small groups were transcribed and analysed by discourse analysis to identify instances of negotiation of meaning (see section 5.2.2). In-depth interviews were also conducted to complement the conclusions drawn from the qualitative and quantitative analysis.

The data in the first cycle were derived from three major sources: (1) archival recording of two online sessions gathered by Blackboard Collaborate's recording functionality, supplemented with screen video recorder (screenflow); (2) post-trial individual interviews after the end of the course; and, (3) post-trial online survey.

a) Web conferencing archive collections

As the main data collection instrument in the current study, the online sessions were recorded and transcribed for the purpose of multimodal analysis (e.g., Baldry & Thibault, 2006). Moreover, learner-learner interaction in breakout rooms was recorded for the purpose of discourse analysis to identify any instances of negotiation of meaning. The two one-hour sessions were recorded with the aid of Blackboard Collaborate's own recording functionality with the purpose of capturing both learners' and the tutor's use of multiple modes to communicate with each other. Since learners' interaction in the breakout rooms cannot be recorded by Blackboard Collaborate, an additional screen capture recording application (Screenflow) was used to produce a digitised video-audio recording of the students' activities in

the main room and the breakout rooms (see section 5.2.1 for the multimodal analysis of the transcriptions).

b) Post-trial questionnaires

Brown (2001) gave the definition of questionnaires as "any written instruments that present respondents with a series of questions or statements to which they are react either by writing out their answers on selecting them among existing answers" (p. 6).

After two online sessions, students were asked to complete a post-trial survey to collect demographic data (see Appendix A). Different types of questions were employed in the post-trial questionnaire, including: five-point Likert scale questions, fill-ins, short answers, and prioritising from a list. This survey aimed to gather the participants' opinion in terms of the usefulness of Blackboard Collaborate, task preference, implementing experience, and resulting attitudes (see section 5.2.1 for questionnaire analysis).

c) Post-trial interviews

The reason for choosing interviews was because it allows researchers to obtain data that cannot be observed (Merriam, 1990). Creswell (2014) points out that throughout interviews "participants can provide historical information" (p. 191). In the first stage, semi-structured interviews were conducted following the post-trial questionnaires. Semi-structured interviews, due to their flexibility, have been massively applied in Second Language studies (Mackey & Gass, 2005), especially "those working within an interpretive research tradition" (Nunan, 1992, p. 149). In terms of interview techniques, Nunan (1992) suggests identifying questions regarding topics and issues rather than listing a number of questions. When conducting the interviews, question prompts were used to obtain "depth, detail, vividness, richness and nuance" (Rubin &

Rubin, 2005, p. 129) in participants' answers regarding their learning experiences in the online environments.

3.3.3 Second action research cycle

Objectives

After the first cycle of action research, both the students and the researchers were familiar with the technological environment and task-based teaching process. In the second stage, more online tasks were designed and conducted with different participants. The proposed criteria for appropriateness of collaborative tasks and web conferencing tools (see section 4.5) were implemented. The results illustrate the potential technological benefits and limitations of Blackboard Collaborate in online Chinese teaching practice and the pedagogical values of the collaborative tasks designed. Further, it may pave the way for online Chinese teaching program development in the future at Macquarie University.

Participants

In the second semester (from August to November), 2013, 20 on-campus students who were enrolled in CHN105 Introductory Chinese 2 expressed their willingness to participate in this study. Throughout all the five online sessions, due to illness and other unforeseen circumstances, only 16 of them completed all sessions, interviews, and surveys. Four of them (St1-St4) had also participated in the first cycle. St 9 attended one online session in the first stage as well. The participants, aged from 18 to 22, included 5 males and 3 females, and were all English native speakers except St 12, a Korean female student. They had been studying Chinese at Macquarie University for one semester prior to the second stage. Like the participants in the first cycle, none of them had prior knowledge of Chinese before their enrolment.

Procedure

In this study, five 60-minute online sessions were conducted in weeks 2, 4, 6, 10, and 12 of the semester. Before the online session started, one 20-minute training session was conducted with all participants and other students in a computer lab. All the students used a PC and a headset to join the online training session via the link sent to their student email addresses. In the hands-on session, the researcher illustrated the basic function of Blackboard Collaborate (see section 4.2). Following that, simple interactive tasks were assigned to students to complete in pairs in breakout rooms. In a face-to-face training session, the students reported any technical issues they encountered in real online sessions. The researcher was also able to observe learners' interactions and reactions in the online sessions.

Data Collection

In order to answer the research questions in the second stage, three types of data resources were employed, including web conferencing archive collections, post-session interviews, and pre/post session questionnaires. I will discuss how the three methods were analysed in Chapter 6.

Guided by the evaluation criteria for web conferencing tools and tasks outlined in section 4.5, the second cycle concentrated on the technological capacities of the web conferencing tool, Blackboard Collaborate, and the pedagogical value of the five tasks. Following Wang's (2008, p. 93) study, learners' experience of using the software, in terms of user-friendliness, video and audio quality, other features of pedagogical value, and reliability, was gathered using the research instruments, including web-conferencing archive collections, pre/post-session questionnaire and post-session interviews. The pedagogical value of the collaborative tasks designed were determined according to the following aspects:

1. Language learning potential:

- Do task conditions present sufficient opportunity for beneficial focus on forms and meanings?
- Do task conditions and design provide an appropriate environment that is conducive to learners' collaborative learning?
- Has the learner's target language communicative competence been improved?

2. Learner fit:

- Is the difficulty level of the targeted linguistic forms appropriate for the learner to increase their language ability?
- Are there enough opportunities for learners to engage in collaborative tasks as they expected?

3. Authenticity:

- Is there a strong correspondence between the task and second language tasks of interest to learners outside the classroom?
- Are learners able to see the connection between the videoconferencing tasks and tasks outside the classroom?

4. Positive impact:

- Do learners have a positive learning experience with collaborative interaction via videoconferencing?
- Are the learner's confidence improved through the use of the tasks? (see section 4.5 for more details)

a) Web conferencing archive collections

Similar to the first stage, all the five online sessions were recorded using Blackboard Collaborate and Screenflow in order to capture learners' interaction in both the main room and breakout rooms (see section 4.2 for further details). In the first cycle, the recordings served as the source

of participants' multimodal interaction analysis. In the second stage, I examined the learner-learner interaction in the process of task completion in further detail that took place in the breakout rooms. Learners' linguistic productions were transcribed for the purpose of discourse analysis (see section 3.4).

b) Post-session interviews

As discussed in section 3.2, in-depth interviews were carried out after the completion of the fifth online session. The interview questions consisted of open-ended questions (see Appendix E). Dörnyei (2007) distinguishes interviews into: structured interviews, unstructured interviews, and semi-structured interviews. He points out that semi-structured interviews provide "guidance and direction […], but also keen to follow up interesting developments and to let the interviewee elaborate on certain issues" (p. 136). In the interviews, relevance materials, such as the screenshot of the online sessions and task descriptions, were provided to the interviewees to help them recall the previous tasks conducted throughout the semester. All the interviews were recorded using a digital recorder and transcribed by the researcher (see section for ethical considerations).

c) Pre and post session survey

Pre- and post-session surveys were carried out prior to the first and immediately after the last online session. The pre-session survey was used to collect participants' age, sex, information and communications technology (ICT) knowledge, and their expectations of online activities (see Appendix C). A post-session survey was sent to participants after completion of all five online sessions to obtain their feedback (see Appendix D). Questions in the post-session surveys were designed based on the proposed evaluation criteria for web conferencing tools and tasks (see

section 4.5). The aim of the post-session survey was to evaluate the appropriateness and affordances of the videoconferencing tool and the tasks applied in online sessions.

3.3.4 Researcher's role

Similar to other qualitative research, the central role of researchers and his/her reflection and interpretation of results is a significant feature of action research. Dörnyei (2007) points out that "qualitative researchers strive to view social phenomena from the perspectives of the 'insiders' and the term 'insider perspective has [a] special place in the qualitative credo" (p. 38).

Unlike other research investigations, action research requires researchers to actively participate in the research process. Stringer (2007) describes action researchers as "facilitator, associate and consultant", rather than "director, chief or head" (p. 20).

In this study, I acted as both research practitioner and language instructor. Firstly, I identified in my teaching practice that the lack of listening and speaking practice in class affects learners' Chinese language learning. By introducing the web conferencing tool Blackboard Collaborate and designing collaborative tasks, I assumed that it might have a positive influence on learners' interaction, which in turn would facilitate their SLA. Throughout the two action research cycles, I used different approaches to collect data to examine the influence of the intervention. On the other hand, as a language instructor, it enabled me to observe and participate in the study with the students, which helped me to identify technical problems, issues in research and task design. The convenience as both the researcher and teachers meant that I was close in the field and to the participants. As Richards (2003) describes, "[m]ost […]teachers are natural researchers. We're used to working out the needs of our students, evaluating the effects of particular approaches, spotting things that work or don't work and adjusting our teaching accordingly. Very few

teachers approach their work mechanically and nearly all of us reflect on what we do in the classroom" (p. 232).

3.4 Methods of data analysis in the two cycles

Different criteria were applied in the two action research cycles to evaluate the results of the intervention. Following data collection, transcriptions of the in-depth interviews and recordings of the online sessions were undertaken by the researcher. This section will take a closer look at the analysis process of the data collected.

3.4.1 Coding and analysis in the first cycle

The first cycle, as discussed in section 3.3.2, mainly focused on the participants' multimodal interaction in the main room and learner-learner interaction in the breakout rooms.

1) Multimodal interaction analysis

The recordings of the two online sessions were gathered by Blackboard Collaborates' in-built recording functionality, supplemented with another screen video recorder (Screenflow). I used Inqscribe to transcribe all the recordings. The multimodal transcriptions followed the transcription convention as developed in previous studies (Hampel & Stickler, 2012; Stickler et al., 2004; Stickler & Shi, 2013). The multimodal transcriptions contained the following items: turns, time stamp, participants, audio (Pinyin), audio (English translation), audio (Chinese characters), video activities, Whiteboard actions, Text chat, spatial movement, notes (technical issues, feedback menu), Timer, and announcement. An example of an excerpt is shown in Figure 3.2. Section 5.2.1 presents the results of the participants' multimodal interaction analysis.

1	Participants	Audio	Audio (English translation)	Audio (Chinese translation)	Video activity	Whiteboard actions	Textchat	Spatial movement	Notes	Timer & Announcement
45	St 1	wo3 jiao4 Tim, Wo3 de shenglri4 shi4 shi2er4 yue4 shi2jiu3 hao4.	My name is Tim, My birthday is 19th,Dec	我叫Tim，我的生日是十二月十九号						
46	Tut	Hi, Ni3men hao3, I was thinking maybe we can use the text rather than drawing the characters. That would be						joined room 6		
47	St 1	I tried that, but it didn't work well as I thought it would be.								
48	Tut	really? The no. 4 on the tool bar.								
49	St 1	St 1: Yeah, but I couldn't type it. Yeah, I got it.				Typed on WB				
50	Tut	good. That would be more tidy.								
51	St 1	That is very much more tidy. Ok.								
52	Tut	That's it. Excellent. Ok, let me know if you have any questions.								
53	St 1	Ok, cool. Ok Birth of place, where was I born. Wo3 zai4 xianglgang3 chulshengl. E.m , Wo3 shi4 Mai4ke4li3 da4xue2 de xue2sheng. Right, How do I get the rabish that I typed?	I was born in HK. I'm a student of MQ	我在香港出生，我是麦克利大学的学生		Typed on WB				

Figure 3.2 Sample excerpt of multimodal analysis

2) Discourse analysis

As discussed in section 2.1.2, negotiation of meaning plays a key role in learners' SLA. Following other researchers, for example, Blake (2000), Simth (2003a), Fernández-García and Martínez-Arbelaiz (2002), and Wang (2008), Varonis and Gass's (1985) model was utilised in this study to identify any incidences of negotiation of meaning during the process of task completion—that is, learner-learner interaction in the breakout rooms.

In Nunan's (1992) words, discourse analysis "analyses classroom discourse in linguistic terms through the study of classroom transcripts which typically assign utterances to predetermined categories" (p. 3).

According to Chapelle's (2001) criteria for CALL task appropriateness and Wang's (2008) criteria for evaluating meaning-focused videoconferencing tasks (see section 4.5), whether tasks can provide sufficient opportunities for beneficial focus on form is in the category of language learning potential. Interactionist theory suggests that negation of meaning may take place when difficulties in communication arise (Ellis, 1999; Pica, 1994). In the negotiation of meaning process, learners tend to modify their interaction to solve any communication breakdown, which in turn is beneficial to their SLA (Pica et al., 1993; Varonis & Gass, 1985).

In this study, any incidences of interactional modification in learner-learner interaction were coded and analysed using Varonis and Gass's model (see Figure 3.3). In their model, the oral discourse moves in a linar fashion, which is represented by a horizontal line. Any instances of non-understanding in the conversation can be resolved by the modified interaction through the vertical sequence and, in doing so, the breakdown can be fixed and the conversation can return to the horizontal conversation progression.

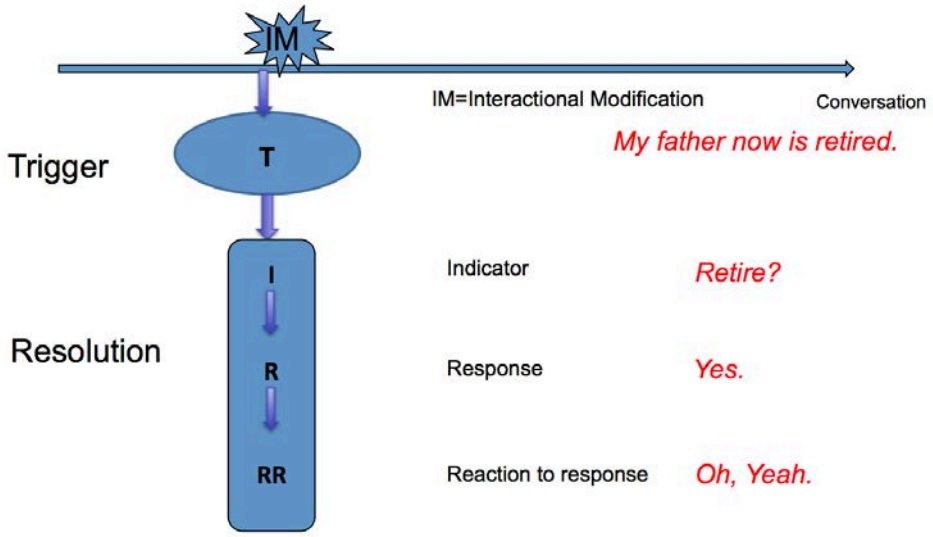


Figure 3.3 Varonis and Gass's (1985) model of negotiation for meaning (Adapted from Wang, 2006, example from Varonis and Gass (1985)

Their model consists two major phases: (1) a trigger and (2) a resolution. The trigger (T) refers to "an utterance or portion of an utterance on the part of the speaker which results in some indication of non-understanding on the part of the hearer" (Varonis and Gass, 1985, p. 74). The resolution encompasses three primes, including an indicator (I), which is an utterance to signal the non-understanding and "push down" the conversation; and a response (R), which is the

reaction to the indicator, “acknowledging the non-understanding in some way” (p. 75). The last prime is the reaction to the response (RR), which is an optional unit.

In Wang’s (2008) study, two types of breakdown are categorised: (1) a breakdown due to non-understanding, which was adopted from Varonis and Gass’s (1985) study; and (2) a breakdown due to a request for new words. In the current data, both types were found and more examples of impasses due to a request for new expressions were also been identified.

An example of non-understanding (in the second online task)

St 3: 这套红色的西服也很漂亮。

[These red suits are pretty as well.]

St 9 再说一遍.

[Say it again?]

St 3: 这套红色的西服也很漂亮，帅。

[These red suits are pretty, handsome as well.]

St 9： Yeah, I got that.

An example of request for new expressions (in the second online task)

St 10: 你好[hello] how can I help you? Do you guys know how do you say that?

St 2: 有什么可以帮您？

[How can I help you?]

St 10: Can you type it up? I can't hear it.

St 2: 你好，有什么可以帮您?

[Hello, how can I help you?] (*Repeating and typing on the whiteboard*).

3.4.2 Evaluation criteria of collaborative tasks design and tools in the second cycle

In the study, Chapelle's (2001) six criteria for CALL tasks appropriateness and Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks have been used as guidelines for evaluation. The criteria for evaluating web conferencing tools and collaborative tasks in the current study are discussed in section 4.5.

3.5 Ethical clearance

This study was conducted with approval, having met the requirements of the Macquarie University Human Ethics Committee. In both stages of this study, all the participants were informed via the information and consent form. They returned their signed forms if they agreed to participate in this study. The participants were informed that their activities in the online sessions would be recorded and transcribed for teaching and research purposes. The questionnaires in this study were conducted anonymously online and students' names were changed in the transcripts to protect their privacy. The students had the right to withdraw at any time during or after the project. No financial or academic benefits were derived from their participation in the study. Since the researcher was also the participants' teacher, cross-marking was conducted by the researcher and other tutors to exclude real or potential bias and any interference with student academic progress or assessment results.

3.6 Assumptions and Limitations

I am aware of the limitations of this study. First of all, the data was collected from a small cohort. When the study was conducted, the home institution, Macquarie University, was trialling the software Blackboard Collaborate. Limited technical training and support was offered to both the participants and the researcher. In the first semester of 2013, eight students voluntarily participated in the first cycle of study. In the second stage, 20 students showed their willingness to participate in the project but only 14 of them completed all five online sessions and data collection process. Duff (2006) claims that given that qualitative practice can contribute to providing in-depth insights into a phenomenon, the conditions and results may not be applied in other settings. Yates (2003) also warns the small sample size may lead to "potential over-reading" of the research results (p. 224). However, as Chapelle argues many times (see, Chapelle, 2014a; Jamieson et al., 2005), evaluation is context-specific, which is about "to what extent a particular type of CALL material can be argued to be appropriate for a given group of learning at a given point in time" (p. 2). The conclusions and implications drawn from this small-scale case study may be different in other environments.

Secondly, all the participants in the current study were campus-based students, which may differ from the results of distance learners in various ways. For instance, they did not consider visual communication as an important aspect of online sessions, even though they appreciated the presence of the teacher. However, oral and visual communication is considered vital for distance language education (See Wang, 2008). Therefore, we assume that external students would be inclined to use the video function. Further studies should investigate a comparison of results of online tutorials for on-campus students and distance students.

3.7 Summary

This chapter focuses on the research design and methodological considerations of the study. In order to answer the main research question, how to implement task-based language teaching (TBLT) approach in a web conferencing environment to facilitate learners' SLA, two cycles of action research were conducted. In the first stage, two online sessions were conducted with the purpose of acclimatising the researcher and the students to the software and the collaborative tasks. The aim of the first stage was to investigate how the participants utilised the multimodalities to communicate with each other in the certain online environment. Moreover, learner-learner interaction was analysed to examine whether learners engaged in negotiation of meaning in the completion of tasks in the web conferencing environment. In the second stage, I utilised the criteria that was proposed (see section 4.5) to evaluate the practicality of the web-conferencing tool and the five online tasks that were designed for the study. Mixed methods, which incorporate both quantitative and qualitative approaches, were adopted to seek answers to the sub-research questions. In the next chapter, I delineate the context of the study, including not only the target software used but also the realisation of task design framework in practice. An articulation of the evaluation criteria for the appropriateness of web conferencing tools and collaborative tasks is presented in Chapter 4 as well.

4 Chapter 4 Context of the study, task design framework, and evaluation criteria

4.1 Introduction

This chapter discusses the context of the study, which consisted of two main phases: the first research stage, in which the web conferencing tool-Blackboard Collaborate was trialled by the researcher and a group of volunteers; the second research stage, which focuseed on the evaluation of the technological capabilities and appropriateness of the tasks designed. Section 4.2 presents the functionalities of web conferencing tool used in the study, Blackboard Collaborate. In section 4.3 I will elaborate on the task framework adopted in this study. Since task design is the focal point of this study, the realisation of task framework, task type typology, justification of task selection, and implementation of task sequence in the present study are introduced in detail. The tasks designed in the two research cycles will be presented in section 4.4. Evaluation criteria for web conferencing tools and the collaborative tasks proposed and applied in this study are discussed in section 4.5. In section 4.6, I will describe the staff collaboration of the project.

4.2 Research Facilitation Software and task design

4.2.1 Investigation of the web conferencing tool, Blackboard Collaborate

In the current literature, it has been shown that audio/video or web-based conferencing tools have significant potential in facilitating oral-visual interaction in foreign language learning at a distance (e.g., Anastasiades et al., 2010; Christine Develotte et al., 2010; Hampel & Stickler, 2012; Stockwell, 2007; Wang, 2008). The web conferencing tool used in the study was Blackboard Collaborate (see Figure 4.1), which enables synchronous video and audio interaction

between the teacher and the participants. As an education-focused platform, Blackboard Collaborate provides a wide spectrum of collaboration as follow:

Figure 4.1 the screenshot of Blackboard Collaborate session

3) Audio & Video panel

It enables users to participate in conversations either using a microphone and speakers (or headset) or via teleconference. During the sessions, Blackboard Collaborate has the capacity to show up to six video cameras transmissions simultaneously, as well as the audio channel. When there are multiple cameras being used as the same time, the video stream of one user will appear in the primary video display. Usually, if there is one who is using the audio channel, others' transmission will appear in thumbnails (see figure 4.1)

4) Participant Panel (polling, raise-hand, and emoticons)

The Participant Panel provides the status information of the entire participants. Participants can use it to review the profile picture of others' or edit their own. It also shows what features that the participants are currently using. The moderator, which is usually the session instructor, can give or take away the participants' permissions of using the tools (such as audio, video, whiteboard, etc.).

The primary component of the Participant Panel is the Feedback menu (see Figure 4.2), which contains four useful buttons: the emoticons, the step away button, the raise-hand button, and the polling response menu.

During the session, the participants can raise up their hand at any time. It comes with an audio indication and a number in the participant list showing who has raised their hand and in what order. The step-away button can be used to indicate if any participants are temporarily unavailable. The instructor can use the polling/voting button to check the students' responses. It has yes/no or multiple-choice responses.

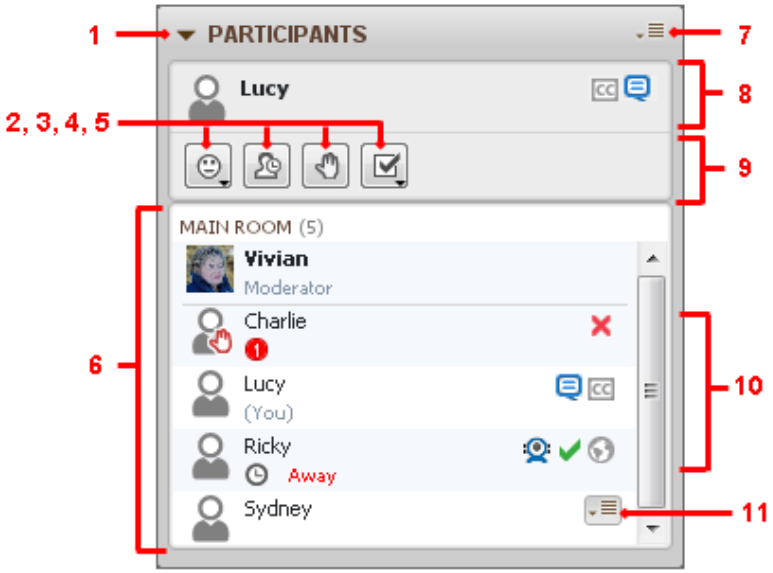


Figure 4.2 The Participant Panel (Collaborate, 2012, P. 32)

5) Text Chat

This feature allows participants to send public text messages to the entire audiences or to privately chat with particular a person.

6) Whiteboard

As shown in Figure 4.1, the content area consists of three major functionalities, including the whiteboard, application sharing, and web tour.

The instructor can use the Whiteboard to upload slides. The participants can use the tools on the left to create or manipulate objects on the slides. As shown in Figure 4.1, the participants were working on drag and drops, which were implemented frequently in warm-up activities to rearrange words and form sentences in the correct order.

7) Web Tour

The Web Tour enables participants to share one web browser with each other in the session. However, due to its instability, it was not used in the online sessions in the current study.

8) Application Share

The Application Share allows applications on one computer to be seen by all the attendees. Similarly to the Web Tour, application share did not be applied in this study.

9) The Main room and Breakout rooms

The Main room is the workplace, which is public and accessible to all the session participants, while the breakout rooms are the virtual rooms created by the moderator (usually the teacher).

The participants can do pair work or small group work in breakout rooms which can be accessed by the moderator during the session.

In order to determine the affordance of Blackboard Collaborate in promoting collaborative learning, comparisons with Flashmeeting and Skype (free and paid version) were conducted. Flashmeeting is a web-conferencing system designed by Open University. Blackboard Collaborate and Flashmeeting both fall under the category of web-conferencing. Skype is a popular desktop videoconferencing software. It can be seen from Table 4.1 that, compared to the other two conferencing tools, Blackboard Collaborate has various features that support collaborative learning at a distance.

	Web-conferencing tools		**Desktop videoconferencing tools**	
Name	Blackboard Collaborate2	Flashmeeting3	Skype4 (Free version)	Skype Premium5 (Paid version)
Software type	Web-based	Web-based	Install software	Install software
Simultaneous user capacity	No participant limits	Up to 25 people	One-to-one	Up to 25 people
Audio support	Up to 6 simultaneous speakers	1 user can speak at a time	Up to 25 people	Up to 25 people

2 https://www.blackboard.com/Platforms/Collaborate/Products/Blackboard-Collaborate.aspx

3 http://cnm.open.ac.uk/projects/flashmeeting/

4 http://www.skype.com/en/features/

5 5 http://www.skype.com/en/premium/?intcmp=CS-Upsell-FA10868-3

Video support	Up to 6 simultaneous webcams	√	One-to-one	Up to 10 simultaneous webcams
Polling	√	√	×	×
Emoticons	√	√	√	√
Screen sharing	√	√	One-to-one	Group screen sharing
Recording capabilities	√	√	Plug-in (Evaer) 6 is needed	Plug-in (Evaer) is needed
Send files	√	√	√	√
Breakout rooms	√	√	×	×
Training requirement	Medium	Low	Very Low	Very Low

Table 4.1 comparisons of three conferencing systems (September, 2013)

In the following section an articulated tasks design framework in the current study is presented. Further I elaborate on the realisation of the framework and the general pattern for the online session. Section 4.4 introduces the collaborative tasks designed in the two cycles in greater detail . The evaluation criteria for the appropriateness of the web conference tools and collaborative tasks that were proposed and applied in this study is discussed in section 4.5.

6 http://www.evaer.com/

4.2.2 Task design framework in the current study

This section discusses the task design framework considered in the current study. In the current study, Oxford's (2006) framework was adopted in the stage of task design. It includes the following aspects: task goal, task types, stakes of task, input genre and modality, linguistic complexity, cognitive load and cognitive complexity, interaction and output demands, allowable amount of planning and timing, teachers' and learners' roles, and overall task difficulty.

1) Task goal

According to Oxford (2006) , "[p]otential task goals fall into three main groups: focus on meaning, focus on form, and focus on forms" (p. 97). As stated in the previous chapters, the predominant goal of this study is to design communicative tasks that can facilitate leaners' SLA, stimulating their collaboration and foster their listening and speaking skills. When designing the tasks in this study, focus on meaning and form was taken into account. Moreover, other learning goals, such as culture-related activities, sociocultural communication, and digital literacy were considered in task design.

2) Task types

A large number of studies have investigated the effect of task types on learners' language acquisition. Foster (1998) claims that "tasks provide an opportunity not only to produce the target language, but also, through conversational adjustments, to manipulate and modify it" (p. 1).

To date there is no consensus on a single typology of task types. In Ellis's (2003) most cited study, tasks are classified into various categories including: pedagogical classification, (e.g., listing and problem-solving); rhetorical classification (e.g., genre and narrative); cognitive classification (e.g., information/reasoning-gap activities); and, psycholinguistic classification

(e.g., interactant relationship and outcome options). According to Pica, Kanagy, and Falodun's (1993) typology, tasks are classified from "interactant relationship, interaction requirement, goal orientation, and outcome option and the potential impact of their various realizations on opportunities for learners to comprehend L2 input, be given feedback on their production, and to modify their output" (p. 18). After comparing tasks including jigsaw, information gap, problem-solving, decision-making, and opinion exchange, they proposed that tasks in which the information is split into two-way flow (e.g., jigsaw) and which subsequently require interactants to exchange information (e.g., information gap) show higher potential in stimulating interaction and communication than other tasks stimuli.

Apart from the aforementioned classifications, Oxford's (2006) synthesis of task types in the recent literature is shown in Table 4.3.

Problem-solving	**(Nunan, 1989; Pica et al., 1993; Willis, 1996b)**
Decision-making	(Foster & Skehan, 1996; Nunan, 1989; Pica et al., 1993)
Opinion-gap/exchange	(Nunan, 1989; Pica et al., 1993)
Information-gap	(Doughty & Pica, 1986; Nunan, 1989; Oxford, 1990; Pica et al., 1993)
Comprehension-based	(Ikeda & Takeuchi, 2000; Scarcella & Oxford, 1992; Tierney et al., 1999)
Sharing personal experiences, attitudes and feelings	(Foster & Skehan, 1996; Oxford, 1990; Willis, 1996a, 1996b)

Basic cognitive processes. E.g., comparing or matching, Listing, ordering/sorting	(Nunan, 1989; Willis, 1998)
Language analysis	(Willis, 1996a, 1996b, 1998)
Narrative	(Foster & Skehan, 1996)
Question-and-answer	(Nunan, 1989)
Structured and semi-structured dialogues	(Nunan, 1989)
Role-plays and simulations	(Crookall & Oxford, 1990; Richards & Rodgers, 2001)

Table 4.3 Task typology by Oxford (2006, p. 101)

Jigsaw tasks

According to Richards (2001), a igsaw task "involves learners in combining different pieces of information to form a whole (i.e., three individuals or groups may have three parts of a story and have to piece the story again)" (p. 162). It has been considered as one of the most effective activities that can generate the most interaction and production, not only in face-to-face settings, but also in CMC environments (Blake, 2000; Keller-Lally, 2006; Pica et al., 1993; Smith, 2003a). In jigsaw tasks, information is separated into small pieces and allocated to interactants, which require participants to collaborate together to fill in the gaps (see Pica et al., 1993 for more detailed task description). Although the strength of jigsaw tasks has been acknowledged by a number of scholars, their shortcomings should not be neglected. Keller-Lally's (2006) study found that students tend to prematurely give up when conducting jigsaw tasks in synchronous CMC environments. Brandl (2012) also points out that the side effect of tasks types has been greatly ignored by researchers.

Information-gap task

Richards (2001) defines nformation-gap tasks as “tasks in which one student or group has one set of information and another student or group has a complementary set of information. They must negotiated and find out what the other party’s information is in order to complete an activity” (p. 162).

Decision-making task

According to Richards (2001), in decision-making tasks “students are given a problem for which there a number of possible outcomes and they must choose one through negotiation and discussion” (p. 162). Pica and Doughty (1985b, 1985c) term decision-making tasks as tasks in which participants are required to make a convergent outcome from a number of choices.

Rationale of task type selection

The current literature shows that different task types have various degrees of influence on learners’ SLA. In Blake’s (2000) study, 50 intermediate-level Spanish language learners were asked to conduct jigsaw, information gap (one- and two-way), and decision-making tasks in a synchronous chat program, in order to compare learners’ interaction affected by different task types. Students’ chat transcripts were analysed in terms of negotiation types, negotiation of miscommunication, and turn taking. The results showed that jigsaw tasks stimulated the most negotiations, whereas information gap tasks were not nearly as productive a stimuli.

Smith (2003) also compared the influence of two tasks types, jigsaw and decision-making, on the amount of learners’ negotiation in text-based CMC with FTF negotiation. Twenty-eight intermediate-level ESL students collaborated in dyads to complete two jigsaw tasks and two decision-making tasks in the SCMC setting. In his research, Varonis and Gass’s (1985) model was adopted and employed to code participants’ transcripts of negotiation. Moreover, the ratio of

total turns to negotiated turns was also taken into account. Interestingly, in contrast to Blake's (2000) finding, the results demonstrated that decision-making tasks yielded a significantly higher amount of negotiated turns than jigsaws.

Keller-Lally (2006) studied the impact of task-type (jigsaw, decision-making, and opinion exchange) and group size (dyads and small group) on learners' frequency of negotiations and language production. In her study, 62 intermediate German language learners' online discussion via SCMC was transcribed and coded in terms of L1/L2 language use and off-task communication units. The results of statistical analysis illustrated that learner's language output in decision-making tasks and opinion exchange tasks overweighed that in jigsaw tasks. In addition, no significant difference in the amount of negotiations between decision-making and jigsaw tasks was noted in her study, which was contrary to Blake's (2000) and Smith's (2003) findings.

Considering the previous studies, in the first action research cycle, one information-gap task and one jigsaw task were designed and conducted with the participants. In the second research cycle, there were two jigsaw tasks, two decision-making tasks, and one information-gap task. See section 4.4 for more details.

3) Stakes of task: High versus low stakes

Since the purpose of the online sessions was a complementary part of the course, all the participants were invited to join in this project. No academic or financial rewards were given to them (see section 3.6). The main motivation for the participants was to spend extra time to improve their Chinese language competence. However, to encourage learners' participation, I amended the assignment requirements and asked learners to summarise the online session tasks instead of rewriting the texts in the textbook that were used.

4) Input genre and modality

The input genres of the tasks were varied and encompassed different types of modalities. In the second research stage, in order to help the students prepare for the tasks, my colleagues and I produced three demonstration video clips and posted these on the Moodle platform (the LMS system used at Macquarie University) before the online sessions. Further, relevant task materials for jigsaw tasks and information-gap tasks, such as pictures, texts, and instructions, were uploaded online so that students could download these during the sessions. Following Scarcella and Oxford's (1992) suggestions, throughout the online tutorials, the teacher and students could communicate with each other orally and visually, or collaboratively work on whiteboard (e.g., do drag-and-drop activities and write characters or pinyin on it, send text messages to each other). By doing so, the students were able to get the full benefit of the multimodal environment (see section 5.2.1 for multimodal interaction analysis).

5) Linguistic complexity

The contents of the online sessions were aligned with the whole curriculum design. This study was conducted with first-year Chinese learners and their language proficiency was relatively low. Oxford (2006) points out that linguistic complexity is not the same as linguistic difficulty, as "[t]he person's familiarity with the material, the topic, or the language properties mitigates some of the difficulty even when the linguistic material is complex" (p. 104). The online tasks designed in this study consisted of different types of discourse genres (e.g., dialogue, discussion, retelling a story). However, considering students' Chinese language levels, all the instructions, either in oral or written form, were written in English. In the pre-task stages, all the target grammar and vocabularies in the tasks were reviewed and practised with all the participants prior to the task stage (see section 4.3.3 for more details).

6) Cognitive Load and Cognitive Complexity

According to Sweller (1988, 1999, cited in Oxford, 2006), people's capacity for information processing is limited. In other words, the more complicated the information given to the learner, the harder the learning will be. Blackboard Collaborate is a multitask learning system, which requires the participants to pay attention to multiple channels, such as video, audio, text chat, whiteboard, and so on. Therefore, instructions in the online sessions were made easy for the learners to understand. For example, considering their language proficiency, all the instructions were written in English rather than Chinese and shown on the whiteboard. Demonstration materials, such as sample task videos, pictures, or images, were accessible online prior to the online sessions. Online and face-to-face training sessions were provided respectively in the first and second research cycles in order to familiarise the participants with the interface and basic features of the web conferencing tool. In the process of task completion, I monitored learners' interactions in the breakout rooms and provided immediate help.

7) Interaction and Output Demands

Interaction is one of the research focal points in this study. Swain's (1985) output hypothesis states the importance of "comprehensible output"in learners' SLA. According to Pica et al's (1993) task typology, tasks that require two-way information exchange, such as information-gap and jigsaw tasks, can generate more opportunities for meaning negotiation (Long, 1985a). (Doughty & Pica, 1986; Nunan, 1989). In this study, three types of tasks including information-gap task, jigsaw, and decision-making tasks were designed and conducted with the participants. The data analysis of learners' interaction is discussed in chapters 5 and 6.

8) Allowable Amount of Planning and timing

As Oxford (2006) has suggested previously, the allowable amount of planning is one of the key factors to consider in task design. Skehan and Foster (1997) who investigated the effects of

different task types and task implementation conditions on learners' L2 fluency, accuracyd and complexity, found that planning had a positive influence on language fluency and complexity. In this study, participants were given approximately 20 minutes to plan and rehearse with partners in breakout rooms. Extra time was given if they could not finish in the given time.

9) Teacher Roles

Breen and Candlin (1980, as cited in Nunan, 1989) identify the three main roles of the teacher in the communicative classroom as follows: (1) teacher acts as a facilitator, (2) teacher acts as a participant, and (3) teacher acts as an observer and learner. Others (e.g., Oxford, 2006; Richards & Rodgers, 2001) summarise teacher roles as selector of tasks, guide, strategy-instructor, and assistance provider. In the study, I acted as both a teacher and a researcher (see section 3.4.4 for more details of researcher's role). As a teacher, I selected and designed all the online tasks for the online sessions. In the pre-task stage, I acted as a facilitator and helped the learners review grammar structures, which was used in the task stage. In the task stage, I observed learners' interaction in groups and provided assistance as needed. After the participants presented their tasks, I gave feedback and comments based on their performance.

10) Learner Roles

Learners' roles may involve group participant, monitor, strategy-user, goal-setter, self-evaluator, and others (Oxford, 2006). Recently, it has been acknowledged that learners are not only passive information recipients, but also critical, reflective, and autonomous participants (Benson, 2002; Nunan & Phill, 2002). The participants in the current study voluntarily attended the online tutorials off campus. They needed only a computer with access to the Internet and a headset. The online sessions were scheduled between their lectures and tutorials. Most of the time they did not need to do any preparation; nevertheless, in the first, second, and last online sessions in the

second cycle, they were encouraged to watch three sample videos online prior to the online tasks. Throughout the online tutorials, the participants were expected to actively contribute to class discussion, be prepared to answer questions, plan and implement the collaborative tasks, and communicate with their partners to solve problems in the tasks. In the end, they were required to present the tasks in the post-task stage.

11) Overall Task difficulty

Skehan (1996) identifies the following factors that affect task difficulty: code complicity, cognitive complexity (visual support, unexpected elements), and communicative stress factors (e.g., time, modality, scale, stakes, and control). Pettettieri's (2000) study suggests that task difficulty is an important factor in task design. The tasks incorporated lexical items beyond leanrners' repertoire to increase the quantity of negotiation. In order to cater to different participants' needs, in the first research cycle, supplementary tasks were designed for the students who finished the main tasks earlier than the others. For learners' perceptions of task difficulty see section 4.5.3.

4.2.3 Task sequence/cycle

Following Willis's (1996a, 1996b, 1998) and Ellis's (2003) TBL framework, also taking into account Hample's (2006) task design framework in audio-conferencing environment, there were three stages in the online sessions.

Stages	Main room or breakout rooms	Activities	Time limits	Modes mainly used

Pre-task stage	Main room	Warm-up activities	20mins	Audio/video/text chat/whiteboard/polling /emoticons
The task	Breakout rooms	The tasks	20mins	Audio (mainly)/video/whiteboard
The report stage	Main room	Task presentation and the teacher providing feedback	20mins	Audio/video/text chat/whiteboard/polling /emoticons

Table 4.4 Summary of task sequence and activities

4.3 Tasks in the current study

4.3.1 The realisation of the design features in the current research

Table 4.5 presents the realisation of the task framework discussed in the previous section.

Task design features	The realization of the design features in the videoconferencing environment
1. Goal	Multifold: Development of learners communicative skills（e.g., shopping, giving directions); Development of listening and speaking skills Collaboration with each other; Chinese characters recognition

	Building a sense of community; Foster the grammar and vocabulary being addressed in the classroom
2. Task Types	Varied (including information gap (one way/two ways); jigsaw; decision-making); Students work in pairs or small groups.
3. Importance of task	All low-stakes tasks; Student can choose to summarise the online tasks as their written assignment or oral test, which might slightly increase the stakes, but they always have other options.
4. Input Genre and modality	The input genres are varied (tables of information gathering, sample videos, authentic forms, scenario created for the role play) Mixed modality（mostly in written form, also include images, audio and video)
5. Conditions	Split information in jigsaw and information gap tasks (e.g., filling a form, giving directions). Shared information in decision making tasks (e.g., shopping, travel plan) Mainly the tasks lead to a converging result.
6. Linguistic Complexity	Tasks are designed to foster the vocabulary and grammar that the students learned in class. Variation in discourse (formal, casual dialogues, discussion)
7. Cognitive	Varied cognitive load and complexity; High complexity in electronic literacy (manage the system, Moodle, Bb Collaborate); High load in

	collaboratively construct conversation, therefore, sample video is available for students to view before the tasks.
8. Procedure	Warm up activities in the main room; Introduce the main tasks, sometimes followed by a supplementary task, in the main room. Assign the students in pairs or small groups to breakout rooms; Students are given 20–25 minutes to plan and practice the tasks with their partners; Group presentation in the main room after preparation.
9. Allowable amount of planning and timing	Usually, students are given 20–30 minutes to plan and complete the main task. In the pilot study, supplementary tasks were designed to corporate learners at different levels
9. Predicted outcomes: product process	Varied outcomes are expected (fill out a form, shopping, design a route) The predicted product of decision-making task is "open"; that is, more than one choices that the students can make. The outcome of jigsaw and information-gap tasks can be "open" or "closed"
10. Teacher factors	The teacher intervention is limited, acts as a facilitator (giving instruction of the tasks, help students with special movement, e.g., between breakout rooms or the main room) Provide feedback on learners linguistic performance
11. Learner factors	A number of roles, including task-analysers and practitioner, group manager Provide self-correction and evaluation.

Table 4.5 the realisation of the design features in the current research

4.3.2 Tasks in the first research stage

There were two types of tasks applied in the current study: information-gap and jigsaw tasks. According to Pica, Kanagy, and Falodun's (1993) typology, tasks are classified from "interactant relationship, interaction requirement, goal orientation, and outcome option" (p. 18). After comparing various tasks (including jigsaw, information gap, problem-solving, decision-making, and opinion exchange tasks), they proposed that tasks in which the information is split into two-way flow (e.g., jigsaw) and which subsequently require interactants to exchange information (e.g., information gap) show higher potential in stimulating interaction and communication than other task stimuli.

1) Information-gap task

In the first online session, the information-gap (family tree) was applied. Students were paired up in the breakout rooms and were instructed to ask their partners questions, such as their name, age, birthplace, and occupation (see Figure 4.4). The listeners needed to complete the family tree while the speakers were talking. This was repeated for each student.

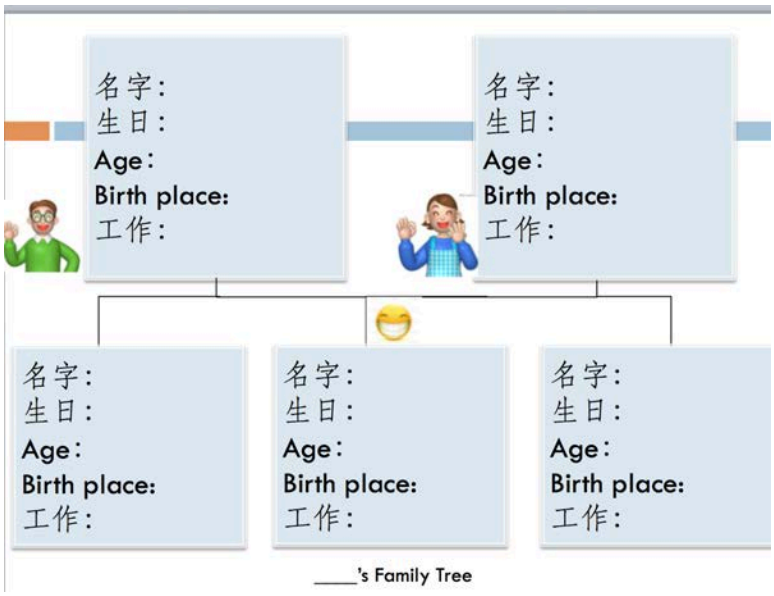


Figure 4.4 A slide in the information-gap task in the first research stage

Jigsaw tasks

Jigsaw task has been considered as one of the most effective activities that can generate interaction and production (Blake, 2000; Keller-Lally, 2006; Pica et al., 1993; Smith, 2003a). In jigsaw tasks, information is separated into small pieces and allocated to interactants, which require participants to collaborate together to fill in the gaps (see Pica et al., 1993 for more detailed task description).

In the second session, the participants conducted a jigsaw task (seeing a doctor). In this task, a model conversation (see Figure 4.5 and 4.6) was provided to the small groups (each group had three students). There were three roles from which they could choose: a sick student, a doctor, and a teacher. After deciding on their roles, the participants received the task guides for the three roles via file transfer. In the first part of the conversation , the sick student chose a symptom and used it in the dialogue; the doctor then chose a treatment based on the symptom that he/she heard. In the second part, the student needed to call the teacher and ask for sick leave, in which the student was required to repeat the doctor's diagnosis to the teacher. The teacher followed the guide to give appropriate suggestions according to the conversation.

As a two-way information exchange exercise, this task allowed the students to make their own choices and required them to listen and make themselves understood. Considering they were beginners at a very early stage, semi-structured model conversation was provided to the students to help them focus on language use rather than dialogue construction.

Figure 4.5 Conversation 1 in the jigsaw task

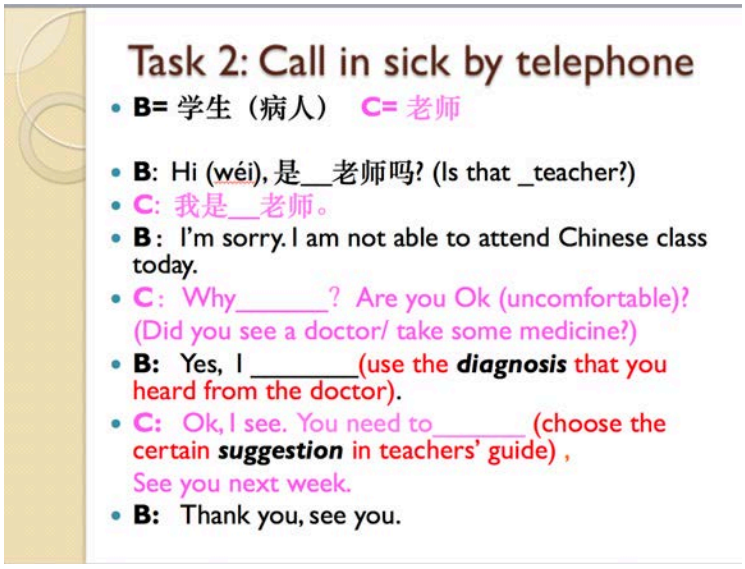


Figure 4.6 Conversation 2 in the jigsaw task

Supplementary Tasks

Taking into consideration different students' study pace, two supplementary tasks were applied in the two online sessions for the students who finished the main task earlier than the others. In the first session, the supplementary task was a drag-and-drop exercise. The students were asked

to match some birthday gifts (birthday cake, CD, money, and book) with their family members (mom, grandma, nephew, and boy/girlfriend) and to provide their reasons in Chinese.

In the second session, in order to review different ways to express the time, the supplementary task was designed as a timetable.

4.3.3 Tasks in the second study cycle

Throughout the second semester of 2013, five fortnightly one-hour online sessions were conducted (see table 4.6). Based on learners' feedback in the first cycle, information-gap and jigsaw tasks were continuingly implemented in this stage. As learners' language level improved, decision-making tasks were introduced.

		Task type	Topic
1	Week 2	Information-gap	Applying for a Chinese Visa
2	Week 4	Decision making	Buying clothes and sending them to China
3	Week 6	Jigsaw task	Maps and showing directions
4	Week 10	Decision making	Planning for a trip
5	Week 12	Jigsaw	Describing an accident

Table 4.6 Summary of tasks in the second research cycle

1) The first online task: Applying for a Chinese Visa (Information-gap task)

In this online session, students were asked to pair up to complete a role-play dialogue (see Appendix F). There were two roles in this information-gap task: a student applying for a Chinese Visa and a staff member at the Chinese Embassy. In the task, the student needed to fill in a visa application form, which was modified from the Supplementary Visa Application Form of the

People's Republic of China[7]. The guides for the student and embassy staff member were uploaded on ilearn (Moodle at Macquarie University) for the participants to download. In order to help the student fill out the form, the staff member needed to rephrase and explain the form using a series of questions. To demonstrate the conversation, my colleague and I filmed and uploaded a sample video with the scripts online and the participants were instructed to watch it before attending the online session. Since the learners' language proficiency was relatively low at that time, we spoke very slowly in the video and highlighted the scripts for the two roles (see figure 4.7). During the session, the participants presented their conversation in groups without referring to their guides. A slide with the key words in the dialogues was displayed on the whiteboard.

Figure 4.7 A screenshot of the first sample video

7 http://www.visaforchina.org/BRU_ZH/generalinformation/downloads/265840.shtml

2) The second online task: Buying clothes and sending them to China (Decision-making task)

This task corresponded with what the students learnt in weeks 3 and 4, shopping and sending a parcel. In the pair work task, the participants were asked to choose a cloth as a gift to their parents and send it to China (see appendix G). They needed to consider the colour, size, and price of the cloth and choose an appropriate way to send these to China within a specified budget. Similar to the first sessions, a sample video was produced as a demonstration dialogue (see Figure 4.8).

In this task, students were asked to choose from some clothes in different sizes and colors as gifts for their parents and then post them to China. They were given a table with prices and types of clothes of various sizes and colours. One student played the role of the shopper, one the shop assistant, and another the post office worker. A table of prices for sending different numbers of items via sea and air was also provided. The groups were allocated a budget to which they were limited. Groups then explained their choices and compared how much they spent with other groups at the end of the session.

This exercise suggested phrases and words the students could use, but it was up to them to build sentences using the prompts to communicate with each other and get the task done.

Figure 4.8 A screenshot of the second sample video

3) The third online task: Maps and showing directions (Jigsaw task)

In this task, each student in a pair had a map with the names of some buildings that were missing; the other student had the same map but with the names of the opposite buildings. The other member of the pair guided the other student to the landmarks to fill in the names on the whiteboard map that had all unnamed buildings. A pointer was used to trace the journey on the shared map. The students took turns until all the buildings were identified (see Appendix H).

4) The fourth online task: Planning for a trip (Decision-making task)

The students were given information on various holiday destinations and were asked to design a Christmas holiday trip for themselves and a friend. Information included minimum and maximum temperatures, airfare and accommodation costs, as well as activities that were available at the destination. Students were asked to plan a travel itinerary. In the main room, one student presented the itinerary and cost, while the other explained why this destination was chosen over others. The students and the teacher then voted on the best plan; the winning group was then awarded a virtual trophy (see Appendix I).

5) The fifth online task: Describing an accident (Jigsaw task)

For this exercise, my colleagues and I produced another video (see Figure 4.9) that showed characters in actions that could be described using the target parts of speech (e.g., present continuous tense, doing something simultaneously with another action). The video presented a collision between the featured characters, showing what they were doing before the accident, the accident itself, and the aftermath. Students were asked to view the video before the session, which was also reviewed again during the session. A series of still photos were created from the video, with a couple of variations also created using extra stills of other scenarios. Each student in a pair downloaded half the photos, arranged randomly. The first and last photos were labelled. Students needed to describe the action in their photos to their partner to work out the story. The photos had prompts for vocabulary and parts of speech (see Appendix J).

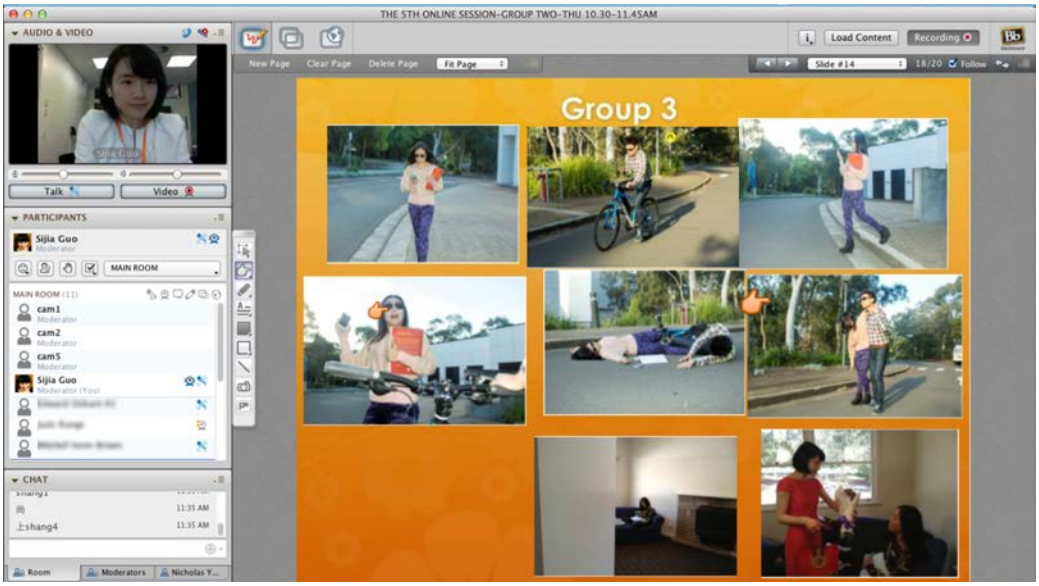


Figure 4.9 a screenshot of Blackboard Collaborate online session

4.4 Evaluation criteria for the appropriateness of web conference tools and tasks

In the study, Chapelle's (2001) six criteria for CALL tasks appropriateness and Wang's (2007) criteria for evaluating meaning-focused videoconferencing tasks were used as guidelines for evaluation. The criteria for evaluating web conferencing tools and collaborative tasks in the current study are summarised in Table 4.7.

Criteria	Descriptions
Practicality	The fit between tasks and the affordance of the web-conferencing tool(s) to support collaborative tasks completion
Language learning potential	• The extent to which learners' attention is directed toward the forms of the language while engaging in meaning-based tasks. • Learners' improvement in the target language, especially in communicative competence • The appropriateness of tasks in facilitating collaborative learning
Learner fit	The fit between learners' characteristics and tasks' characteristics, such as: • The fit between the level of the difficulty of the tasks and the level of proficiency of the learners • The fit between the amount of opportunities for engagement or interaction with learners' expectation.
Authenticity	The degree of correspondence between the web conferencing-based activities and target language activities of interest to learners outside the classroom
Positive impact	The positive effects of the web conferencing-based tasks on those who participate in it (e.g., the impact of the multimodal

	environment, the impact on learners' confidence in learning, etc.)

Table 4.7 The criteria for evaluating web conferencing tools and collaborative tasks in the current study

Questions in relation to criteria for evaluating collaborative videoconferencing-based tasks are shown in Table 4.8.

Criteria	Descriptions
Practicality	• Is the videoconferencing tool technologically sufficient to support multimodal interaction in task completion? • Does the videoconferencing tool offer an appropriate environment for the accomplishment of the tasks?
Language –learning potential	• Do task conditions present sufficient opportunity for beneficial focus on forms and meanings? • Has the learner's target language communicative competence been improved? • Do task conditions and design provide an appropriate environment that is conducive to learners' collaborative learning?
Learner fit	• Is the difficulty level of the targeted linguistic forms appropriate for the learner to increase their language ability? • Will there be enough opportunities for learners to engage in collaborative tasks as they expected?
Authenticity	• Is there a strong correspondence between the task and second language tasks of interest to learners outside the classroom?

	• Will learners be able to see the connection between the videoconferencing tasks and tasks outside the classroom?
Positive impact	• Will learners have a positive learning experience with collaborative interaction via videoconferencing? • Will the learner's confidence be improved through the use of the tasks?

Table 4.8 Questions in relation to criteria for evaluating collaborative videoconferencing-based tasks

4.4.1 Practicality

Following Wang's (2007) criteria, practicality is the first step in a decision to use a certain web-conferencing tool in a certain learning environment. The reason for that is that the technical capacities of software have a direct influence on learns' task completion. As Wang (2007) pointed out, practicality is "the precondition for task performance" (p. 593). This study aims to investigate the affordances web conferencing tools for synchronous online language teaching. In particular, it focused on facilitating learners' listening and speaking skills as well as their communicative competence and collaborative learning.

In this study, practicality concerns how easy it is for the participants, including the learners and the teacher, to carry out collaborative tasks in the web conferencing-based environment. In other words, whether the affordance of the technology can support online multimodal interaction and whether the web-conferencing tool can offer an appropriate environment for the accomplishment of the tasks. Relevant factors, such as the availability of hardware and software (Chapelle, 2001), user friendliness, the acceptance of video and audio quality (Wang, 2007), the stability of the software, and other features of pedagogical values, were all taken into consideration.

4.4.2 Language learning potential

According to Chapelle (2001), language-learning potential refers to the extent to which the tasks can provide opportunities for language learning, which in turn promote focus on form. In Wang's (2007) criteria, learners' perceptions of their target language improvement are also taken into account. Since communicative competence is one of the key aspects of language learning (see Canale & Swain, 1981; Hymes, 1971; Sauro, 2011), whether tasks can promote learners' collaborative learning and achieve communication goals also plays a vital role in language learning potential.

Focus on form

Wang (2008) elaborated on the differences between focus on meaning, focus on forms, and focus on form. It is well accepted that noticing and attending to linguistic form is important for learners' SLA (Robinson, 1995; Schmidt, 1990). Focus on form is defined by Long (1988) as learners' attention to form when they are engaging in meaningful tasks. In the process of meaning-based task completion, certain conditions that can direct learners' attention to language form when interaction and communication break down due to unknown language forms and vocabularies is argued to be beneficial to their language learning.

Skehan (1998, as cited in Chapelle, 2001) identified a number of factors relevant for promoting focus on form, including interactional modification, modification of output, time pressure, modality, support, surprise, control, and stakes. The definition and realisation of each factor is discussed in section 4.3.1. Following Wang (2008), the data analysis in the current study focuses on interaction modification, modification of output, and support in the participants' discourse.

Improvement in the target language

Besides focus on form, learners' improvement in Chinese, particularly listening, speaking skills, and communicative competence, are the focal points in the task design. Data was gathered through observations, while participants' perceptions of language improvement were collected in the post-session survey and in-depth interviews. In the present study, other aspects of Chinese language learning, such as Chinese characters writing and recognition, were also taken in to consideration.

Collaborative learning

Facilitating learners' collaborative learning is one of the primary concerns in the current study. Computer-supported collaborative learning (CSCL), whose principles are derived from Vygotskyan cultural psychology, concerns learners' "collaborative learning" in CMC environments. In previous studies it has been reported that collaboration supported by CMC, when compared to face-to-face interaction, is considered weak in the social context (Kirschner, 2002). In contrast to cooperative learning, in which each learner complete parts of a task, collaborative learning requires learners to negotiate with partners to work together (Beatty & Nunan, 2004).

4.4.3 Learner fit

Learner fit refers to the fit between learners' characteristics and tasks' characteristics. Learners' characteristics include their language ability, proficiency, willingness to communicate, age, and learning style (Chapelle, 2001). Task characteristics refer to difficulty level, whether the tasks can provide learners opportunities to engage in the task and enable them to use a range of language structures to express (Skehan, 1998). Moreover, from a sociocultural perspective, when

deciding task difficulty level, instructors need to consider learners' zone of proximal development (ZPD). Tasks that are already known to the learners or are too difficult and beyond their grasp are not considered beneficial to language acquisition.

4.4.4 Authenticity

Many scholars believe that engaging in authentic tasks is one of the best ways to acquire the target language. Egbert (2005) defines authentic task as "one that learners perceive they will use outside of class in their real world or that parallels or replicates real functions beyond the classroom" (p. 6). As one of the conditions for optimal online language learning, authenticity has a significant influence on learners' engagement and willingness to participate in the tasks (Chapelle, 2001). Nunan (1993) states that applying authentic tasks has a positive influence on facilitating learners' meaningful interaction and therefore, may encourage comprehensible output production and learners' engagement. In terms of authenticity in a web conferencing-based environment, tasks can be made relevant to students' lives, or amended to foster their real-life communication skills.

4.4.5 Positive impact

According to Chapelle (2001), the notion of positive impact incorporates diversified improvements, beyond language learning potential, that learners may obtain from carrying out tasks. An ideal language class not only teaches language itself, but also helps learners to develop metacognitive skills (Oxford, 1990), their interest in the target language and culture, and pragmatic abilities (Chapelle, 2001). In this study, factors such as the impact of the multimodal environment and the impact on learners' confidence in learning was taken into account.

4.5 Collaboration with other staff

This study was conducted in collaboration with staff at Learning and Teaching Centre at Macquarie University in 2013. I was involved in the Faculty Partnership Project (FPP) project called *Developing online capacity in Introductory Chinese Language Units*[8] and acted as academic lead. This project was designed to investigate how the synchronous collaboration tool, Blackboard Collaborate, supports online units. The two main issues that the project intended to address were: (1) the effectiveness of online pedagogy in language learning, and the effectiveness of providing language teachers with innovative tools with which to engage students; and (2) the provision of further guidance on the potential for online synchronous delivery, identifying both its potentials and pitfalls.

In the project meetings, the team members discussed the learning design of training sessions and online tasks. I allocated time to practice using the software, which allowed me to identify issues and strategies in managing online sessions. Trialing with team members allowed me to observe the interface from a learner's perspective. Moreover, the project team offered technical support and helped me with classroom bookings and laptop set-up for online session recordings.

4.6 Summary

This chapter focuses on the context of the study, task design framework adopted, and evaluation criteria for the software and collaboration tasks proposed in the study. It first introduced the functionalities of Blackboard Collaborate, which is the research facilitation software in the current study. A comparison with other Internet-based conferencing tools verified the capacity of Blackboard Collaborate in supporting online teaching delivery. Secondly, drawing on the task

8 https://wiki.mq.edu.au/display/FacultyPartnershipProgram/Developing+online+capacity+in+Introductory+Chinese+Language+Units+-+Mid+Project+Report

design frameworks developed by Nunan (2004), Ellis (2003), and Oxford (2006), I proposed the task design framework for web conferencing-based online language classroom in the current study and discussed the general task sequence in the online sessions. Following that, in section 4.3, I elaborated on the realisation of the proposed task design framework in the two research cycles. The focal point of the study was to evaluate the web-conferencing tool and the collaborative tasks that were designed. Derived from Chapelle's (2001) and Wang's (2008) criteria, I proposed evaluation criteria for the appropriateness of web conferencing tools and collaborative tasks. The forthcoming chapter will address the first research question and present the results and findings in the first research cycle. Further discussion regarding to the evaluation data and results is conducted in chapter 6.

5 Chapter 5 Results of the first cycle of inquiry: Learners' interaction in the web conferencing-based environment

5.1 Introduction

The third chapter identified the methodologies that were chosen to empirically investigate the research propositions. This chapter introduces the research methods selected in the study and the instruments applied in the process of data collection process. Moreover, it illustrates the outcomes of the first data-gathering stage. The data collected from the first stage were analysed in order to answer the first research question:

How do the teacher and students use multiple modes to communicate with each other in a task-based online class?

In other words, what are the multimodal interactions of the teacher and learners in the web conferencing environment?

Moreover, in order to trial the tasks designed for collaborative language learning, learner-learner interaction in the completion of collaborative tasks is examined to answer the second subsidiary question：

What are the characteristics of negotiation for meaning in web conferencing-supported peer-to-peer interaction?

This chapter outlines the findings of the first stage study with two parts: (1) the teacher-learners' multimodal interaction in the web conferencing environment; and (2) learner-learner interaction in the completion of collaborative tasks.

5.2 Data analysis

5.2.1 Part One: teacher-learners' multimodal interaction in the main room (Pre-Task Revision and Post-task Presentation)

Table 5.1 shows the data collection procedures, data analysis methods, and purpose in the first research cycle. The data was collected through video recordings, post-trial surveys, and post-trial individual interviews.

Data Collection	Analysis method	Purpose
Video recordings	Multimodal analysis	To observe how the participants and the instructor employed multimodalities to communicate in the online sessions.
Post-trial surveys	Descriptive analysis	To collect data on participants' demographic data and feedback on the multimodal environment and the tasks designed.
Individual interviews	Descriptive analysis	To take an in-depth investigation on the participants' preferences of multiple modalities and their overall learning experience.

Table 5.1 data collection and analysis methods

6) Analysis of questionnaires

For triangulation purpose, quantitative and qualitative data were collected via post-trial questionnaires, which consisted of structured and semi-structured questions. The questionnaires

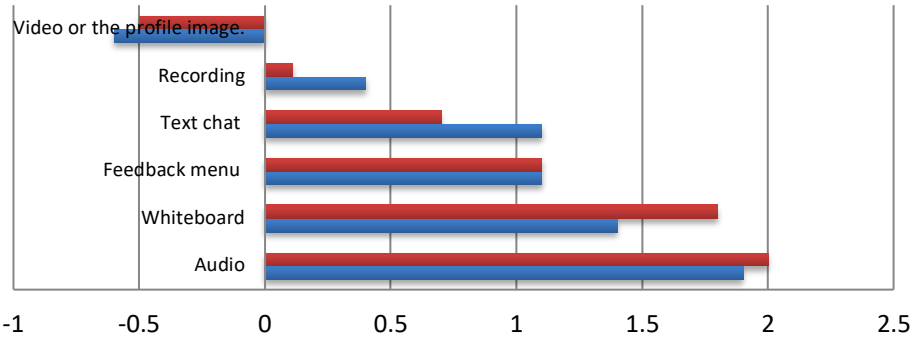
were designed to glean the learners' using experience of Blackboard Collaborate and the two tasks (information-gap and jigsaw) that were designed for the study.

The following data relates to the questionnaires that were completed by eight on-campus students of CHN104 Introductory Chinese 1 at Macquarie University in 2013. The survey was designed to collect data for the first subsidiary question and to provide the researcher with data on the issues and questions that could be further explored in the interview and focus groups. The surveys were distributed to all 10 participants in the first stage study and all of them were returned once completed. The response rate was 100%. Though only eight participants attended both the online sessions and the surveys were anonymous, all the results gleaned from the survey are presented in the following results section.

There were three major parts in the post-trial questionnaires. First of all, participants' demographic data was collected, followed by the questions regarding their preference and usefulness of Blackboard Collaborate. At the end of the questionnaire, participants' task preferences and other comments were collected via open-ended questions.

The participants varied in age from 18 through to 21 years. There were four females and six males. In the second part, the participants were asked to rate the functionalities of Blackboard Collaborate in terms of usefulness and their preferences in the two online sessions. In the questionnaires, -1 represented disagree, 0 as neutral, 1 as agree, and 2 as strongly agree. The results (Table 5.2) illustrate that, according to the participants, the most useful and preferred component was audio (average preference rating was 2, usefulness 1.9), which was followed by the whiteboard, feedback menu, text chat, and recording. It also shows that the video or the profile image was considered to be relatively useless (average preference rating was -0.5,

usefulness was -0.6) in the two online sessions. The reasons for these results were investigated further in the interviews.



	Audio	Whiteboard	Feedback menu	Text chat	Recording	Video or the profile image.
Preference	2	1.8	1.1	0.7	0.11	-0.5
Usefulness	1.9	1.4	1.1	1.1	0.4	-0.6

Average Rating

Table 5.2 Participants' rating of Blackboard Collaborate features in the two online sessions

In order to solicit learners' user experiences and task preferences, there were four open-ended questions.

1. What did you like most when using Blackboard Collaborate for learning Chinese, and why?

For question 1, the following comments revealed that participants' positive feedback was primarily related to collaborative learning with the teacher and their peers. For example,

- *Interaction with other classmates, and discussion.*
- *Doing more practice with the teacher with less people.*
- *Going into the little groups because it was more individualised learning which is better for me.*

Secondly, some students believed that they benefited from distance learning since this enabled them to study at home.

- *Online Session. Because I live far away from university and online lesson save lots of time to study or attend class.*
- *I liked the convenience of being able to do the sessions from my own home.*

Third, but not least, some participants enjoyed the online sessions because they got more opportunities to improve their Chinese proficiency, particularly their spoken language.

- *I can practice what I have learned.*
- *Speaking, because I was able to improve and get practice at speaking Chinese.*
- *It gave us a chance to practice speaking Chinese and made us think about different situations*

It can be seen that the majority of the participants appreciated the collaborative learning environment created by the online platform and the tasks that were designed. Moreover, more opportunities to practise their speaking and listening skills were provided by the online sessions.

2. What did you like least when using Blackboard Collaborate for learning Chinese, and why?

Question 2 aimed to collect any negative feedback from the participants. The results revealed that the majority of unsatisfying experiences were due to technical issues, such as poor or unreliable Internet connection.

- *Due to the reliance on the Internet, it was laggy. Sometimes it is hard to catch everything that is said.*
- *What I liked least was that there was significant lag most of the time, of around 3 seconds, which led to many awkward pauses and unnecessary time consumption.*
- *There was issues with internet lag, but this is no fault of Blackboard Collaborate*
- *Internet connection> lag time.*

Moreover, some students pointed out that the whiteboard was not easy to use in the online sessions, especially the “follow” function.

- *The whiteboard 'follow feature' was bad.*
- *Whiteboard interaction and slide changes, they were sometimes a bit too complicated.*

One student mentioned that it took some time to learn how to use the software, but that eventually, all participants were able to do so.

- *Learning how to use the technology because it took time away from learning but now I think everyone has a decent understanding of how to use it.*

Instability of the Internet connection contributed to most of the audio lag during the online sessions. The reasons were varied and included relatively slow refresh rate of the participants' PC, unstable Wi-Fi connection at their home, and so on. Also, in the first online session, the instructor was connected to the campus Wi-Fi, which was the main reason that resulted in the unreliable connection. After the first online session, the instructor made arrangements for a cable connection to host the second online class. This resulted in a more stable audio connection. Another major negative report was related to the use of the whiteboard. Due to lack of training, the participants became confused when switching the slides in the breakout rooms since everyone can change it on their interface at the same time. In order to solve this issue, more training focusing on the whiteboard and breakout room was provided before the second research stage.

3. What do you think of the tasks in these two online sessions?

The participants were asked about their preference and the usefulness of the two tasks (the jigsaw and the information-gap task).

The participants' comments on Task 1 (the information-gap task) were very positive. They confirmed its strength in facilitating their Chinese learning, particularly in terms of speaking and revision, providing more opportunities for practice. For example:

- *Yes, able to practice speaking.*

- *Helpful to review study.*
- *Helpful, more practice.*
- *Yes. The activities were interesting and were a nice revision of what I had previously learnt in class.*

However, as one student mentioned, the technical issues relating to the online environment meant that it was not valued as highly as face-to-face classes. According to the results of the in-depth interviews, another student felt that he learned more in the traditional classroom settings:

- *The task was good for getting us to actually speak and practice the language. There was a little confusion as to what to do, and due to the nature of the online session, it was a little harder to do than it would be in person.*

Similar to the comments on task 1, the participants' comments on Task 2 (the jigsaw task) indicated that it was conducive to their speaking proficiency and language revision. It is also worth noting here that one student stated that the task was beneficial in terms of reinforce the content they learnt in the class:

- *Yes, it helped me to recall my memory about what I have learned this week.*

However, another student mentioned the technological issues that emerged in the second online session:

- *Same as Task 1. I had trouble using the tools properly, as they didn't function as smoothly as they should (maybe this was a lack of understanding on my part about how to use the tools properly).*

4. Would you like to continue participating in online sessions next semester? Do you have any suggestions for online session tasks?

In Question 4, students were asked if they wanted to participate in the project the following semester. Seven out of eight participants expressed their willingness to continue participating in

the online sessions in the second semester. Two students gave positive answers to this question. However, they also delivered their concerns that even though the software was applicable, they preferred face-to-face classes, especially in language subjects:

- *I wouldn't mind if we had more online sessions, as more practice is always good. Though I wouldn't consider it as an alternative to going to classes in person. At least for Chinese or any language subject. (Issues of connection and lag are quite bothersome in subjects where there is so much interaction, I think.)*
- *I would if I had to. Blackboard is not bad, but I'm traditional and prefer learning in person.*

7) Analysis of interviews

To evaluate the technological capabilities of Blackboard Collaborate and the two tasks designed in the first stage, in-depth interviews were conducted immediately following the online sessions and the surveys. The questions asked in the interviews are provided at Appendix B.

In the individual interviews, participants were asked for their views about their general learning experience, the software, the task configuration, and their task preferences. Learners' feedback provides complementary information on their choices in the questionnaires.

d) General learning experience via Blackboard Collaborate

Question 1. How would you rate the Blackboard Collaborate online learning facilities?

To investigate the participants' general feedback in the two online sessions, the first question was designed to determine how the participations rated the Blackboard Collaborate online learning facilities out of ten. The highest score given by the students was 8/10 for its positive influence on their spoken language practice.

- St 3: *Okay, I'll give it an 8. It's pretty useful because we can practice with other people who you're doing it with.*

- St 6: *I thought it was very helpful, just because it is something that I've never had before in my language learning and it was really good to help us practice us speaking in a real time setting. When I'm learning other languages the only chance that we get to speak is a little bit in class. When we have to do our pre-prepared skit performances, but this makes us think better on the spot.*

On the other hand, other students also expressed their concerns about technical issues in the online environment. Students reported unpleasant learning experiences when there were problems with the software.

- St 5: *Maybe 7.5. Just because there's clashes with the Internet and all that kind of stuff. I think it's a really good idea, other than technical problems, probably nine.*
- St 7: *I think the program itself can be improved. I would rate it like a 6 or a 7 because there are a lot of things I think could be smoother. I think it's at the basic stage at the moment.*

Furthermore, one student reported that users needed to make an effort to learn how to use the tool properly, which echoed other responses provided in the surveys.

- St 8: *I'd say they're about a 7. The first time was really hard to figure out how to use everything. After a couple of goes, it was all right.*

e) User friendly

The participants were asked whether they felt comfortable using Blackboard Collaborate to study online. Student 1 commented as follows:

> *Yes, definitely. If I had to, I would, certainly. Once you get the beginning, first session we had, the training session, and you know what you are doing, then it really is one, two, three, bang and you are doing it, so it is not much.*

Useful features/ Technical capabilities

Audio

According to the results in the post-trial surveys, audio was considered as the most useful and popular feature in the online sessions. The post-trial interviews also yielded similar results: five

interviewees believed that the audio was the most effective method for communicating with others. Some of the comments made by the participants are as follows:

- St 1: *I think the most useful would be talking… Talking is really the primary function of it.*
- St 2: I think the most helpful thing would be the audio because you speak. That's the fastest way I guess.

These results suggest that the majority of the participants agreed that the audio channel in Blackboard Collaborate was the most useful and conducive to their speaking and communication skills.

Whiteboard

Voted as the second most useful functionality in the survey, Whiteboard was used for showing slides and for warm-up activities, such as drag-and-drop and fill- in-the-blanks. Whiteboard was employed as one of the major functional parts of the online teaching practice and received positive feedback from the participants. The students regarded it as one of the most useful tools, which could be combined with audio to provide more visual prompts. For example, student 6 said " *I think obviously the audio is the most important one and the whiteboard helps to give you prompts to help you out with your speaking and the whole rearranging everything."*

In addition, students also reported that Whiteboard made collaboration easier in groups and during warm-up activities. The positive feedback provided by students in the interviews also suggested that the online sessions were enjoyable.

- St 5: *I like the idea of the whiteboard. We'll meet in our groups and we're all sharing it. We're all on the same kind of page. It's a lot easier to collaborate.*
- St 7: *I think the drag and drop probably works a little better, again with the typing frustrations. But with the drag and drop, it's just fun to mix it around.*

However, during the two online sessions, the participants also encountered technical problems when using whiteboard. It mainly focuses on typing Chinese characters on the Whiteboard pages and changing slides. Other technical issues are discussed in further detail below

- St 2: *Sometimes I find that when you type something on the blackboard, there's a box there but then there's no writing, so you have to scroll up. Sometimes I forget and I'm like, "there's nothing there." That's a bit weird.*

Feedback menu

The feedback menu, which consists of the raise- hand, voting, and emoticons, was ranked as the third most useful feature of Blackboard Collaborate. Since voting was mainly used as instructed by the teacher, the interview questions were focused on the usefulness of the raise-hand and emoticons.

Raise-hand button

According to the participants, the raise-hand was an effective feature, which ensured that online sessions were conducted in a courteous and respectful manner. However, at the beginning of the study, students needed prompting to use this feature.

- St 1: *I think, if you prompt them enough beforehand, people will know you have to put your hand up just like in a classroom, etc. I think it is just a habit.*
- Tut: *Yes. So you prefer to use the raise-hands button to answer questions? Or do you prefer to stop, and wait, until the teacher calls you name?*
- St 1: *Well, the student part of me says: wait for the teacher because, fingers crossed, you won't say my name. Either one works, really. Raise-up hands or wait. Or it depends if the teacher is always calling out your name or not, but either one works.*

It can be seen from this excerpt that after being prompted by the teacher, student 1 became more familiar using raise-hand to join in online discussions. With this function, the students may have felt like they were in a face-to-face class, which also made the session more organised.

It is also worth noting that many participants reported that the use of raise-hand function helped avoid unnecessarily awkward interactions and also resulted in a less competitive learning environment.

- *St 4: I think the raising-hand is good because it helps to make it more like a classroom without actually being in the classroom. That makes it lot fairer, I think. Because it's kind of like the same as a normal classroom where you'll have some students who are keen to answer every question and who are willing to come forward and say, "Oh, I know this." Then you have some, which just stay back, and especially since it's online it would be a lot easier to just stay in the background. It makes it a lot more engaging for the people who would normally not trying get involved.*

- St 5: *I like the whole idea of the raising hand thing. It's not like "excuse me" while you're talking. It's subtler.*

Student 2 gave her reason for why she did not use the raise- hand button. She noted that she preferred having the teacher call her name to ask questions since she felt it was somewhat offensive using this function.

- Tut: *Do you think it's comfortable if I just randomly ask you to answer the question.*
- St 2: *I think that might be better because sometimes I think when you raise up your hand, you don't want to answer too quickly because someone else might answer or you don't really want to raise your hand because you think that someone else might answer it. That's how I feel, so I just don't do it.*

Interestingly, student 6 answered from a teacher's perspective, noting in particular that the teacher played a vital role in moderating the conversation flow among the students and had to be more selective, rather than always choosing the most active students.

- St 6: *The problem is you can't have the same person answering every time. You might get one person always raising their hand and that's not going to help all the students learn, only that only one student. I think you need as a moderator or teacher. You need to pick people to put them on the spot if they're not going to choose to answer.*

Emoticons

According to the data from the interviews, emoticons were not as popular as the raise-hand in the online sessions possibly because these are located in the corner of the interface and may have been overlooked by users.

- St 7: *The emoticons are funny. Although, you don't always see them because you might have your list of people. Then you see someone else is using an emoticon, I don't think people look there. It's just something that comes up next to your name. You can't see your own name sometimes, even if you do put an emoticon.*

Text chat

Despite being one of the key major communication channels in Blackboard Collaborate, text chat was not perceived as an indispensable component of the online sessions. Based on the data gleaned from the interviews, the majority of the participants did not pay attention to it.

The reasons can be summarised in three aspects:

(1) During the online sessions, students reported being drawn primarily to audio and Whiteboard. Often, the content on the text chat was overlooked and the message sender usually did not receive a reply. Student 3 commented in the interview:

> *I reckon the text chat [is not useful], like here we don't really use it that much because we have the whiteboard and that's what we use to work on. We do our work on the audio as well. The text chat isn't really used that much.*

2) Text chat is placed at the lower left corner of the interface by default. There is no obvious notification when it is being used.

- St 2: *Because it is very small. I don't really notice it all the time.*

- Tut: *Do you notice the feedback on text chat?*
  St 3: *That's a problem. It's not that clear. There should be a notification or something that someone is talking because there are some other things on the computer, the icon at the bottom flashes, so you could tell.*

- St 8: *Not really [helpful]. It doesn't make a notification sound, like when someone types something. Not really. I was concentrating on the audio, and then also the Whiteboard.*

3) Few students reported using this feature during online sessions.

> *St 6: I think more people used it would be good, but not a lot of people use it. People might not know it's there. If people know it's there and they use it and look at it all the time, then it's good.*

Even though not every participant appreciated the usefulness of text chat in the actual teaching practice, it does offer some advantages. It was utilised, for instance, as a direct approach for error corrections. The teacher was able to provide learners with written feedback using Pinyin, tone marks, or Chinese characters via Text chat. This also echoes Hample and Stickler's (2012) findings.

- *St 4: I think it would be a good idea, let's say, "Oh, I will write down in the text chat this sentence now." I thought that was good because like then people know to draw your attention because people won't use the text chat that much, they didn't really look at it. But it is useful, you just need to make sure people who are looking at it like I write this for you so you know how it's written and stuff like that.*

Video and profile pictures

Video was the only feature that achieved an average rating below zero. According to the interviews, students reported the following attitudes towards the use of video:

1) Neutral: The participants reported that they were concerned whether the web camera was on or off, or that they preferred it if others used it as well.

- *St 2: I guess it depends on other students. I think it's generally okay, but sometimes it's a bit laggy as well.*
- St 3: *That's the problem there because you need a few people to turn it on for other people to turn on because if they're the only one or like just a couple people with the web camera on, no one else wants to turn it on, then it just feel weird because they're by themselves.*

- *St 4: There would be a bit of reluctance to do it if there's no one else using it.*

Some of them felt that having the profile pictures to help identify speakers' face would be sufficient.

- St 5: *Maybe a picture would be good. At least if it's in class, you recognize them that you've worked with them. You know how they work. As for webcams, I'm okay with it. I'd prefer a photo, though.*
- St 7: *If I had a web camera, I'd probably use it. But I just didn't actually get around to it. But yeah, if everyone had webcams, I think it'd be cool because then you just know who's talking.*

2) Negative: There were a few participants who felt strongly about using web cameras. These results echo recent research (Kozar, 2016a; Telles, 2010). Most of the participants did not feel that seeing their peers via web camera was a necessary part of the online sessions.

- St 1: *I don't think there is any need to be watching each other via the video. But sure, if people want to or certain classes need to. For example, media classes, something like that, certainly that is necessary. But when learning Chinese I don't think I need to look at people's mouths opening.*

Student 4 noted that since they already knew each other from face-to-face classes, there was no need for them to see each others' faces on screen.

- *St 4: It's not really a part that was particularly useful I think because most of the time it's just people sitting in their computers. You might use something like that if you have like a whiteboard, but because you've already got the presentation, you don't really need the video.*
  Tut: *Is that because you know them?*
  St 4: *Yes, because we're all in class together. I know who everyone is; I know what their voices sound like.*

Student 8's answer was very interesting. He preferred not being seen on the screen because he had only woken up and was not comfortable being seen on camera. However, he agreed that it was important to see the teacher in the online session since it helped to create a sense of learning in a class.

- St 8: *I pretty much just got out of bed so it's just like no. No one needs to see me like this. I think it's good seeing you on it. I don't think it's quite necessary that the students. It makes it seem more of a classroom if you can see the teacher.*

3) Positive: Only one student felt that video was useful and reported using the web camera in both online sessions, even in breakout rooms.

- *St 3:The web camera is good. It's more interactive. I reckon it's easier to follow with the web camera on.*

Technical Problems

Question 3 was designed to gather details about the technical issues that occurred during the trial stage. In the interviews, St 3 and 6 reported that they did not experience any technical difficulties with regard to connection, communication, and instruction. Other than that, the issues encountered by the remaining participants fell into three categories: audio delay, typing on the whiteboard, and slide transition.

i. Audio delay

Unstable audio connection was the most serious technical issue in the first research stage. In contrast to other reported issues, which could be handled by the teacher or with the assistance of technical support, most of the time both the teacher and the students could not resolve audio problems. The students were instructed to turn off their web camera and report audio lag to the teacher via text chat. However, from the students' perspective, they were required to log out and join the session again.

- *St 1: As far as Internet programming goes, we will of course encounter problems like lag and I think it has happened once, and briefly, during the two sessions, but that is about it. You can't really fix that, unless everyone was at a university using the same network.*

Student 8 reported in the interview that he experienced a long audio delay. When asked how he handled this situation, his response was similar to those provided by most of the other students; they preferred to wait until the lag was over.

- *St 8: One time, it was quite a long one actually. About 30 seconds, or 40 seconds.*
  Tut: How did you deal with it?
  St 8: I waited, because sometimes lag just fixes itself. Then it did, and we had to listen to what you've been saying speed up a bit.
  Tut: Do you prefer to raise up hands and then tell the teachers, or you prefer just wait there, or prefer to use the text chat. Do you like to let others know, or let the teacher know?
  St 8:Because other people were having the same problem, so we're all just ... I think we were waiting, because I don't know if it would've worked if we tried to speak while the audio was lagging.

ii. Typing on whiteboard

Aside from the Internet connection, the text box on the whiteboard was another major issue identified by the students in the interviews. The first online task required students to write their answers on the slides; they commented that the use of the text box for this task was not satisfactory.

- *St 5: Text boxes. Sometimes when you stop and press enter, it kind of stops. When I press enter I would assume it would go to the next line, but instead it just stops you from typing in that box. I was a bit confused at first but I got it after.*
- *St 8: put it in the text box, sometimes it's hard to use.*

iii. Slides changing

In both the online sessions, more than one slide containing the task information was sent to the students in breakout rooms. Although the students were instructed by the teacher to click the "follow" button to take the control of changing slides, a few students reported experiencing problems whilst working with partners in breakout rooms.

- *St 3: I reckon the whiteboard is not as clear, or I reckon that it could be better because the problem with the "follow", when you click "follow", it confuses you sometimes. But, I*

guess, you can overcome that with a little more practice. Yes, I reckoned overall it's good for learning. It's a good learning tool.

Main room VS Breakout room

In the online sessions, breakout rooms were used as the virtual site for group work. In the first online session, the participants were asked to do pair work in the breakout rooms; in the second session, there were three students in one breakout room. During the interviews, the researcher asked them to compare the main room activities and breakout room tasks. Both main room and breakout rooms received positive feedback from the participants.

Main room:

The students who preferred the main room believed that being in the main room made them feel as though they were in a real classroom, especially when being asked questions, which forced them to think on the spot.

- St 1: *The main room; having you talk and ask questions, sometimes, like a real class. That was interesting.*
- St 3: *The asking questions and repeating answering is the best part because it's engaging you to think about how to answer the questions and how to just understand what you're trying to say in there. You just practice. That's it.*
- St 4: *I personally like having the teacher to help guiding and all.*

Student 5 mentioned that she felt relaxed when working with the classmates whom she knew well in class. It helped to create a less pressured learning environment; however, on the other hand, it also made learning more casual.

- St 5: *I think the main room works a lot better. Maybe because I work with XX and XX, because we know each other. It’s not as serious as it would be with people I wouldn’t know. Whereas in the main room, we can’t talk casually in the main room. When we meet in our groups, it’s just a lot more casual.*

Breakout rooms:

Students who preferred the breakout room valued the collaborative tasks and group work with peers. They reported feeling more able to communicate with others and their partners, who inspired them to work harder.

- St 3: *I think the activities in the main room are better. But, the breakout room one is still necessary because we're working with the group.*
- St 4: *The breaker room, they were good for you have group work and everyone works together to sort the problem.*
- St 6: *I think more comfortable in the breakout room because just in your little group, so you can talk and work it out yourselves and help each other. Whereas when it's everyone together, it's one person answering so you have to really think.*

Two students, however, gave negative comments with regard to breakout rooms. They stated that, compared to the main room, interaction in breakout rooms was less dynamic and that it was also a bit awkward without the teacher's presence.

- St 1: *It is less lively, because it is only two people. There is not much you can do with two people and a certain task; you do it and that is it. It is not as fun as some people jumping in into the main room, people making mistakes and you correcting them, and you are giving a lesson in general; I think that is a lot more interesting.*
- *St 4: It's a bit of awkward with suddenly not having a teacher there to lead everyone and having to actually take the initiative and do thing and so on.*

Collaborative learning VS individual learning

In the last part of the interview, participants were asked if they preferred collaborative learning or individual learning in the online environment. Different from Wang's (2008) findings (in her study, the online course was conducted in the fashion of one-on-one), all the participants in the current study expressed their preference for group study. They believed that group tasks were conducive to their Chinese learning in the following ways: (1) scaffolding: learning and getting feedback from peers; (2) motivation: group work motivated the students to do more practice than individual study; and, (3) context: creating a concrete context for language learning.

- St 1: *There is this collegiality where everyone is helping each other out, which is good. Being myself, it is like doing homework, times two. So with a partner for sure…*
- St 2: *I think it's pretty helpful, mainly because I'm able to discuss with other people and be able to speak. During class you're always listening to the teacher, don't really get much chance to practice your speaking. Outside of class, you don't really get to practice it either because there's no one to speak with. Probably as a group. I think it's more useful that way, because individual I think you can do that in the actual class. I think group's better.*
- St 5: *I think working with other people might be a bit easier, just because they might know something I don't. I can't just get it out of the textbook.*
- St 6: *I think collaborative is better, because then you can have those breakout rooms and work in groups and then everyone can come back together, like we did yesterday sort of perform it and we have to listen and answer questions about it. It makes you comprehend what is happening in a situation.*
  - *St 8: I think it's better for, especially that I learn better in groups. It's always good to have other people that you can talk things through. You can ask questions just when everyone else is learning, like silly questions like "How do you say nine?" it's better just to ask someone next to you.*

St 4 and 7 did not express their preference between individual learning and collaborative learning, reporting their view that learning individually or in a group both had their strengths in stimulating learners' interaction and inspiring their thoughts but that it also depended on learners' personal learning strategies.

- *St 7: I don't know. I guess I like individual simply for the fact that you're constantly interacting, whereas if you were in a whole group of people, sometimes you might zoom out while someone's talking. It's just because there are quite a few people. But individual group, like the collaborative is good for group activities. So that was fun. Especially the main group because, again, there's no other people.*
- St 4: *I don't think I really have a preference like they both have their advantages and disadvantages like if you're working on your own, it's a lot easy just get your work on, but being in the group let you like sharing information with each other. If you know how to do something and someone else doesn't you can teach them, and like you said they have something they can also teach you. I thought I was good being able to work together.*

1) Multimodal analysis of the two online sessions recordings

(1) Learner-teacher interactions in the main room

In the integrated multimodal environment, there were a variety of choices available to students from which they could make meaning or share information (e.g., application share or web tour to view a website or application, or video/audio for verbal discussion). Participants were able to "choose the most apt forms […] for the representation of [their] meanings (Kress, 2000, p. 155). They could opt to use one mode to communicate with peers, or integrate multiple modes to revise or modify their language production (e.g., they were able to use video, audio, and text chat at the same time to accomplish their tasks in breakout rooms). The teacher and the learners' multimodal interactions in the main room were quantitatively analysed in terms of speaking dominance, video dominance, and use of text chat, emoticons, raise-hand, and polling.

The recordings of the two online sessions were transcribed by the researcher via Inqscribe. The multimodal transcriptions followed the transcription conventions invented and developed previously (Baldry & Thibault, 2006; Hampel & Stickler, 2012; Stickler et al., 2004).

Following previous literature, the transcriptions in the current study contained the following items: turns, time stamp, participants, audio (Pinyin), audio (English translation), audio (Chinese characters), video activities, whiteboard actions, text chat, spatial movement, notes (technical issues, feedback menu), timer, and announcement. An example of an excerpt is shown in Figure 5.3.

1	Participants	Audio	Audio (English translation)	Audio (Chinese translation)	Video activity	Whiteboard actions	Textchat	Spatial movement	Notes	Timer & Announcement
45	St 1	wo3 jiao4 Tim, Wo3 de shengIri4 shi4 shi2er4 yue4 shi2jiu3 hao4.	My name is Tim, My birthday is 19th,Dec	我叫Tim，我的生日是十二月十九号						
46	Tut	Hi, Ni3men hao3, I was thinking maybe we can use the text rather than drawing the characters. That would be						joined room 6		
47	St 1	I tried that, but it didn't work well as I thought it would be.								
48	Tut	really? The no. 4 on the tool bar.								
49	St 1	St 1: Yeah, but I couldn't type it. Yeah, I got it.				Typed on WB				
50	Tut	good. That would be more tidy.								
51	St 1	That is very much more tidy. Ok.								
52	Tut	That's it. Excellent. Ok, let me know if you have any questions.								
53	St 1	Ok, cool. Ok Birth of place, where was I born. Wo3 zai4 xiangIgang3 chuIshengI. E.m , Wo3 shi4 Mai4ke4li3 da4xue2 de xue2sheng. Right, How do I get the rabish that I typed?	I was born in HK. I'm a student of MQ	我在香港出生，我是麦克利大学的学生		Typed on WB				

Figure 5.3 Sample excerpt of multimodal analysis.

(a) Speech dominance

The speech dominance of both the teacher and the students in the two online sessions was analysed respectively. The proportion of audio dominance is shown in Figure 5.4 (the first online session) and Figure 5.5 (the second online session). It was measured by the L1 and L2 words produced by each participant. As can be seen in Figure 5.4, the tutor dominated the greater proportion of both broadcasts. The contributions made by participants were not distributed evenly in the first online session. For example, student 1's words accounted for 11% of the overall speech production, while student 2 only contributed 1%. Compared with the first session, the students' language contribution in the second online session were distributed more evenly, ranging from 2% to 5%, although the broadcast made by the tutor accounted for 73%. The main reason for this was that the participants tended to use the raise-hand function in group discussions. In addition, the teacher's verbal encouragement also played a significant role in enhancing learners' equality of participation.

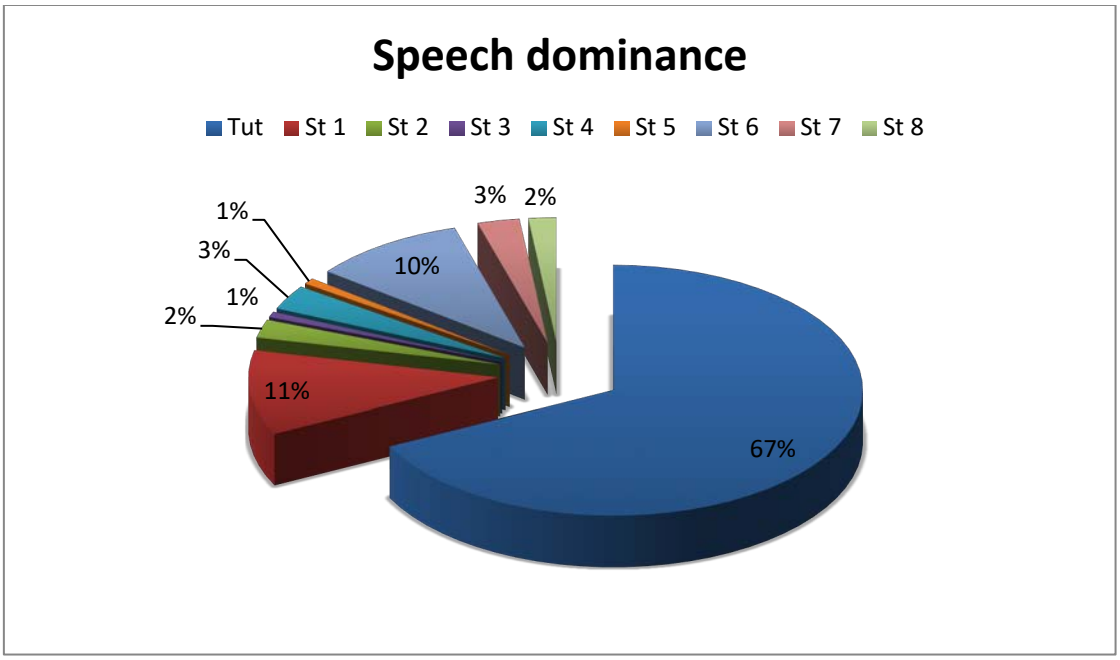


Figure 5.4 Participants' speech dominance in the first online session

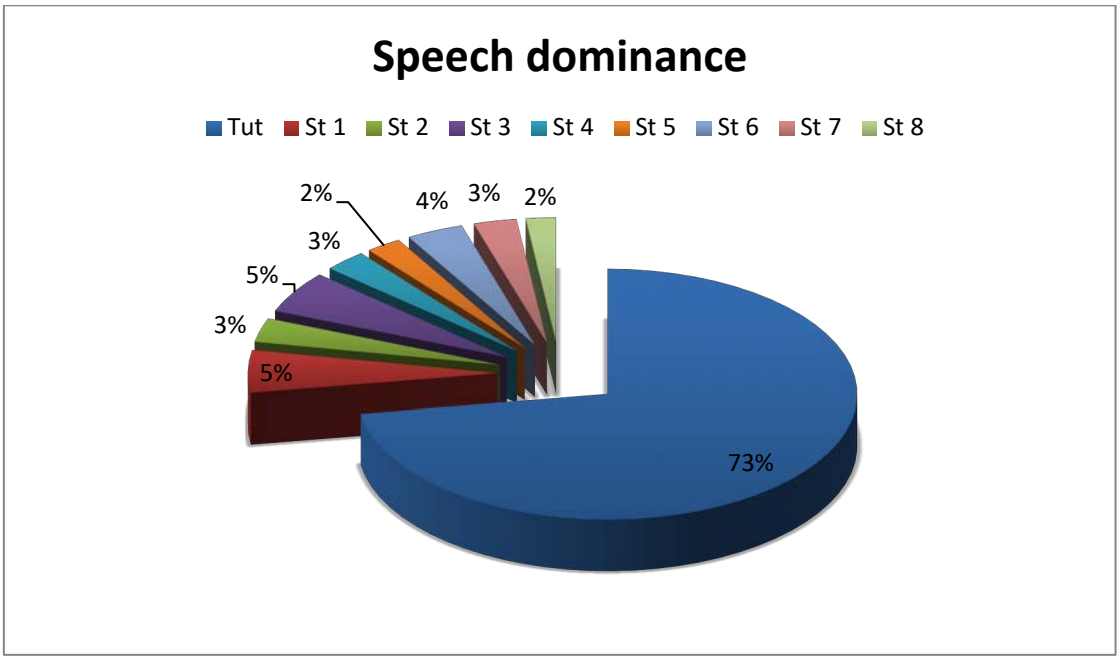


Figure 5.5 Participants' speech dominance in the second online session

(b) Video dominance

According to the results, the students did not perceive video as a useful means for communication in the online sessions. As shown in Figure 5.6 and Figure 5.7, the tutor's camera was turned on throughout the two sessions, only two students used their webcams. Each of them used their webcams for a relatively short time (7 and 8 minutes). The use of the webcam increased in the second session. Specifically, Student 5 and Student 6 used it for 20 and 25 minutes respectively, while Student 3 used his webcam during his post-task presentation (for 3 minutes).

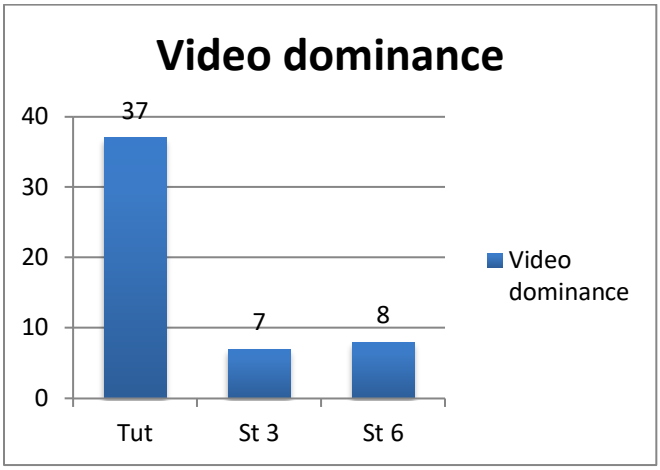


Figure 5.6 Participants' video dominance in the first online session

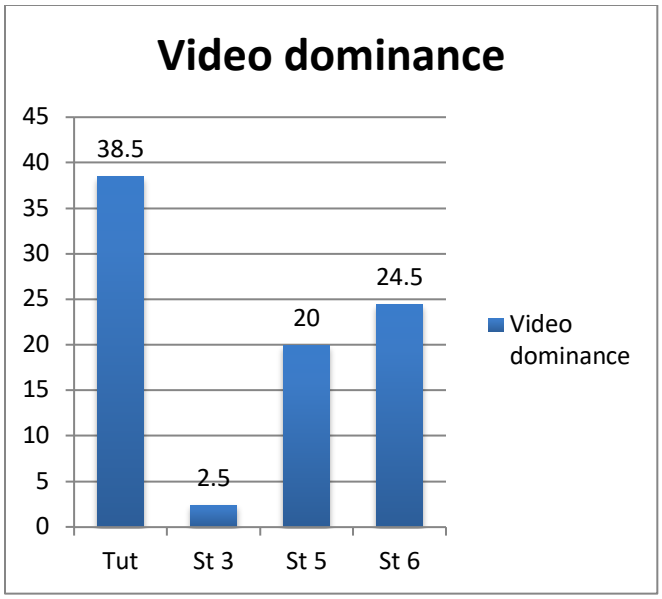


Figure 5.7 Participants' video dominance in the second online session

(c) Text chat

The participants' use of text chat in the two online sessions is shown in tables 5.2 and 5.3. This feature was mainly employed by the tutor for greetings and providing feedback and corrections, such as "你们好!" (Hello!), "fa1yan2"(inflammation), and "睡觉" (sleep). The students used the text chat (all in English) to report technical problems, such as "Woah, just got major lag and missed all that", and when providing responses, for instance, "me too" and "same LoL".

	Chinese (Character and Pinyin)	English
Tut	7	7
St 1	0	11
St 5	0	2
St 7	0	7

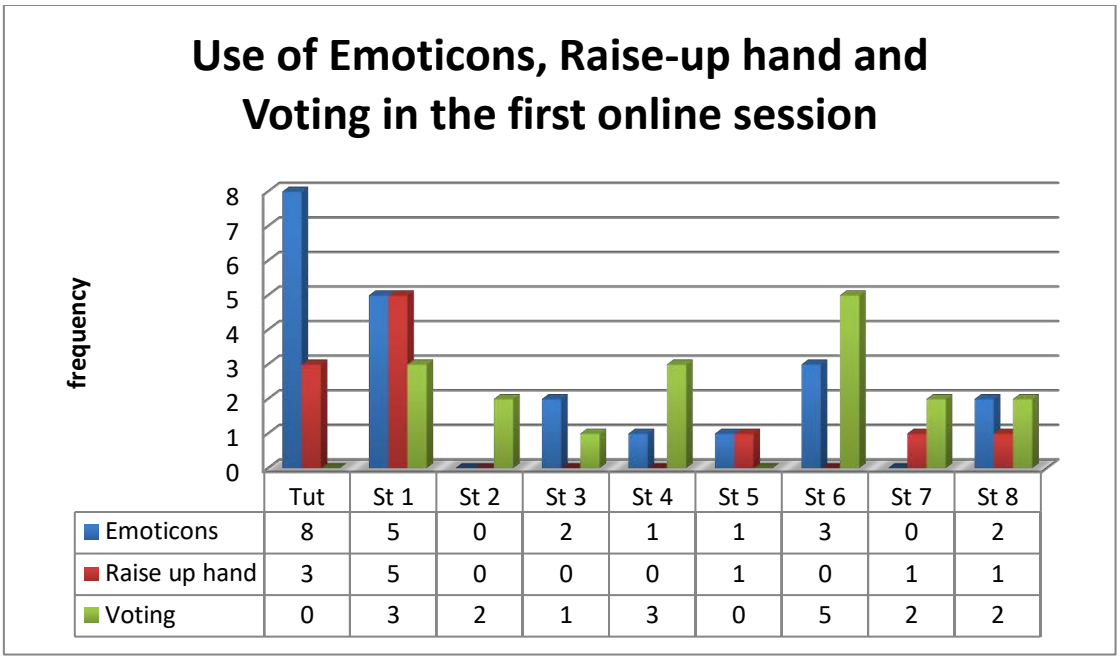
Table 5.2 The participants' use of text chat in the first online session

	Chinese	English
Tut	20 (including Pinyin)	15
St 2	0	6

Table 5.2 The participants' use of text chat in the second online session

(d) Use of emoticons, raise-hand, and voting

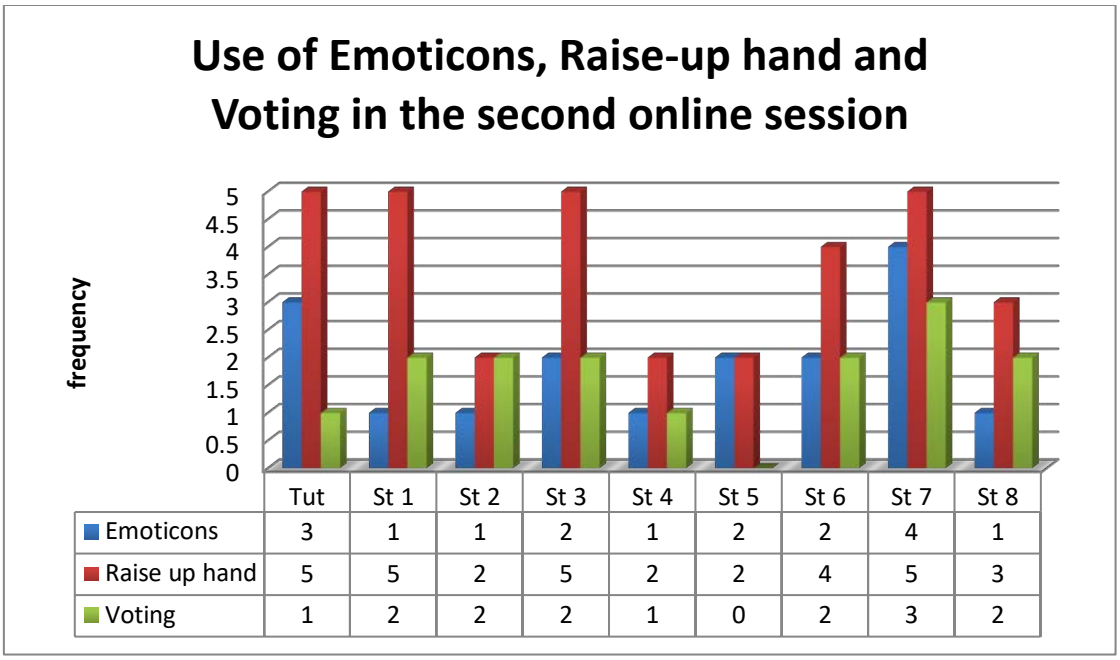
Apart from audio, video, and text chat, the feedback menu including emoticons, raise-hand button, and polling functions also provided opportunities for the students to contribute to the interaction in the main room. Compared with the second online session, fewer students used these feedback functions in the first online session (see Figures 5.8 and 5.9). The tutor used the emoticons eight times during the session, whereas only Student 1 and Student 6 used them frequently (five and three times). Student 2 and Student 7 did not use this feature at all. Compared to their use of emoticons, fewer students chose to use the raise-hand function to ask or answer questions. The tutor used it three times to demonstrate how to answer questions with it. Only Student 1 followed the instructions and used it five times. The rest of the students preferred to wait until they were nominated by the teacher to answer a question. In the online sessions, the tutor employed the polling function to confirm if the students were still following the session (or activity or task). In other words, the tutor did not use it except when verbally checking learners' understanding. For example, before moving to another slide, the teacher verbally asked the participants whether they were still following her. After receiving a "green check" from all the students, the teacher progressed to the next page.



	Tut	St 1	St 2	St 3	St 4	St 5	St 6	St 7	St 8
Emoticons	8	5	0	2	1	1	3	0	2
Raise up hand	3	5	0	0	0	1	0	1	1
Voting	0	3	2	1	3	0	5	2	2

Figure 5.8 The use of emoticons, raise-up hand and voting in the first online session

In the second online session, more students utilised the feedback menu to participate in the interaction. This suggests that they had become familiar with the multimodal environment. All students used the emoticons at least once in the session. In regards to the raise-hand, with encouragement from the tutor, more students attempted to answer questions with the indication of “raise-hand” rather than speaking spontaneously. It made the online conversation more organised and the students were more active in the interaction. Similar to the first session, most participants used the voting tool except student 5.

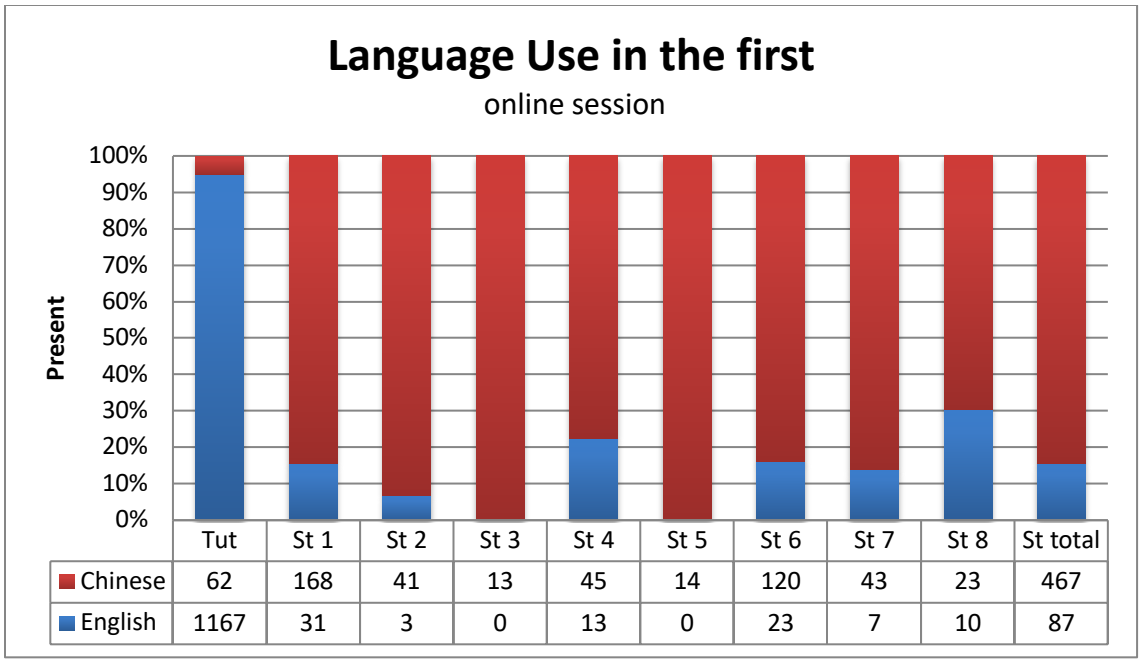


	Tut	St 1	St 2	St 3	St 4	St 5	St 6	St 7	St 8
Emoticons	3	1	1	2	1	2	2	4	1
Raise up hand	5	5	2	5	2	2	4	5	3
Voting	1	2	2	2	1	0	2	3	2

Figure 5.9 The use of emoticons, raise-up hand and voting in the second online session

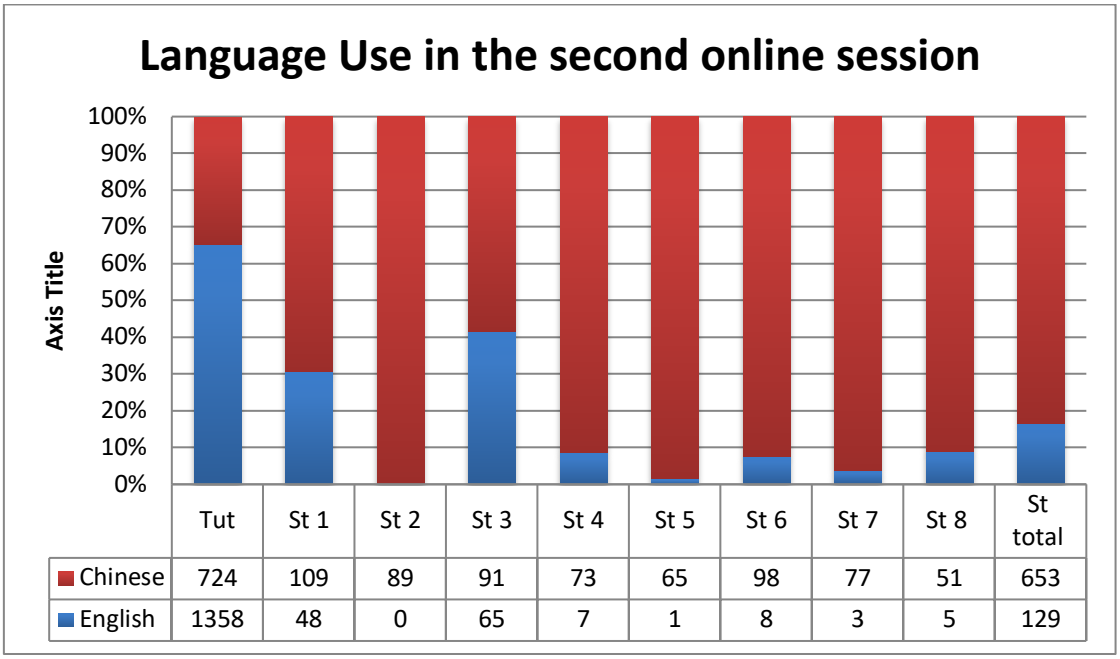
(e) L1 and L2 use in the teacher-learner interaction

Figures 5.4 and 5.5 demonstrate the speech dominance of both the tutor and students in the online session. A more detailed investigation was conducted to identify the proportion of L1 and L2 that the participants produced in the two online sessions (see Figures 5.10 and 5.11).



	Tut	St 1	St 2	St 3	St 4	St 5	St 6	St 7	St 8	St total
Chinese	62	168	41	13	45	14	120	43	23	467
English	1167	31	3	0	13	0	23	7	10	87

Figure 5.10 The use of English and Chinese in the first online session



	Tut	St 1	St 2	St 3	St 4	St 5	St 6	St 7	St 8	St total
Chinese	724	109	89	91	73	65	98	77	51	653
English	1358	48	0	65	7	1	8	3	5	129

Figure 5.11 The use of English and Chinese in the second online session

Comparing the language production in the two online sessions, there were several notable similarities and differences.

Similarities included the following: (1) In both the online sessions, the tutor spoke much more English expression than Chinese (1167:62 in the first session; 1358:724 in the second session). The reason for this was that the tutor needed to give task instructions and linguistic feedback and corrections in English. On the contrary, students' language production was predominantly in Chinese with limited English used. For instance, in the first session, St 3 and St 5 did not speak any English at all. In the second session, St 2 did not speak any English, but spoke 89 Chinese words. The students' average percentage of English use was less than 20% in the both sessions. (2) As shown in Figures 5.10 and 5.11, the average rate of the tutor's language production was far greater than that of the students, and accounted for more than two-thirds of the speech dominance. The conversation flow was under the tutor's control in the main room.

Differences included the following: (1) Results showed that total language production increased in the second session. The students' total Chinese production was 653 words, while in the first session only 467 words were used. (2) Similar to the results of speech dominance (see Figures 5.4 and 5.5), in the second session, the students' verbal contribution was distributed more evenly than it was in the first session. There were two reasons for this: firstly, a greater number of students were more active using the raise-up hand button to answer questions. Secondly, after reflecting upon the first session, the tutor paid more attention to giving every student equal chances to participate in the revision and presentations.

(e) Number of turn-taking in the teacher-learners interaction

Table 5.4 illustrates the number of oral turns per participant in the first and second session. In contrasts to other studies (See Hampel & Stickler, 2012), there were no silent turns[9] in the teacher-learners interaction in the current study. In both sessions, the tutor took the most turns (56 in the first session; 74 in the second session). As the most active student, St 6 took 14 and 17 turns, and St 1 took 12 and 16 turns throughout the two sessions. Taking into account language production, these two students also made a greater oral contribution in the sessions (see Figures 5.4 and 5.5). The lowest number of turns was made by St 2 and St 8. Their turn-taking in the sessions were both below 10 times. Comparing the results in Figures 5.10 and 5.11, St 2 used the least number of English expressions in both the sessions; however, her Chinese production was moderate in comparison to other students, which means that she produced relatively longer sentences when she spoke. When asked in the interviews, "*Would you like to raise up hand to answer questions?*" she said, "I *don't normally because of my personality*". Similar to St 2, St 8 is a female student who prefers to wait until the teacher nominates her to answer questions.

	The first session	The second session
Tut	56	74
St 1	12	16
St 2	7	7
St 3	2	24
St 4	8	11
St 5	3	10
St 6	14	17

9 Silent turns: "students pressing the broadcasting button without actually speaking" (Hampel & Stickler, 2012, p. 123)

St 7	8	11
St 8	6	7

Table 5.5 Number of turns pre participants in the first and second session

5.2.2 Part two: learners' negotiation of meaning in the online sessions

Instances of negotiation were found in both online sessions. Due to word limits, typical examples that illustrate the four primes in Varonis and Gass's (1985) model have been selected and presented in the following section.

2) Trigger (T):

In Varonis and Gass's (1985) schema, Trigger can be categorised as a question, an answer to a question, or neither question nor answer. In this study, trigger as a question and an answer to a question were identified. No incidence of trigger as neither question nor answer was observed in the current study.

Trigger as a question:

Example 1

Negotiation Routines	Transcripts
Trigger	St 5: *Nǐ duō dà?* (你多大？) [How old are you?]
Indicator	St 3: *Are you just asking my age? Like Nǐ jīn nián duō dà?* (你今年多大？) [How old are you this year?]

Response	St 4: *Nǐ jīn nián duō dà? (你今年多大?)* [How old are you this year?]
Reaction to response	St 3: *So wǒ shí jiǔ suì , suì. (我十九岁)* [I'm 19 years old] St 5: *En, en.*

In this example, the breakdown was triggered by the listener (student 3), who wanted to confirm the question that he heard. Both participants knew the correct forms of the question. The problem was solved after student 5 repeated the question more clearly.

Trigger as an answer:

Example 2

Negotiation Routines	Transcripts
Trigger	St 6: *Wǒ de shēng rì shì , sì yuè wǔ hào.* (我的生日是四月五号) [My birthday is 5th April]
Indicator	St 7: *Wait, wait, again?*
Response	St 6: *Sì yuè wǔ hào* (四月五号) [5th April]
Reaction to response	St 7: *Sì oh, four, Sì yuè, oh, wǔ hào* (四月五号) [5th April]

This is a very common example of negotiation in the current study. Due to the relatively low language proficiency, the participants tended to use their first language, English, to translate and clarify the meaning they negotiated.

3) Indicator (I):

In Varonis and Gass's (1985) model, there are four types of indicators, including echo, explicit statement of non-understanding, non-verbal response, and inappropriate response. No incidences of inappropriate response and non-verbal response were identified in the data. However, indicator as correction was not incorporated in Varonis and Gass's (1985) study, which is being added in this study as a new category.

1) Echo:

High instances of echo were identified in the data and usually occurred with "rising intonation" (Varonis and Gass, 1985, p. 76). For example, in example 3, the conversation broke down due to the segmental utterance produced by student 6. Student 7 attempted to clarify the answer by repeating the key words in the question.

Example 3

Negotiation Routines	Transcripts
Trigger	St 7: *Nǐ māma de shēng rì shì jǐ yuè jǐ hào?* (你妈妈的生日是几月几号？) [When is your mom's birthday?] St 6: *Wǒ de māma shēng rì shì ...Um... sì , siyuè , sì yuè sì hào.*

	(我妈妈生日是四月四号) [My mom's birthday is 4th April)
Indicator (echo)	St 7: Jǐ hào? (几号？) [Which day?]
Response	St 6: Sì yuè sì hào. (四月四号) [4th April]

Explicit statements of non-understanding

Explicit statements of non-understanding was one of the most common indicators in the study. As Wang (2006) argues, non-understanding is not the only reason that triggers breakdown. "Lack[ing] of vocabulary to maintain the horizontal movement of the interaction" can also cause "push down" to the conversation (p. 125). In this example, student 7 does not understand the meaning of "勤杂工"and "事务员", and that signals the negotiation routine. This example also echoes Fernández-García and Martínez-Arbelaiz's (2002) findings, that is "[m]ost of the breakdown in the conversations were successfully resolved by providing a translation into English of the unknown word in the trigger" (p. 289). Moreover, it can be seen that, rather than directly telling Student 7 the meaning of "勤杂工" and "事务员", Student 6 chose to type it on the whiteboard.

Example 4

Negotiation Routines	Transcripts

Trigger	St 7: *Nǐ bà ba mā ma zuò shén me gōng zuò?* (你爸爸妈妈做什么工作？) [What do your parents do for a living?] St 6: *Wǒ bà ba shì qín zá gōng, wǒ mā ma shì shì wù yuán.* (我爸爸是勤杂工，我妈妈是事务员) [My dad's is a handyman and my mom's is an office clerk.]
Indicator (Explicit statement of non-understanding)	*St 7: Ok. I've no idea what those are, but, Um…*
Response	St 6: *Yeah, hold on, I will pinyin it for you. (typed on the WB)* St 7: *Oh, Handy man and clerk.*

Indicator as correction

Example 5

This type of indicator was not reported in Varonis and Gass's (1985) study, but was identified in the current data set. As is shown in Example 5, Student 8's question contained a grammatical mistake and she was uncertain about it. In order to understand it, Student 9 tried to rephrase the question and seek confirmation from Student 8. By doing so, Student 9 received and integrated the modified questions into his own utterance. The participants actively took the initiative to

correct their partners' mistakes and it helped to draw their attention to language form, thereby facilitating their language learning (Doughty & Williams, 1998).

Negotiation Routines	Transcripts
Trigger	St 8: *Nǐ shì bà ba shén me suì? Is that right?* (你爸爸什么岁？) [How old is your dad (incorrect grammar)]
Indicator (rephrase)	St 9: *Um… Tā jīn nián duō dà? Or like Nǐ bà ba jīn nián du ō dà?* (他今年多大？你爸爸今年多大？) [How old is your dad this year?]
Response	St8: *Yeah, that would be right. Yeah, tā jīn nián duō dà?* (他今年多大？) [How old is he this year?]
Reaction to response	St 9: *Yeah, Um.... sì shí wǔ, is that right?* (四十五) [Forty five] St 8: *Sì shí wǔ suì.* [Forty five-years old] St 9: Yeah.

4) Responses (R):

According to Varonis and Gass's (1985), responses are reactions to the indicator which incorporate four types: repetition, expansion, rephrasing, acknowledgement, and reduction. Due to the small sample in the study, only instances of repetition were found in the data.

Repetition:

Echoing the findings in Wang's (2006) study, repetition was frequent in the data. The interlocutors tended to repeat utterances in order to repair problems. In Example 6, realising Student 6 had misheard the subject in the question posed, Student 7 explicitly repeated the "Ni3 ma1ma (you mum)" to help Student 6 understand.

Example 6

Negotiation Routines	Transcripts
Trigger	St 7: *St 6, mā ma jiào shén me? (你妈妈叫什么?)* [What's your mom's name?]
Indicator	St 6: *Did you ask my name?*
Response (repetition)	St 7: (laughed) *Nǐ mā ma* (你妈妈) [Your mum]
Reaction to response	St 6: *Oh, Nǐ mā ma. I didn't hear the ma1ma, I heard Nǐ. Um… wǒ de mā ma jiào Jane. (我的妈妈叫 Jane).* [My mom's name is Jane.]

5) Reaction to response (RR)

Reaction to response is the last and optional prime in the negotiation model proposed by Varonis and Gass (1985). As Wang (2006) reported, comprehension and modification of output are the major types of RR. Example 7 shows that jian4 (to see), is the cause of the non-understanding. After St 1's explanation, St 3 was able to understand and managed to integrate the correct form into his utterance.

Example 7

Negotiation Routines	Transcripts
Trigger	St 1: *Xià gè , Um… xīng qī jiàn.* (下个星期见) [See you next week]
Indicator	St 3: *Xià gè xīng qī what?* (下个星期) [Next week what?]
Response	St 1: *Jiàn.* (见) [See]
	St 3: *Jiàn?* St 1: *Yep. Just like zài jiàn. The jiàn.* (再见) [See you]
Reaction to response	St 3: *Oh, Xià gè xīng qī jiàn.* (下个星期见) [See you next week]

6) Confirmation check (CC)

According to Varonis and Gass (1985), comprehension checks can be identified in any of the four stages. In example 8, CC occurred after St 3's response; St 5 used both English and Chinese to confirm the answer she heard.

Example 8

Negotiation Routines	Transcripts
	St 5: *Nǐ de shēng rì shì jǐ hào*? (你的生日是几号？)
Trigger (as an answer to a question)	St 3: *Wǒ de shēng rì shì shí èr yuè yī rì*. Did I answer that question? (我的生日是十二月一号) [My birthday is 1st December].
Indicator (Explicit statement of non-understanding)	St 5: *I don't know. Say it one more time?*
Response (Repetition)	St 3: *Shí èr yuè and then yī rì* (十二月一日) [1st December]
Confirmation Check	St 5: *Yī rì, twelve?* (一日) [The first] St 3: *Yī rì. Rì as day.* (一日) [The first day]
Reaction to response	St 4: *Yeah, so first of December.*

	St 5: *Yeah OK.*

5.3 Summary

This chapter provided a quantitative analysis of the teacher's and learner's multimodal interactions using the web conferencing tool in the pre- and post-tasks of the first research stage. In addition, learner-learner negotiation interaction during task completion within groups was examined in detail. Collaborative tasks were implemented innovatively in a multimodal environment to investigate how the participants employed multiple modes to make meaning online and how the students negotiated when conducting collaborative tasks (Coleman et al., 2010; Hampel, 2014; Stockwell, 2010).

This chapter described how learners and the teacher employ multiple tools to interact in group discussion. The data showed that web conferencing tools might not necessarily lead to equality in participation. It required both the learners and the teacher to be fully aware of the tools that they can adopt to participate in online discussion (Stickler & Shi, 2013). In the current chapter, the teacher's presence and instructions were conducive to enhancing learners' participation and avoiding long monologues (Berglund, 2009). Text chat was selectively used by the teacher and students for different purposes (Kozar, 2016b). The students were inclined to use text chat as a means of greeting, farewell, and sometimes to report technical issues; however, the teacher tended to use it to provide corrections and feedback (Hampel & Stickler, 2012). Echoing Telles's (2010) study, not all participants appreciated the use of the webcam to present themselves in online sessions, which is contrary to previous studies (Satar, 2013). Other tools such as the raise-hand, emoticons, and polling tools also served as supplementary components within the learning environment. For instance, the instructor can verbally encourage students with the 'raise- hand'

to take initiative, while emoticons can be used to compensate for lack of visual cues (Lee, 2001; Negretti, 1999).

The students' interactions in the breakout rooms were examined and coded according to Varonis and Gass's (1985) model of negotiation of meaning. All the four primes in their model were identified in the current data. Similar to the findings in Wang's (2006) study, relatively low listening and speaking proficiency was the main trigger that led to non-understanding. For the same reason, the learners tended to resort to English rather than the target language when communication breakdown took place, echoing the findings in Fernández-García and Martínez-Arbelaiz's (2002) study. The analysis of indicators showed that the tasks designed for the current study enabled learners' collaborative learning. In the process of task completion, the students provided corrections on peers' mistakes which may help to draw their attention to language form (Long & Robinson, 1998). Therefore, we identified a new category indicator as correction in the current study, which had not been in Varonis and Gass's (1985) model. Repetition was the only type of response found in the current study, which also revealed the participants' low language proficiency. In the present study, the majority of reactions to responses served two purposes: (1) to confirm the closure of language breakdown, and (2) to indicate when the modified output had been achieved.

6 Chapter 6 Results of the second cycle of inquiry: The evaluation of the web conferencing tool and the tasks

6.1 Introduction

In the previous chapter, results of the data analysis in the first research cycle were discussed, focusing on the participants' multimodal interaction and negotiation of meaning. This chapter presents the data collected in the second research cycle. In this stage, a more in-depth evaluation of the appropriateness of web conferencing-based collaborative tasks and web conferencing tools is conducted with the aim of answering the third subsidiary question:

What are the pedagogical benefits and limitations of applying the web conferencing tool in a task-based introductory Chinese course?

The current study proposes the evaluation criteria based on Chapelle's (2001) six criteria for CALL tasks appropriateness and Wang's (2007) criteria for evaluating meaning-focused

videoconferencing tasks (see section 4.4). The criteria for evaluating web conferencing tools and collaborative tasks in the current study included the following aspects:

Practicality	User friendliness Audio and video quality Other features of pedagogical values
Language learning potential	Focus on form Improvement in Chinese proficiency Collaborative learning
Learner fit	The level of task difficulty The engagement opportunities
Authenticity	The authenticity of the tasks designed
Positive impact	The impact of the multimodal environment The impact on confidence building

Table 6.1 The evaluation criteria in the second research stage

1) Participants

At the beginning of the second stage (session 2, 2013), 18 students who had finished one semester of Chinese study at Macquarie University expressed their willingness to participate in this study. Throughout the project, 16 of them (nine males and seven females) attended more than 3 online tutorial sessions, completed the pre- and post-session surveys, and participated in follow-up interviews. The data collected from the 16 participants were analysed and are presented in this chapter.

Of the eight participants who were involved in the first stage, six of them (excluding student 7 and student 8) also participated in the second stage. For the analysis of data in both stages of the

research, the labels St 1, St 2, and so on were used to identify students whilst maintaining their anonymity. The two students who participated in the first stage but not the second (St 7 and St 8) were not included in the second stage dataset.

Table 6.2 illustrates the students' participation in the five online sessions.

Online sessions	The 1st online session (Information-gap)	The 2nd online session (Decision-making)	The 3rd online session (Jigsaw)	The 4th online session (Decision-making)	The 5th online session (Jigsaw)
Group1	St 5, St 4	St 3, St 9	St 3, St 9	St 12, St 15	St 4, St 5
Group2	St 3, St 2	St 4, St 11, St 12,	St 11, St 12, St 15	St 3, St 9	St 11, St 12
Group 3	St 11, St 12	St 2, St 10, St 13	St 5, St 6	St 4, St 5, St 11,	St 3, St 9
Group 4	St 1, St 13	St 1, St 5, St 4	St 1, St 10	St 1, St 2, St 16	St 1, St 10, St 13
Group 5	St 9, St 10		St 2, St 14	St 10, St 13	St 2, St 6

Table 6.2 The learners' participation in the five online tutorial sessions

2) Participants' background information in the pre-session survey

According to the pre-session surveys, participants were aged between 18 and 23 years and all of them were confident in their information and communications technology (ICT) skills. Two of them had had previous online or distance language learning experience in high school.

In the pre-session survey, the participants were asked to choose which language skills they expected to improve in the online sessions. The top five selections were:

- Grammar
- Speaking
- Conversation tactics
- Listening
- Fluency

They believed that the ability to communicate with others in the target language (*n* = 14), immediate feedback from teachers (*n* = 12), and opportunities to communicate with others in the target language (*n* = 11) were essential for language learning. Moreover, the participants also considered group support important.

6.2 Practicality

According to Chapelle (2001), practicality refers to the degree of easy implementation of a CALL task in a certain language teaching setting, including the availability of hardware and software, and the assistance offered by knowledgeable personnel to deal with any unforeseen issues. Findings from the interviews indicated that the affordance of Blackboard Collaborate was satisfactory to support completion of the collaborative tasks.

The audio and video quality during the online sessions received positive feedback from the participants. However, echoing the findings in Wang's (2004) study, Internet bandwidth and microphone quality were major limitations. The installation and use of the software was however easy and straightforward. In the following section, data collected from the researcher's observations and students' reflections in the follow-up surveys and in-depth interviews will be presented in terms of the user friendliness, audio and video quality, web camera, and other features of pedagogical value of the web conferencing tool, as well as technical issues relating to its use.

6.2.1 User friendliness

Data relating to the user friendliness of Blackboard Collaborate were collected from the researcher's observations and participants' feedback in the follow-up surveys and in-depth interviews. Ease of installation and ease of use were investigated.

1) Ease of installation

In the pre-session survey, five out of 18 participants indicated that they were extremely confident in using information and communications technology (ICT), while seven students were very confident about their computer literacy skills. Apart from this project, two of them had had prior experience in online distance language learning in high schools.

The instructor's observations

Before this stage of the evaluation, a 20-minute face-to-face training session was conducted in the first week of the second semester in 2013, one week before the first online session. A student guide for using Blackboard Collaborate was provided online before the training sessions as well. Since Blackboard Collaborate had been integrated into ilearn (the Moodle system used at Macquarie University), the students did not need to install the software. In the training session, they were paired and instructed to do a simple name exchange task in breakout rooms. No unexpected technical issues arose. The participants who signed the information consent form were informed of the schedule for the following online sessions.

Before conducting the online sessions, students were made aware of several requirements, which included: (a) regularly updating Java to run Blackboard Collaborate (a link would be provided if necessary); (b) wearing earphones to prevent echo or interference in the audio; (c) operating Blackboard Collaborate from a PC, rather than a mobile device, to ensure full access to the program's functionalities; and, (d) use of a cable for a stable Internet connection as wireless access may not be reliable and may lead to audio lag. Participants were also encouraged to use a web camera in the online sessions; however, this was not compulsory as it was known that having fewer webcams can also alleviate the strain on the connection.

To guarantee successful installation and connection, technical support was provided in the first and second research cycles via the FPP project at Macquarie University (see section 4.5).

Student attitudes and reflections

Although the participants did not need to install the software, it still took them some time to log into a session. In the in-depth interviews, participants were asked the following two questions to for their feedback on ease of installation and the usefulness of the training session:

Do you think Blackboard Collaborate is easy to be installed and used?

Do you think the training session is necessary for the first time users?

Of the eight students who participated in the in-depth interviews, five of them also participated in the first research cycle. All eight students agreed that the installation process was easy and straightforward to follow, noting also that only 5 to 10 minutes was required to update Java on their computers.

Even though all the participants believed that the installation and the interface were simple, the majority of them appreciated the training sessions for the following reasons:

1) They were provided with a refresher on the use of certain functions, such as the emoticons, hands-up button, etc.;
2) They were able to familiarise themselves with the whole system and the structure of an online session; and,
3) They were given a demonstration on the use of some complicated functions in Blackboard Collaborate, which made these easier to use in the following online sessions.

To sum up, according to my observations and the students' interviews results, installing and logging into a Blackboard Collaborate session was not difficult as far as meeting the abovementioned requirements. It was however essential to have a cable connection for the

instructor due to the unreliable Wi-Fi connection on campus. Training and demonstration was also vital for those who were not familiar with online language teaching.

2) Ease of use

The instructor's observations

From the instructor's perspective, even with training, several practice sessions were needed to gain moderate proficiency in using Blackboard Collaborate. Managing a Collaborate session involves multitasking, which required the teacher and the students to pay attention to different areas of the screen at any point in time. Therefore, the FPP team arranged for technical support on my first "live" session. After that, I managed to run and record an online session by myself. During this time, I was able to also monitor the learners' interactions in different breakout rooms and provide assistance to the participants when needed.

Student attitudes and reflections

The participants' feedback was generated via the post-session surveys and in-depth interviews. All the students agreed that after the instructor provided some preliminary instructions, it was very hands-on and easy to use. Student 5, for instance, mentioned in the interview that "the symbols on the software looks like the Word documents one. So it's very easy." Student 9 said in the interview: "*there was one time that it wasn't easy. But it's more to do with my experience than anything. The second semester is great, I kind of feel confident now. Now I worked out the structure of a lesson, I'm more than confortable using it for the rest of study of Chinese.*" St 12 answered: "*there is no difficulty. You just follow the steps and there is no problem. In the beginning, it took me quite a long time, like 3-5minues, but then after that, it already been installed, just less than a min, you just connect.*"

As was mentioned in the previous section, after a face-to-face training session, which embedded a sample task, both the instructor and the participants gradually became familiar with the multitasking interface of the software. In terms of user friendliness, Blackboard Collaborate has shown to be useful software that is also straightforward and easy to use for novices.

It is worth noting, however, that the participants often forgot to click the microphone button to speak and click to turn off the audio when they finished talking. Certain instructions addressing this issue had been put in the slides of the training session in class. In the first a couple of sessions, I still needed to remind them verbally when responses were not being received from the participants. Other than that, no major issues arose in the process of using Blackboard Collaborate in the second research stage. The installation and user experience of the software was satisfactory.

6.2.2 Audio and video quality

According to Wang's (2008) criteria, the second consideration of practicality is the audio and video quality. As far as this study was concerned, video quality was not considered as important as audio quality. The predominant reason for this is that during the Blackboard Collaborate sessions, audio and video were not the only means through which participants communicated with each other. In the online sessions, the participants paid attention mainly to audio interaction with both their peers and the teacher. Besides that, the whiteboard interaction significantly drew the learners' attention since all the tasks they needed to complete and the relevant information and instructions they required were displayed on the whiteboard. In addition, text chat was also used to provide corrections or instructions to the participants. Thus, the usefulness of the video channel was not a concern.

The following section presents the data generated from my personal observations, the post-session surveys, and the in-depth interviews regarding the audio and video quality of the web conferencing tool used in this study.

3) Audio quality

The instructor's observations

In second research stage, the audio connection was acceptable. Serious audio lags were noticed in the first session; when a question was asked, the learners' reaction time was longer than "thinking time". However, it was difficult for me to determine the problem while I was instructing in the sessions since I could not see from the students' perspectives. However, when I reviewed the recordings of these sessions, it showed long audio lags from the students' point of view. Further to suggestions made by technical support, I used a cable from the second online session onwards to ensure that the Internet connection at my end was stable. Most of the audio problems seemed to be related to student Internet connections since different participants encountered audio lag at a different extents. To further address this issue, I suggested that participants turn off their web cameras, as this would help to enhance the quality of audio.

Student attitudes and reflections

The audio quality from the students' side was predominantly reliant on their hardware, such as microphones, computers, and their Internet connections. Generally speaking, it was satisfactory, aside from the Internet connection , which was occasionally unreliable for the students. For those students who participated in both research stages, they agreed that the audio quality had improved in the second stage.

Student 9 reported in the in-depth interviews that in the last online session, when he was working with student 3, due to bad audio connection, they had log out and resort to using Skype to talk to each other. They switched back to Blackboard Collaborate shortly after that. In the interview, he said, *"I won't think it's really atrocious, except that one day of that case. But other than that, everything was very good."*

St 12 mentioned that she could hear my voice nice and clear all the time, but that sometimes, other students' audio quality was not ideal.

Undesirable audio lag and connection was one of the technical issues I encountered in this study (see also section 5.2.1 for technical issues in the first research stage). Although it can be alleviated in various ways, students' low listening and speaking competence are other dominant factors that may trigger non-understanding when audio is not optimal in online sessions.

4) Video quality

The instructor's observations

As I discussed before, the video quality is not one of the major concerns of this study. According to my observations, similar to the previous stage, not many students used web cameras in the online sessions. There were four main reasons for this: (1) all the participants conducted the online sessions in their homes and not all of them had web cameras on their computers; (2) the speed of video transmission may have affected the audio connection, slowing it down, especially when high resolution cameras were used; (3) Blackboard Collaborate has a multitasking interface, and most of the time learners' attention was drawn to the whiteboard and the verbal communication; and, (4) all the participants were on-campus students, so they knew each other

in the face-to-face classes; thus, there was less motivation to see each others' faces through video.

Student attitudes and reflections

According to the findings from the post-session surveys and in-depth interviews, the participants' perceptions of the video quality were fairly positive. As can be seen in Figure 6.1, the number of entries for "agree" (n = 8) and "moderately" (n = 7) in terms of video quality was high, which was the same the result with regard to audio quality. The students believed that the video connection was reliable and the quality was of a satisfactory level, particularly the video quality of the instructor. However, since only a limited number of students chose to use web cameras, further discussion of their attitude towards the use of web cameras will be explored in the following section.

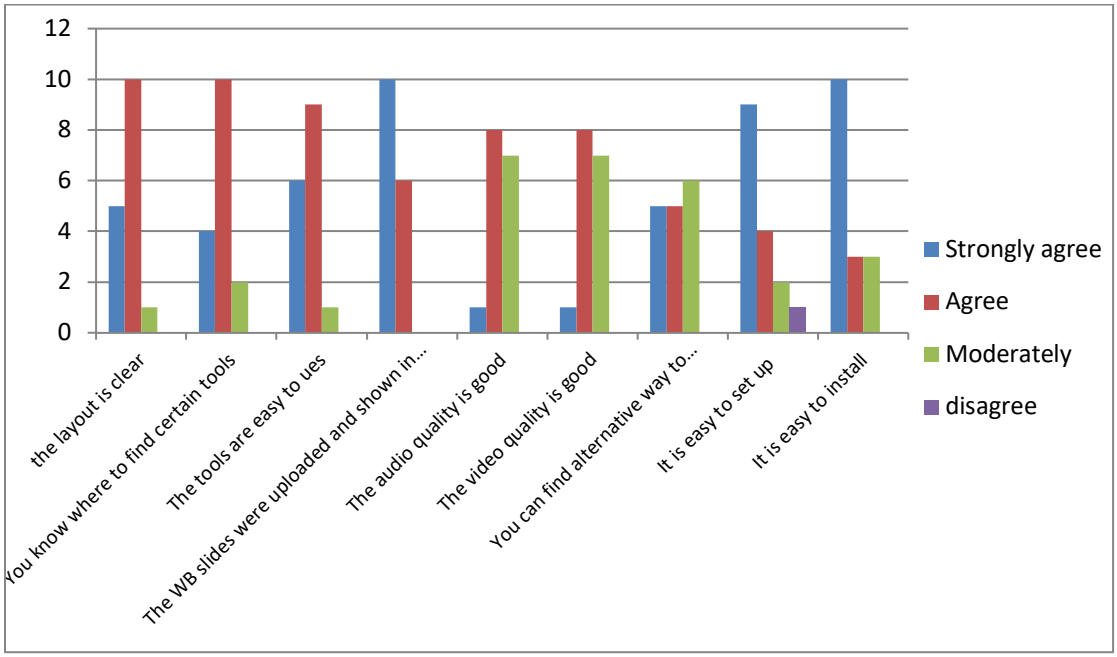


Figure 6.1 Results from the post-session surveys—user friendliness of Blackboard Collaborate

6.2.3 Use of web cam

In order to understand the reason why participants were reluctant to use web cameras, questions were designed in the post-session surveys and the in-depth interviews. Among the 16 participants, their perceptions of using video fell into two categories: neutral and negative.

In the in-depth interviews, four students' attitudes towards applying video were fairly neutral. They expressed that they did not mind using the web cameras in the online sessions. On the other hand, they did not see the benefit of it since "*[they]'re not doing anything that needs to be seen" (student 2 in the interview).* Student 3 was very active and he used web cameras throughout all the online sessions in both the first and second research stages. He mentioned that he felt a little bit awkward when he was the one student using the web camera. He said in the interview, "*I would use it if everyone else used it. But no one used it except for you [the teacher]. I prefer them to use, but there's always lots of problems like Internet connection problems. If it worked smoothly and fine, then it would be a better thing to have."*

Another two students did not use the video since they did not have a web camera installed on their computers. Nevertheless, when asked whether they would use the video if a web camera was provided for them, they still thought that it was unnecessary and that having a profile image indicating which person was speaking would be sufficient. When asked if he noticed other students in the video panel, student 10 answered that " *I wasn't ignoring it, but there wasn't anything gleans from it. It's just there, you can see it."*

However, a greater number of students had a negative impression of using videos in the online sessions. The main reasons were threefold. Firstly, a number of participants considered the video as a distraction rather than a way of support. Throughout the online sessions, the main task

instructions were delivered to the students via the audio channel and the whiteboard. While the participants concentrated on working out the tasks in both the main room and the breakout rooms, it was distracting for them to pay attention to others' movements or body gestures on the video. For example, student 8 commented on the implementation of web cameras in the online session in the interview: " *I sort of had it switched off as I was concentrating on what I was doing like moving the characters around, trying things out, responding to the things. These are more important than web camera. Because I found the web camera a bit distracting in a sense, I didn't see its value that much.* "

Further, student 1 expressed that the transmission of video was disruptive and affected the learning experience in the online sessions as follow:

> *What's annoying is half of the time when you had the web camera when you were talking, the big screen will always focus on you. But if some students' microphone is on, making some cracking noises, the screen changes to them, so it draws the attention away from you, so it's like distraction.*

Secondly, some students, particularly female students, preferred not using the web cameras because they were reluctant to present themselves in front of others when they were at home. Student 12 noted in the interview:

> *I prefer not to use web-cam, because the beneficial of online session is you can stay at home, relaxing and not preparing to present yourself in front of people. If you use web cam, this mess will be shown. I think just have the audio would be helpful to communicate. Other than that, seeing other people's face not really matters. Profile pic would be fine.*

Last but not least, many participants using their web cameras simultaneously caused the lag of the audio transmission. The students' who experienced audio delay followed the teacher's instructions and turned off their web cameras to prevent the program from crashing.

Learners' perception of the teacher's use of video

Although not all the students appreciated the use of video, in the interviews all of them were positive about being able to see the teacher on the screen. The benefits included: (1) contributing to create a sense of classroom study environment; (2) relieving the pressure in an online class; and, (3) helping the students feel more engaged in the online tasks. Student 12, for instance, reported the following in the interview:

> *If Guo laoshi [teacher Guo] use the web cam you will be more like not just talking to technology, a machine, but more like talk to a person. So I feel more confident in speaking with Guo laoshi.*

6.2.4 Other features of pedagogical values

In addition to audio and video quality, there were another four functionalities of Blackboard Collaborate, which demonstrated their pedagogical value in the online sessions: interactive whiteboard, text chat, breakout rooms, and feedback menus. Figure 6.2 illustrates the participants' perceptions of the usefulness of different features. It can be seen that the most useful tool was audio, followed by the raise-hand button, interactive whiteboard, and breakout rooms.

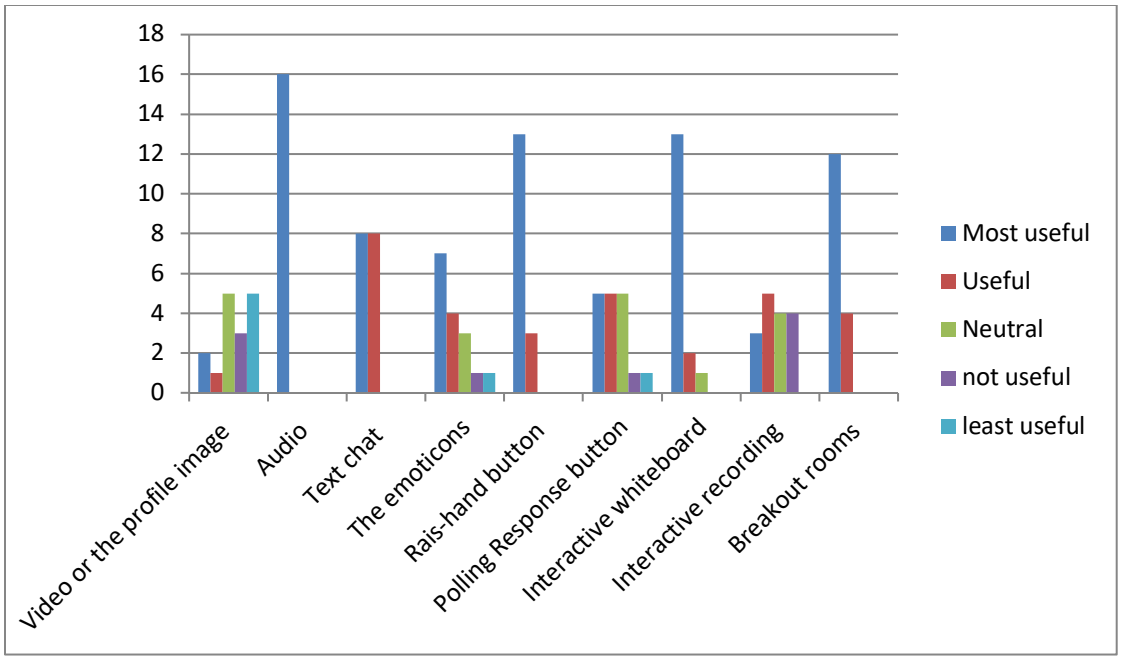


Figure 6.2 The participants' feedback in the post-session surveys—the usefulness of the tools

1) The whiteboard

The instructor's observations

The whiteboard was one of the tools that been used throughout all stages in the online sessions. As it can be easily edited, it allowed all participants to contribute on it simultaneously. Therefore, I utilised it in the pre-task stage, so the students could collaboratively work together to do activities, such as rearranging sentences, drag-and-drop games, and so on. The slides can also be shown in the main room and then copied and sent to the breakout rooms. The loading time of the whiteboard was reasonable and the response time was fairly fast.

Figure 6.3 shows two students working on the "show directions" task using the whiteboard.

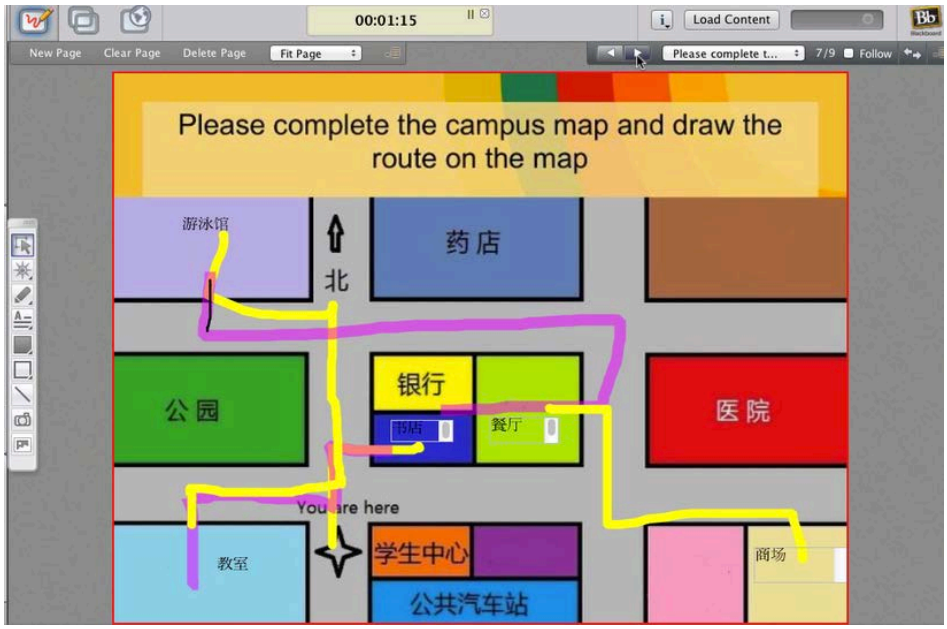


Figure 6.3 A screen shot of whiteboard in the third online task

Student attitudes and reflections

According to the results in the interviews and the post-session surveys, the whiteboard was considered a beneficial tool that facilitated collaboration between peers as well as Chinese character writing and recognition. Student 1 commented in the interview: " *the whiteboard is great! It helped me to recognise more Chinese characters.*"

It is worth noting, however, that more than one student commented that the text editing tool on the whiteboard was not easy to use; this was also reported in the first research stage as well. In some tasks (tasks 1, 3, and 4), the participants were asked to use the whiteboard to write down the information they had heard. When they inserted a text box on the whiteboard, only a small part of it could be seen from other users' perspectives (see Figure 6.4). Other participants needed to drag the edge of the box if they wanted to see the texts. As student 9 reported in the interview,

"sometime the editing tools were a little bit clunky. But we seem to minimise that towards the end, which is good. When we need to sort of filling in the form, it was quite frustrating."

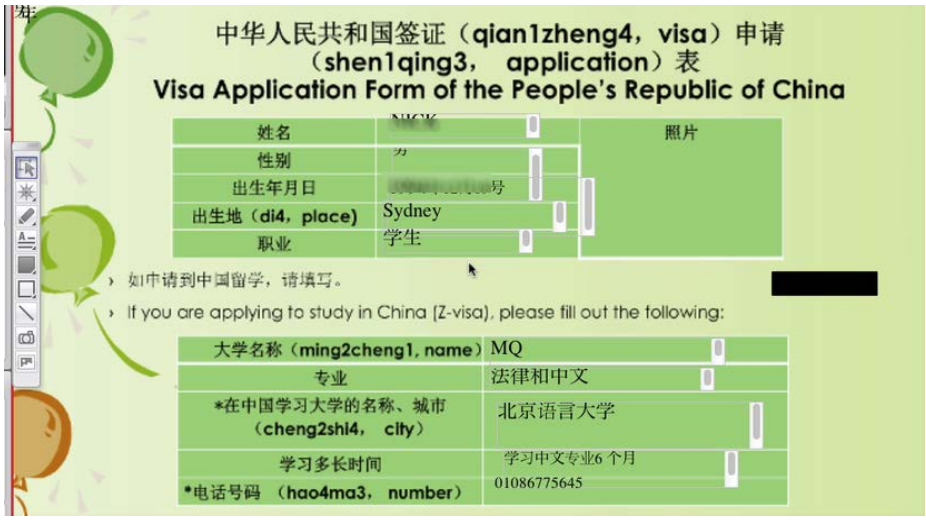


Figure 6.4 A screen shot of whiteboard in the first task

2) Text chat

The instructor's observations

Blackboard Collaborate allows participants to send public messages and private messages. I used both of them under different circumstances. Normally in the pre- and post-task stage, when everyone was together in the main room, I used the public message feature to greet the participants and to give them written feedback in terms of pronunciation (using pinyin, the phonetic spelling of Chinese using Roman letters) and Chinese character writing. In the breakout rooms, private messages were used to provide written feedback or corrections to a certain participant.

Student attitudes and reflections

The participants' attitudes towards text chat were positive. However, in the first two online sessions, they did not notice the information that was sent via the text chat. After being reminded by the teacher, they paid more attention to the written feedback that was sent by the teacher. Most of the time, it was used by the participants as a way of greeting, saying good-bye to others, and reporting technical issues to the teacher.

3) Breakout rooms

The instructor's observations

Following Pica et al.'s (1993) task typology and in order to facilitate the participants' communicative competence, all tasks were designed for pair or small group work. The collaborative nature of breakout rooms showed great pedagogical value in stimulating peer assistance and collaborative learning. Moreover, it allowed the instructor to moderate multiple groups of learners and monitor their interaction in groups, so I could provide timely assistance and explanations. Previous studies have shown that the instructor's presence may have an influence on learners' participation rates. As Berglund (2009) reported in her study, without the teacher's presence, the learners' "contributions often consisted of long monological turns" (p. 202).

Student attitudes and reflections

As reported in section 5.2.1, after the five online sessions, the majority of the participants were more inclined towards collaborative learning rather than teacher-learner learning by the end of the first research stage. In the in-depth interviews, a number of them expressed that they enjoyed carrying out the tasks with their partners in the breakout rooms. As student 5 commented in the interview: *"breakout room is a good idea. I feel safe to work with my partners."*

4) Feedback menu (emoticons, raise-hand button and polling)

The instructor's observations

Apart from the abovementioned functions, the feedback menu, which includes emoticons and the raise-hand and polling buttons, was another frequently used tool in the online sessions. I asked the students to use the raise-hand button to answer questions to avoid audio overlap. Moreover, they managed to use it to notify the teacher when they needed assistance in the breakout rooms. Polling button was mainly used in the first two online sessions when we encountered serious audio lags. The students were encouraged to vote for "green check" or "red cross" before I switched to the next slides so that I could make sure everyone was following my instructions. Emoticons, as been used in other software, was used to express emotions. It contributed to strengthening the bond between the teacher and the students and helped create a sense of collaboration and connection among the participants.

Student attitudes and reflections

As shown in Figure 6.1 the number of entries of "most useful" of the raise-up hand button was very high (n = 13). The participants believed that it helped create a queue for asking and answering questions in the online classes. Student 9 commented in the interviews: "*I like raising-up hand most. It's quick and you can directly see it*".

6.2.5 Technical issues

Throughout the five online sessions, three major technical issues were noticed and reported by the participants, including audio lag, whiteboard page control, and students' permissions.

Audio lag was the one of the major technical issues we encountered in this study. As I mentioned in the previous section, it was related to the participants' Internet connections in their homes.

According to their comments in the in-depth interviews, the audio quality had improved by the last two online sessions. Student 9 commented in the interview: *"I think the audio would probably better. Like obviously a lot of things to do with speaking and I think the audio is much better now"*.

Another problem related to whiteboard page control, which had been reported in the first research stage as well. In Blackboard Collaborate, the audience by default do not have permission to do anything in the Collaborate space. Only those users who are given "moderator privileges" by the session instructor through the icons in the participant panel can do certain activities such as sending themselves to the breakout rooms, moving the slides in the breakout rooms, and returning to the main room. In the first online session, the participants became confused navigating through the slides provided in breakout rooms. After being granted the "moderator privileges", the students were able to click the "follow" button to take the control of switching the slides in the breakout rooms (see Figure 6.5). However, due to the confusion, in some groups, this resulted in students not realising that they were working on different pages. Student 3 reported in the interview: "*using the follow feature, and on the whiteboard page, the page where everyone looks at the sheet, and it got kind of confusing when you want to follow someone and like if one person controls it, it's kind of confusing"*. At that time, I was required to visit all breakout rooms and explain how the "following" function worked. The problem was solved after my demonstration. Nevertheless, this did take quite a long time (approximately five minutes) to resolve in the first online session.

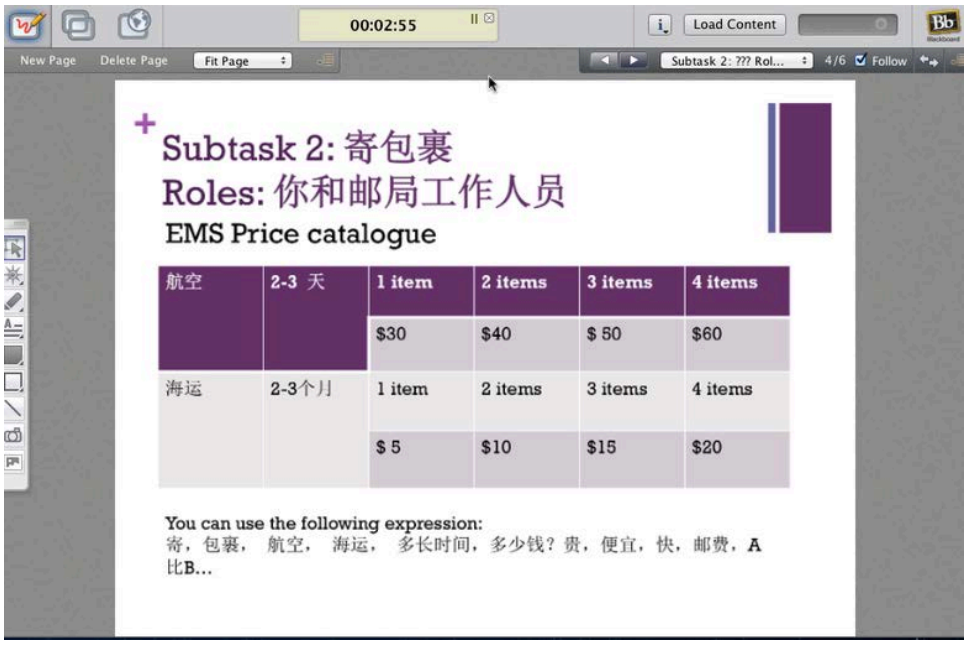


Figure 6.5 A screen shot of Blackboard Collaborate (showing "follow" button)

6.2.6 Summary

To sum up, data collected from the researcher's personal observations, the post-session surveys, and in-depth interviews showed that the practicality of Blackboard Collaborate in supporting learners' interactions in the collaborative tasks designed for this study. Despite the abovementioned technical issues that occurred throughout the online sessions, both the participants and I agreed that the interaction supported via Blackboard Collaborate achieved a satisfactory level. As far as the quality of audio and video was concerned, though audio lag did happen in the first two online sessions, the software allowed the instructor and the students to communicate in real-time without major breakdown. Among all the tools integrated in Blackboard Collaborate, the participants considered audio and the whiteboard predominantly useful in the process of task completion, followed by text chat, breakout rooms, and feedback menus. However, this result is in contrast to previous studies (see Codreanu & Celik, 2013; Wang, 2008), as video was not perceived by participants in this study as a necessary tool for the

online learning environment. However, as all the participants in the current study were on-campus students, further research is needed to explore distance learners' attitudes towards the implementation of web cameras in online language classes.

6.3 Language learning potential

Following Chapelle (2001), language learning refers to "the extent to which the activity can be considered to be a language learning activity rather than simply an opportunity for language use" (p. 55). Further, she differentiates language learning and language use as "the extent to which the task promotes beneficial focus on form" (p. 55). In the current study, language learning potential was measured by focus on form, learners' improvement in Chinese, and collaborative learning as described below.

In section 2.1.2, it was noted that interactional modification may facilitate learners' SLA by temporarily drawing their attention to focus on form in meaning-based tasks (Long & Robinson, 1998). Since the primary goals of the online language tasks were to foster the vocabulary and grammar taught in class, to stimulate peer collaboration, and to improve learners' listening and speaking skills, there were no new lexical and syntactic items seeded in the task design. Therefore, Smith's (2003) expended model of negotiation of meaning in a CMC environment, which is based on the results of lexical-orientated tasks, is not appropriate for use in the current study.

In this study, the incidences of interactional modification in learner-learner interactions were coded and analysed using Varonis and Gass's model, which had been employed in stage 1 as well (see section 3.4.1).

The participants' discourse of the task completion in the breakout rooms was examined closely using Varonis and Gass's (1985) model. Typical examples of meaning negation routines, different types of triggers, indicators, responses, reactions to responses, and comprehension checks were identified and presented.

Learners' perceived language improvement is also included by Wang (2008) in her evaluation criteria of videoconferencing tools and tasks. Following her study, participants' perceived language improvement was collected via post-session survey, in-depth interviews, and the researcher's observations.

Collaborative learning is one of the primary concerns of the current study. In order to examine whether tasks can provide opportunities for peer assistance and collaborative study and in what ways these might facilitate language learning, learners' interactions were examined and examples of peer collaboration and assistance are presented in the following section.

6.3.1 Focus on form in learners' interaction

According to interactionist SLA theories, interactional modification in learners' interaction plays a key role in language acquisition. The current data included the participants' interactions in dyads (the first, third, and fifth online tasks) and triads (the second and fourth online tasks). Different task types were used including jigsaw tasks (the third and fifth online tasks), decision-making tasks (the second and fourth online tasks), and information-gap tasks (the first online task). According to Pica et al.'s (1993) task typology, tasks that require two-way information exchange, such as jigsaw tasks and information tasks, may elicit more meaning negotiation. The forthcoming section presents the examples selected from the current data, which was coded according to Varonis and Gass's (1985) model. Moreover, the meaning negotiation routines will

be qualitatively compared among different types of tasks to examine whether task type has an effect on learners' interactions.

Table 6.3 shows the incidences of negotiation of meaning in the five collaborative online tasks. As we can see, the number of negotiation of meaning in the second online tasks outnumbered those in the other four tasks. However, the number of meaning negotiations in the last two online tasks was relatively low, with only eight incidences in each session.

	The 1st task (Info-gap)	The 2nd task (Decision-making)	The 3rd task (Jigsaw)	The 4th task (Decision-making)	The 5th task (Jigsaw)
Number of IM	13	23	17	8	8

Total 6.3 Number of interactional modification in the five online tasks.

In Wang's (2008) study, two types of breakdown are categorised: (1) a breakdown due to non-understanding, which is adopted from Varonis and Gass's (1985) study; and (2) a breakdown due to a request for new words. In the current data, both of were found and other examples of impasses due to a request for new expressions were also been identified.

An example of non-understanding

Example 1. (The second online session)

St 3: 这套红色的西服也很漂亮。

[These red suits are pretty as well.]

St 9 再说一遍.

[Say it again?]

St 3: 这套红色的西服也很漂亮，帅。

[These red suits are pretty, handsome as well.]

St 9： Yeah, I got that.

As shown above, student 9's non-understanding of the sentence "这套红色的西服也很漂亮" [These red suits are pretty as well] led to the breakdown in the conversation. Student 9 expressed his non-understanding by requesting student 3 to repeat it, which served as an indicator. Student 3's response to it was to repeat the original sentence and add one more word "帅" [handsome] to make it more comprehensible for student 9. After that, student 9 reacted to the response in English, "Yeah, I got that". Upon observing the learners' interactions during task completion and exploring the current data, I noticed that the students frequently resorted to L1/English to resolve language problems they encountered. Fernández-García and Martínez-Arbelaiz's (2002) study also reported that students tend to recourse to native language to repair language breakdown. Questions that explored the reasons why they preferred to use English rather than the target language were incorporated into the in-depth interviews.

Wang (2006) extended Varonis and Gass's (1985) model to embrace not only the analysis of instances of non-understanding, but also the occasions of interactional modification. For this reason, breakdowns triggered either by non-understanding or a request for new lexical or syntactic items were included and presented in this study.

An example of request for new vocabulary

Example 2. (The second online session)

St 5: 你有 [Do you have]， how do you say white?

St 1: 白 [white]

St 5: 你有白色的吗?

[Do you have a white one?]

St 1: 有，我们有白色的.

[Yes, we have white ones].

In example 2, the breakdown was trigged by student 5 who did not know how to say ‘white’ in Chinese. The problem was resolved and the conversation returned to its normal flow after student 1’s assistance.

An example of request for new expressions (syntactic items)

Example 3. (The second online session)

St 10: 你好 [hello] how can I help you? Do you guys know how do you say that?

St 2: 有什么可以帮您？

[How can I help you?]

St 10: Can you type it up? I can’t hear it.

St 2: 你好，有什么可以帮您? (Repeating and typing on the whiteboard.)

[Hello, how can I help you?]

Example 4. The fourth online session

St 3: 怎么说 from 新西兰 到悉尼 is not far.

[How do you say it's not far away from New Zealand to Sydney?]

St 9: 从悉尼去新西兰不太远。

[It's not far away from New Zealand to Sydney.]

St 3: Ok, 悉尼去新西兰不远。机票不太贵。你去过新西兰没有？

[Ok, it's not far away from Sydney to New Zealand. Airplane ticket is not expensive. Have you ever been to New Zealand before?]

St 9: 我去过新西兰 2 次.

[I have been to New Zealand twice].

Example 3 and 4 illustrated the typical examples of peer collaboration routines in the online tasks. As mentioned above, the student was inclined to use English when requesting new expressions and vocabularies.

I. Triggers (T)

According to Varonins and Gass (1985), a trigger is a prime that indicates non-understanding and initiates modification interaction. It can be a question, an answer, or neither a question nor an answer. Table 6.4 reveals the incidences of the three types of triggers found in the data collected.

	Trigger as answer	Trigger as question	Trigger as neither question nor answer
The 1st task (Information-gap)	2	9	1
The 2nd task (Decision-making)	5	11	4
The 3rd task (Jigsaw)	0	0	17
The 4th task (Decision-making)	0	3	0
The 5th task (Jigsaw)	0	0	4

Table 6.4 Occasions of different types of triggers in the five online tasks

From Table 6.4 we can see there are significant differences among different tasks. In the jigsaw tasks (the 3rd and 5th tasks) all the triggers were neither questions nor answers since in the jigsaw tasks, the students in dyads did not need to ask questions, but to describe the information they had to their partners. In contrast, in the other three tasks, the occasions of trigger as question outnumbered the other two types of triggers.

1) Trigger as question

Example 5. (The fourth online session)

Negotiation Routines	Transcripts

Trigger **(As a question)**	St 2: 你去过新西兰吗？ [Have you ever been to New Zealand?]
Indicator **(Explicit statement of non-understanding)**	St 8: 再说一遍？ [Say it again?]
Response **(Repetition)**	St 2：你去过新西兰吗？ [Have you ever been to New Zealand?]
Reaction to response	St 8: 我从来没有去过新西兰。 [I have never been to New Zealand.]

In the current data, the majority of triggers were trigger as question, since the information-gap and the decision-making tasks were designed to ask learners to discuss or request for information from partners. Example 5 shows a typical negotiation routine that often occurred in the online sessions. Most of the language breakdowns were repaired after the interlocutor repeated the questions. (More examples can be found in the following Response section.)

2) Trigger as answer

Example 6. (the second online session)

Negotiation Routines	**Transcripts**
	St 2: 你想买什么？ [How can I help you?]

Trigger → **(As an answer)**	St 10: 我想买的衣服不太贵，也不太便宜 [I want to buy some clothes, which are not too cheap or too expensive.]
Indicator (Explicit statement of non-understanding)	St 2: 再说一遍？ Sorry [Say it again?]
Response (Repetition)	St 10: (Laughed) 我想买的衣服不太贵也不太便宜。 [I want to buy some clothes, which are not too cheap or too expensive.]
Reaction to response	St 2: 是，这件衣服怎么样？ [Yeah, how about this cloth?]

Examples of trigger as answers were only found in the first two online tasks, in which students were requested to do role play. In example 6, student 10 who acted as a shop assistant, attempted to answer student 2's question (St2 acted as the customer). Student 2 did not understand what was said until student 10 repeated himself. When I was observing in the breakout rooms, I noticed both the students were relatively relaxed and enjoyed that session. Part of the reason for this, as discovered in the interviews, was because the participants had watched the demonstration video filmed for the second task prior to the online session. Therefore, they had a brief impression of the conversation and how it could be structured. Student 12 mentioned in the interview: "*The videos are very helpful. I've been preparing for the online session before I*

attend. So I watch the video and write down some notes, which it's very helpful. And I like the subtitle with it".

3) Trigger as neither question nor answer

Example 7. (the third online session)

Negotiation Routines	Transcripts
Trigger (As neither question nor answer)	St 11： 往前走，停，往左边拐， 停，餐厅在你右边。 [Go straight. Stop and turn left. Stop, the restaurant is on your right.]
Indicator (Echo)	St 2: 右边？ [(on my) right side？]
Response (Acknowledge)	St 10: Yeah.
Indicator (Explicit statement of non-understanding)	St 12: Is that like right side?
Response (Acknowledge)	St 11: Yeah, 右边。

Triggers as neither question nor answer were the only trigger I found in the jigsaw tasks (the 3rd and 5th online tasks). The reason was because of the feature of jigsaw tasks, which requires participants to collaborate together to get the information allocated to the partners (see Pica et al., 1993 for more detailed task description). The third and fifth tasks, in particular, required the

participants to take turns to describe the routes or the picture they had to their partners. Thus, all the interactional modification was triggered by descriptive statements rather than questions or answers.

II. Indicators (I)

In Varonis and Gass's (1985) model, indicators are the starting point of the resolution, which is the second part of the model. It is a signal that indicates a failure in the horizontal progress and "push down" in the conversation. In their study, Varonis and Gass categorised four types of indicators, including echo, explicit statement of non-understanding, inappropriate response, and no verbal response. In the current data, there was no occasion of no verbal response. Furthermore, Wang (2008) identified visual indicators in her research of learners' oral-visual interaction in a video-conferencing environment. Incidences of visual indicators were also found in this study. In addition, indicators as a correction, which were also identified in the first research cycle, have not been identified in previous studies. Table 6.5 shows the occasions of the five types of indicators in the five online tasks.

	The 1st task	The 2nd task	The 3rd task	The 4th task	The 5th task	Sum
Echo	0	0	4	1	2	7
Explicit statement of non-understanding	10	17	11	8	4	40
No verbal response	0	0	0	0	0	0
Inappropriate response	1	0	0	0	0	1
Indicator as a correction	2	6	3	1	0	12

Table 6.5 Occasions of different types of indicators in the five online tasks

1) Echo

Echo was one of the common indicators, which were found in the 3rd, 4th and 5th online tasks. As shown in example 8, student 2 repeated the word "往" twice. The first time, she was not sure of

the pronunciation; the second time, she checked the spelling of “往” in pinyin so she could confirm whether or not she had pronounced the word correctly. Examples of echo can also be found in examples 7, 11, 15, and 16. The major occasions of using echo were because the learners attempted to check whether what they heard was correct.

Example 8 (The second online session)

Negotiation Routines	**Transcripts**
Trigger **(As a question)**	St 13: 你要往哪儿寄？ [Where are you sending to?]
Indicator **(Explicit statement of non-understanding)**	St 2: What’s that word?
Response **(Repetition)**	St 13: 往 [Towards]
Indicator **(Echo)**	St 2: 往？
Response **(Repetition)**	St 13: Yeah, 往.
Indicator **(Echo)**	St 2: 往？W-a-n-g?
Response **(Acknowledge)**	St 13: 对 [Right]

Reaction to response	St 2: 我要往中国寄。 [I'm sending it to China]

2) Explicit statement of non-understanding

This type of indicator was the most highly frequent strategy that the participants employed in their online interactions. In Wang's (2008) study, she identifies two main occasions when it is used by learners: when learners have low listening skills, and when there are unknown linguistic elements. Apart from that, another reason for this was because of unsatisfied audio connection from time to time. As student 9 mentioned in the interview:

> *Due to the bad audio connection sometimes, we found that we can't hear it because of the pronunciation, I struggled sort of I can get it.*

In example 9, student 12 did not understand student 9's question. After a silence, she used English to ask "多少钱 [how much]" in the question. Similar to the findings in Wang's (2008) and Fernández-García and Martínez-Arbelaiz's (2002) study, the participants in the current research resorted to English (not all the participants in this study weare native English speakers) to express their non-understanding.

When asked why they chose to use English rather than Chinese to communicate in groups, student 12 (a Korean girl) answered:

> *Honestly, because not many people using Chinese in small expression. I feel very embarrassed to use Chinese when other people are all using English. (Interesting, other students' influence?) Yes, like when other students talk to me in English and I*

talk back in Chinese, I feel kind of like shy and like showing off (Even if most of time you can reply in Chinese?) Like,"什么？ 再说一遍"[Pardon? Say it again.], this sort of thing I can use Chinese. Sometime I can't really hear properly, maybe it's the pronunciation difficulty so I misunderstanding.

Example 9 (the second online session)

Negotiation Routines	**Transcripts**
Trigger **(As a question)**	St 9: 寄航空多少钱？ 寄海运呢？ [How much is the postage for airmail? How about sea mail?]
Indicator **(Explicit statement of non-understanding)**	St 12: （5 seconds silence） Is that 多少钱？ [How much?]
Response **(Repetition)**	St 9: Yeah，多少钱？ [How much?]
Reaction to response	St 12: 寄航空两个衣服是 40 块，寄海运是 4 块钱。 [The postage is 40 kuai for two clothes by air, 4 kuai by sea.]

Explicit statements of non-understanding were abundant in the current data, and can also be seen in examples 5, 7, 8, 9, 11, 14, 15, 17, 18, 19, 20, 21, 22, 23, and 24.

3) No verbal response

The incidence of no verbal response was not found in the current data.

4) Inappropriate response

Only one incidence of an inappropriate response was found in the current data. In example 10, student 11 did not understand the question that student 5 had asked, but he simply replied "好 [OK]". That led to the breakdown in the conversation. Student 5 explained her question in English again to fix the problem.

Example 10. (The second online session)

Negotiation Routines	Transcripts
Trigger (as a question)	St 5: 请问这套白色的睡衣和那件黑色的西服一共多少钱？ [May I ask how much of the white pyjamas and that black altogether?]
Indicator (Inappropriate response**)**	St 11: 好 [OK]
Response (Resort to English)	St 15: I asked you how much in total?
Reaction to response	St 11： 一套西服和一套睡衣一共 140 块. [A suit and pyjamas are 140 kuai in total.]

5) Indicator as a correction

Similar to the findings in the first research cycle, in this evaluation, examples of indicator as a correction were found in the first four online task interactions. That is because before and during the task stage, I, as a teacher, reminded and instructed all the participants to help and correct their

partners' language mistakes since I was not able to simultaneously monitor all breakout rooms. In example 11, student 3 and student 9 were comparing airmail and sea mail in terms of postage price and speed, using the grammar structure taught in class. The same sentence pattern was repeated in the demonstration video as well. Therefore, student 3 anticipated what student 9 was about to say. Instead of waiting for student 3, student 9 finished the sentence by himself and helped his partner continue the conversation.

Example 11. (The second online session)

Negotiation Routines	**Transcripts**
Trigger (as a answer)	St 3: 你要寄航空还是海运？ [Do you want to send it by sea or by air?] St 9: 寄航空比海运… [Comparing to sea mail, air mail…]
Indicator (as a correction)	St 3: I will say it. 寄航空比海运贵，可是比海运快多了 [Air mail is more expensive then sea mail, but is much faster.]
Response (Acknowledge)	St 9: Ok. 寄航空多少钱？ [How much does air mail cost?]

Another example of indicator as a correction can be seen in example 12. When student 11 was answering the previous question, student 15 stopped him and corrected the measure word in his utterance. Realising the mistake, student 11 completed his sentence and continued the dialogue.

Example 12. (The second online session)

Negotiation Routines	Transcripts
Trigger (as a answer)	St 15: 你有白睡衣吗？ [Do you have white pyjamas?] St 11： 这件睡衣… [These pyjamas…]
Indicator (as a correction)	St 15： I think it's 套(tao4, set)， because it's a set.
Response (Repetition)	St 11： Yeah, 这套睡衣不太贵，50 钱，50 块钱， 你喜欢吗？ [These pyjamas are not expensive, 50 kuai. Do you like it?]
Reaction to response	St 15: 你有白色的吗？ [Do you have white ones?]

III. Responses (R)

Response is the third prime in Varonis and Gass's (1985) model, which is the reaction to the breakdown in conversation. Varonis and Gass (1985) identify five types of responses, including repetition, expansion, rephrasing, acknowledgement, and reduction. Further, Wang (2008) added another type of response, target language equivalent, in her study. All the five types of response were identified in the current data (see Table 6.6).

	The 1st task	The 2nd task	The 3rd task	The 4th task	The 5th task	Sum
Repetition	1	11	4	2	3	21

Expansion	1	1	3	2	0	7
Rephrasing	0	0	0	1	0	1
Acknowledgement	4	2	4	0	4	14
Reduction	0	1	0	0	0	1
Target language equivalent	4	8	6	6	1	25

Table 6.6 Occasions of different types of responses in the five online tasks

1) Repetition

There were abundant examples of repetition noted in the current data. This was due to the participants' relatively low listening and speaking competence, language proficiency, and sometimes because of unstable audio connection. In example 13, when student 9 answered the previous question "你看看这套丝绸的西服 [Take a look at these silk suits.]", his pronunciation, particularly the tones, was not accurate. After student 3 confirmed with him in English, he repeated the sentence. Student 3 did not understand the word "丝绸 [Silk]", which was a new word they had learned before the online session, or the measure word "套 [set]". The breakdown was repaired after student 9 repeated and used English to explain the meaning of "套" .

Example 13. (the second online session)

Negotiation Routines	**Transcripts**
Trigger (neither question nor answer)	St 3: 我要买一套贵西服，does that make sense? [I want to buy a set of expensive suits] St 9: Yeah, that's fine. 你看看这套丝绸(incorrect pronunciation)的西服。 [Take a look at these silk suits.]

Indicator (Explicit statement of non-understanding)	St 3: Ok, Did you just show me that suit?
Response (Repetition)	St 9： I said 你看看这套丝绸的西服。 [Take a look at these silk suits.]
Indicator (Echo)	St 3: 丝绸？ [Silk?]
Response (Repetition)	St 9: yeah, 丝绸.I'll say it again 你看看这套丝绸的西服。 [Silk. Take a look at these silk suits.]
Indicator (Explicit statement of non-understanding)	St 3: 你看看丝绸 something something 衣服？ [Take a look at something something cloth?]
Response (Repetition)	St 9: Sorry, 你看看这套 [Take a look at this set]
Indicator (Explicit statement of non-understanding)	St 3: What was that? 这套？ [This set]
Response (Target language equivalent)	St 9: These suits, this set.
Reaction to response	St 3: Yeah, yeah, this measure word

See also in example 5, 6, 8, 9, 11, 12 and 24.

2) Expansion

In order to clarify and articulate certain words or expressions that led to non-understanding, sometimes the participants attempted to expand their utterance to give more clues to their partners. In example 14, student 9 did not understand student 3's question. In order to explain it more clearly, student 3 added "我爸爸没有我高 [My dad is not as tall as me]" to express that he needed a smaller one.

Example 14. (The second online session)

Negotiation Routines	Transcripts
Trigger (as a question)	St 3: 我觉得这套大一点儿，你有一套小号的吗？ [I think this set (of clothes) is a bit big. Do you have a small one?
Indicator (Explicit statement of non-understanding)	St 9: So this one is small?
Response (Expansion)	St 3: I will repeat it. 我觉得这套大一点儿，你有一套小号吗？我爸爸没有我高。 Did you get that? [I think this one is a bit big. Do you have a smaller one? My dad is not as tall as me.]
Indicator (Echo)	St 9： The second sentence is do you have a smaller size? 你有小号的吗？ [Do you have a smaller one?]

Response (Acknowledgement)	St 3: Yeah, 对 [Right.]

Example 14 shows another negotiation routine containing expansion. Student 10 was confused about the context of student 2's utterance, so she articulated "我喜欢这件红色的旗袍 [I like this red cheongsam]" and added "我可以试一试吗 [May I try it]" to give more information to student 10.

Example 15. (the second online session)

Negotiation Routines	Transcripts
Trigger (as a question)	St 2: 我喜欢红色的. [I like the red one.]
Indicator (Explicit statement of non-understanding)	St 10: 对不起，Um，我喜欢红色的衣服，Is that what you said? Are we talking about 旗袍？ [Sorry. I like the red clothes.]
Response (Expansion)	St 2: I just said 我喜欢这件红色的旗袍，我可以试一试吗？ [I like this red cheongsam. May I try it?]
Reaction to response	St 13: 好，可以试一试 [Ok, you can try it.]

Another example of expansion see example 17.

3) Rephrasing

Only one incidence of rephrasing was found in the current data since the participants were beginners and the language at their disposal was quite limited. In example 16, student 13 did not understand student 2's answer "我觉得太好了，就买这个. [It's great! I will buy these.]". When student 13 requested for a repetition, student 2 amended her sentence as "我觉得很合适，就买这条裤子 [I think these are suitable. I will buy these pants]" rather than repeating the sentence again in order to give her more clues.

Example 16. (the second online session)

Negotiation Routines	**Transcripts**
Trigger **(As an answer)**	St 13: 你觉得这条裤子怎么样？我们有小号的。 [How about these pants? We have small size.] St 2: 我觉得太好了，就买这个. [It's great! I will buy these.]
Indicator **(Explicit statement of non-understanding)**	St 13: sorry， I didn't hear that.
Response → **(Rephrasing)**	St 2: 我觉得很合适，就买这条裤子。 [I think these are suitable. I will buy these pants.]
Reaction to response	St 13: 好 [OK.]

4) Acknowledgement

Acknowledgement is a reaction that confirms the partners' understanding is right. In the current data, acknowledgement often followed a comprehension check, which echoes Wang's (2008) study. For example, in example 17, the breakdown was triggered by student 9's inappropriate pronunciation in the sentence "Lily 躺着看书 [Lily is lying down and reading a book]". Student 3 asked him to repeat it. After student 3 translated the sentence into English to check his comprehension, student 9 actively acknowledged that student 3's understanding was correct. For more examples, see examples 7, 8, 11, 14, 22, 23, and 24.

Example 17. (The fifth online session)

Negotiation Routines	**Transcripts**
Trigger (As neither question nor answer)	St 9: Lily 躺着看小说，no, let's make it easier. Lily 躺着看书。(incorrect pronunciation) [Lily is lying down reading a novel. Lily is lying down reading.
Indicator (Explicit statement of non-understanding)	St 3： 再说一遍？
Response (Expansion)	St 9: Lily 躺着看书。 躺着 is like lying down. [Lily is lying down reading.]
Comprehension check	St 3： Oh。 Lily 躺, Lily lying down and reading a book.

Response (Acknowledge)	St 9: 对！ 很对！ [Correct.]

5) Reduction

There was only one example of reduction found in the current data which occurred during the second online session. It happened after student 3 realised his relatively long utterance might lead to student 9's non-understanding. He reduced his response to "我就买这套 [I will buy these suits] to ensure that the conversation would flow smoothly.

Example 18. (the second online session)

Negotiation Routines	Transcripts
Trigger (As neither question nor answer)	St 3 这套红色的西服也很帅， 我就买这套。 [These red suits are handsome. I will buy these.]
Indicator (Explicit statement of non-understanding)	St 9: 对不起，再说一遍？ [Sorry, say it again?]
Response (Reduction)	St 3: 我就买这套。 [I will buy these suits.]
Reaction to response	St 9: 这套西服是 175 块钱。 [These suits are 175 kuai.]

6) Target language equivalent

As mentioned in the Indicator (I) section, due to the participants' low language proficiency, they tended to resort to English when breakdowns were encountered in conversation. In the current study, target language equivalent as responses were identified in a conversation in which one participant requested for unknown vocabularies or expressions. For instance, in examples 19 and 20, the participants who did not know certain words or expressions tended to seek for assistance from their partners.

Example 19. (the first online session)

Negotiation Routines	Transcripts
Trigger (As a question)	St 2： 你好 有什么可以帮您? [Hello, how can I help you?]
Indicator (Explicit statement of non-understanding)	St 8: 我去 China 学习， What order should I put? [I'm going to study in China]
Response (Target language equivalent)	St 2: I think you can say , 我要去中国学习 [I'm going to study in China]
Reaction to response	St 8: 我要去中国学习，我想办签证。 [I'm going to study in China. I want to apply for a Visa]

Example 20. (the third online session)

Negotiation Routines	Transcripts
Trigger	St 10: 你往南走， 停， [You go south, stop.] St 1: 好
Indicator (Explicit statement of non-understanding)	St 10: 往 what's right again?
Response (Target language equivalent)	St 1: 右 [Right.]
Reaction to response	St 10: 往右拐。 [Turn right.]

See also in example 13 and 24.

IV. Reaction to Response (RR)

Reaction to Response (RR) is considered an optional part of Varonis and Gass's (1985) model. It is the last prime before the interlocutors return to the main conversation flow. In the current data, the majority of reactions to response served two purposes: (1) confirming the closure of the language breakdown (see example 22) and (2) indicating when the modified output had been achieved.

Example 21. (The fourth online session)

Negotiation Routines	Transcripts
Trigger (As a question)	St 3: 我们要去过火山吗？ [Are we going to see volcano?]
Indicator (Explicit statement of non-understanding)	St 9: Does that make sense?
Response (Rephrasing)	St 3: It doesn't. (Laughed) 要去火山吗?去看火山吗？ [Are we going to see volcano?]
Reaction to response	St 9: There you go.

In example 21, student 9 doubted the grammar accuracy of student 3's question. Student 3 agreed with this and modified the sentence by himself. Student 9's reaction to the modification acknowledged that student 3's correction was right.

Example 22. (the first online session)

Negotiation Routines	Transcripts
Trigger (As a question)	St 4: 你得先把护照办了。今天你带照片来了吗? [You need to get your passport done first. Did you bring your photo?
Indicator (Explicit statement of non-understanding)	St 5: 带，no 我有照片，is that 带 to bring？ [To bring. No, I have photo.]

Response (Acknowledgement)	St 4: Yeah， 带
Reaction to response	St 5：今天我带照片了。带照片来了。 [I brought my photo today.]

In example 22, student 5 sought for student 4's help to confirm the meaning of "带 [to bring]", which was a new word that both of them had just learned. After student 4's response, student 5 successfully produced the modified output.

V. Comprehension checks

In Varonis and Gass's (1985) model, comprehension checks can optionally take place between the four primes. In example 23, student 3 wanted to confirm the meaning of student 9's sentence "Lily 带着本书回家". Due to the time limit in the breakout rooms, he used English instead of the target language. However, student 9 still insisted on replying in Chinese.

Example 23 (the fifth online session)

Negotiation Routines	Transcripts
Trigger (As neither question nor answer)	St 9: Lily 带着本书回家 St 9: Lily 带着课本回家 [Lily is taking a textbook going back home.]
Indicator	St 3: Lily 带？ [Take]

(Explicit statement of non-understanding)	
Response (Repetition)	St 9: Sorry， Lily 带着本书回家。 [Lily is taking a book going back home.]
Comprehension checks	St 3: Lily brought the textbook home?
Response (Acknowledgement)	St 9: 对。 [Correct.]

Another type of comprehension check was visual support, which was reported in Wang's (2008) study. As mentioned in section 4.2.1, video and audio are not the only channels through which the participants can communicate. The data collected showed that other functionalities, such as the whiteboard and text chat, also played an essential role in facilitating learners' negotiation of meaning in the task completion processes.

In example 24, students 11, 12 and 15 were working on the map shown on the whiteboard. Student 12 did not recognise the name marked on a building, so she used the pointer on the whiteboard and pointed it to the partner. With student 15's assistance, she understood and used it when showing directions to student 11. Student 11 also used the pointer to confirm the word "医院 [hospital]" in their conversation.

Example 24. (the third online session)

Negotiation Routines	Transcripts
Trigger (As a question)	St 15: 商场在哪儿？ [Where is the shopping mall?]
Indicator (Visual indicator)	St 12: 先往前走，停，商场在 what is this one? (*Pointing on the WB*) [Go straight first, stop, the shopping mall is …]
Response (Target language equivalent)	St 15: 医院 [Hospital]
Reaction to response	St 12：Oh 医院， 商场在医院的南边。 [The shopping mall is to the south of the hospital]
Indicator (Explicit statement of non-understanding)	St 11: 请再说一遍. [Please say it again]
Response (Repetition)	St 12： 商场在医院的南边
Indicator (visual indicator)	St 11: 医院？ This one? (*Pointing on the WB*) [Hospital?]
Response (Acknowledge)	St 12: 对！ [Right!]

Similarly, in example 25, student 9 and student 3 were carrying out the showing direction task. Student 9 used an new expression “过一条街 [crossing the street]” that we had not learned in class before. After mentioning it twice in the conversation, student 3 tried to learn it by asking student 9 to write it down for him. At first student 9 put it in the text chat. For some reason, student 3 could not see it. Then student 9 decided to directly write it on the whiteboard. There are other examples in the data. The participants’ written communication was firstly conducted via the text chat. If there were more than two participants in a group, they would use the whiteboard.

Example 25. (The third online session)

St 9: 你往左拐，再过一条街，crossing the street, [You turn left. Then cross the street.]

St 3: Oh, this is how do you say crossing the street ,过一条街。 [Cross a street.]

]St 9: 好、你想去图书馆吗？你往左拐，走过一条街 (incorrect pronunciation) ，停，书店在你的左边。

[Ok, do you want to go to the library? You turn left, cross the street. The bookstore is one your left.]

St 3： how do you say cross the street?

St 9： I put in the text chat, hold on! (Tying in text chat)

St 3: Sweet. Could you type cross the road?

St 9： Yeah, it’s in the text chat. 走过一条街。 [Cross a street.]

St 3： I don’t see it in the text chat.

St 9: Really? I can write it down (Typing on the WB)

Analysis of questionnaires

In the follow-up questionnaires, the participants were asked to write down expressions, grammar structures, and vocabulary they remembered after the online sessions. There were three major types of answers. Firstly, these included the original sentences they used in the tasks. For example*"司机开着车送 Lily 去医院 "[The driver drove Lily to the hospital.] (in the fifth task); "wang qian zou, zai wang you guai. dao tushuguan yihou, wang zuo guai. yinghang zai gongyuan nan bian" (sorry, I did this in the library at uni and there was no Chinese input)" [go straight, then turn right. Turn left when you arriving at the library. The bank is to the south of the park] (in the third task)*. Secondly, there were grammar structures they had practised in the tasks. For example: *S＋被（叫、让）＋O＋V＋result (passive voice in the 5th task); "离…", 在… direction 边 (showing directions in the third task).* Thirdly, they identified frequently used expressions in the task; for example: "*duo bu4 qi1 wo3 lai2 wan3 le= sorry, i'm late (pinyin is used in the original answer); "Zai shuo yi bian [Say it again]"*.

6.3.2 Improvement in Chinese proficiency

In the current study, there were three main concerns that fall into the category of language learning potential, including focus on form, improvement in Chinese proficiency, and collaborative learning. The previous section discussed the learning potential in providing opportunities for focus on form. This section will present two main data sources collected from the researcher's observations and learners' perceived improvement in the target language.

The instructor's observations

Throughout the five online sessions and the two online sessions in the first research cycle, I noticed that due to lack of conversation practice in the face-to-face class, students' listening and speaking proficiency was limited. In the first two online sessions, the majority of them were able to read and write if the textbooks of questions were given; however, it was difficult for them to produce their own sentences or communicate in a dialogue. Therefore, the conversational-style tasks were designed to serve the purpose of facilitating their spontaneous reliance and communication competence. Furthermore, their inappropriate pronunciation was another main trigger of communication breakdown. In the conversations, as I noticed, an overwhelming occasion of language problems were caused due to incorrect pronunciation. Normally, the interlocutors' reaction to this was to request the partners to repeat the utterances. Most of the time solutions for this kind of breakdown rely on the peers' or the tutor's assistance by providing written or verbal pronunciation correction, which may draw the participants' attention to the form of the target language. Take student 9 for example: in the first three online sessions, he was very enthusiastic about participating in this project. For instance, he was always the first student logged into the online sessions and he could be heard consulting the textbook and his notebook whenever he encountered non-understanding. However, incorrect pronunciation and relatively low listening ability affected the communication between him and his partners (for instance, examples 1, 14, and 29). Thanks to his partners' help and his own efforts, a great noticeable improvement in terms of pronunciation and communication competence was observed in the last two online sessions. Not only could he interact with other students more smoothly, but also he became more confident using the target language. The excerpt of his interview can be seen in the following section.

1) Learners' perceived improvement in the target language

Data analysis of the interviews and the follow-up survey indicated that the participants perceived that their Chinese proficiency had improved throughout the online sessions, particularly in listening and speaking.

In the pre-session survey, participants were asked to rate the aspects of Chinese they wished to improve throughout the online sessions. Figure 6.6 illustrates the top three aspects of Chinese that they expected to improve: "grammar", "speaking ability", and "conversation tactics" (*n* = 15), followed by "fluency" and "listening ability" (*n* = 14).

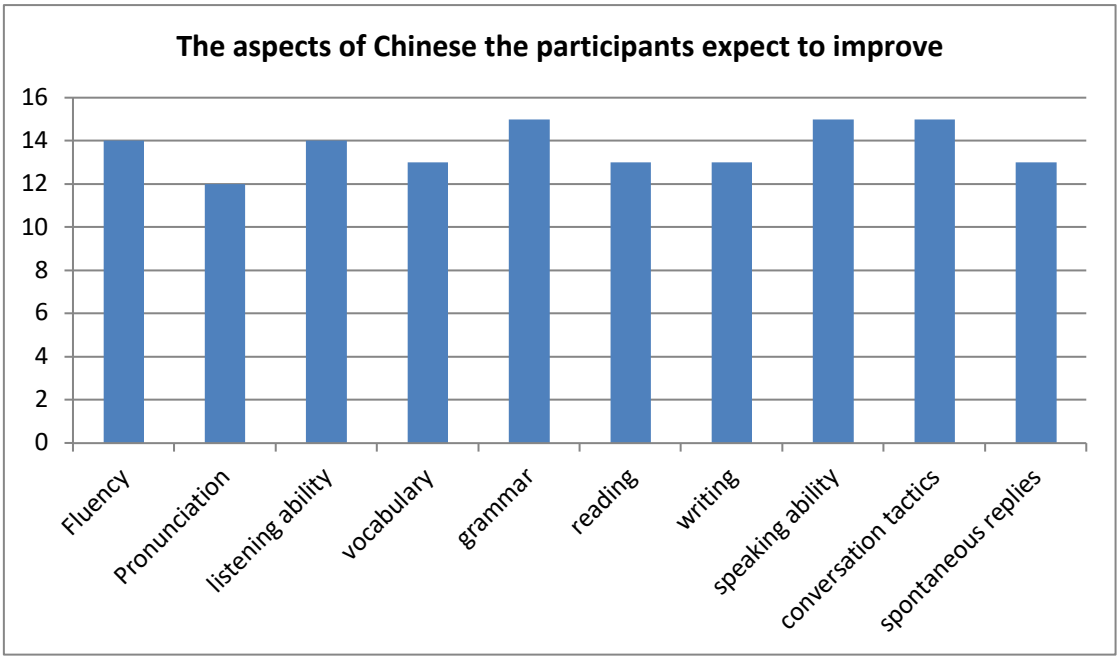


Figure 6.6 The aspects of Chinese the participants want to improve in the pre-session survey

In the post-session surveys, the participants rated aspects of the target language they believed had improved in the five online sessions. It can be seen from Figure 6.7, the entries for "pronunciation", "listening ability", "speaking ability", "grammar", and "conversation tactics" had the highest number of votes (*n* = 10), followed by "spontaneous replies" (*n* = 9).

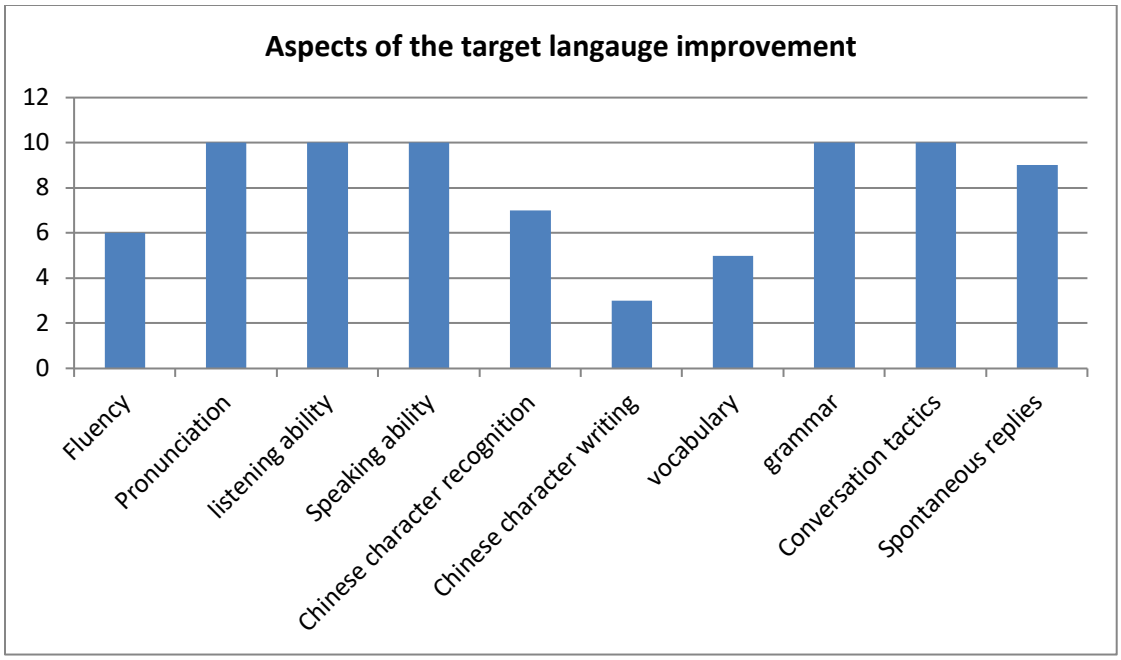


Figure 6.7 The aspects of the target language improvement in the post-session survey

Data collected from the in-depth interviews after the five online sessions showed that the participants all perceived that their language had improved in terms of fluency, listening and speaking skills, as well as communication and comprehension competence.

Student 9 mentioned in the interview as follows:

> *I think the fluency has been improved for certain. And also I'm being able to apply the grammar structures in practice. That's just a big thing for me… If you ask me that question six months ago, I probably would have said no, but now that I have really successful sort of progression with it… I feel more confident when I was responding as well.*

Student 3 stated that his Chinese listening comprehension ability had been boosted; his interview excerpt is shown as follows:

Like now if you speak in Chinese, I kind of understand most of it, but before, definitely no. Overall, I still kind of understand what she/he's trying to say. (You can grasp the meaning?). St 3: If I didn't have the online session, then maybe not, because there's less practice. Because some other people in our class, they don't totally understand it, whereas I do.

Although different from the results of the previous studies, a number of participants appreciated their improvement in Chinese character recognition. Throughout the online sessions there were more opportunities for them to be exposed to Chinese characters.

6.3.3 Collaborative learning

The aim of this study was to examine the effects of the web-conferencing environment and the collaborative tasks on facilitating learners' second language acquisition and communicative competence. One of the major concerns in this study was whether collaboration occurred in peer-peer interaction in the task completion activity.

There were a great number of examples in the data showing that collaborative learning took place in pair or group work in the current study. In example 26, student 14 explicitly requested student 3's help when she did not know how to say "study" and "apply" in the target language. When she could not finish her sentence, student 3 tried to guess what she was about to say based on the information he had. Moreover, student 3 pointed out that student 14 should add "我要" in that sentence to express what she wanted to. Although student 3 rendered his assistance in English, he successfully helped student 14 complete her sentence "我要去中国，我要办签证。[I'm going to China. I want to apply for a visa.]"

Example 26. (the first online task)

St 3: 你好 有什么可以帮您？ [Hello, how can I help you?]

St 14：How do you say study, apply?

St 3: 学习 办 [Study, apply for]

St 14:我去中国学习，办… [I'm going to study in China. Apply…]

St 3: 签证? [Visa]

St 14 :Right 签证，我办签证 [Right, visa. I apply for a visa.]

St 3: I think you have to say I want to ,like 我要 [I want to.]

St 14: Oh 我要去中国，我要办签证。[I'm going to China. I want to apply for a visa.]

In example 27, student 3 noticed that student 14 confused "天" with "日", so he asked her to clarify it. After that, he also corrected a grammar mistake in her sentence. On reviewing the current data, abundant examples of peer corrections were found. Part of the reason for this was because the participants were instructed by the teacher to help and provide correction to peers in the completion of the tasks. While observing the learners' group work, I consistently encouraged them to actively help their partners, which in turn fostered their own language and communication development.

Example 27. (the first online task)

St 3: 出生年月日？ [Date of birth]

St 14: 1992 年 6 月 10 天 [10th June, 1992 (incorrect date form)]

St 3: you mean 日？ [Day]

St 14：Yeah, How do I say this "I need to change money"?

St 3: 换钱 [Change money]

St 14: 我换钱. [I change money.]

St 14: put 得，我得换钱 [need to. I need to change money.]

St 3: Yeah, 我得换钱。 [Yeah, I need to change money.]

In example 28, students 5 and 6 were working on the 3rd task, showing direction on a campus map. Student 5 kept saying “往下边走 [go down]” , which can be understood on the map but not appropriate in a face-to-face conversation. Although student 6 understood the instructions, he still elaborated the correct form of expression to student 5. This type of negotiation was not triggered by a non-understanding or unknown lexical or syntactic item. However, throughout the collaboration, both the students’ attention was drawn to language form, which was conducive to their SLA.

Example 28. (the third online session)

St 5: 你往下边走。 [You go down.]

St 6：下边？ [Down?]

St 5: 下 [Down.]

St 6: You mean down?

St 5：Yeah, like back, down.

St 6: It’s like 左， 前 and like [Left, front]

St 5: like 你往下边走 [You go down.]

St 6: You can say like 你往南走 [You go south.]

St 5: Oh, ok, 你往南走，往左拐， 教室在公园对面。

[Ok, you go south, and then turn left. The classroom is opposite to the park.]

St 6: 教室.（Typing “教室”on the WB） [Classroom]

In the 3rd task, student 10’s sentences “你往北走，你往西走 [You go north, and go west]” were grammatically correct, but lacked conjunction words. Student 1 articulated the problem and suggested that student 10 use “再 [and then]” to link the two clauses. According to Smith (2003), “metalinguistic talk may prove helpful in uncovering the root of the problem” (p. 47), although it may divert time away from the task completion. In this example, “先…再… [first…, and then…]” was the key grammar structure that the students learned in class. The negotiation process indicated that the acquisition did take place.

Example 29. (The third online session)

St 10: 好。你参观图书馆 [Ok. You’re going to visit the library.]

St 1: 图书馆在哪儿？ [Where is the library?]

St 10: OK, 图书馆，你往北走，你往西走。[The library. You go north, and go west.]

St 1: When you give the second direction, you need to say 再，like go again 再往。

[Then.]

St 10: Oh, so go first.

St 1: Yeah, so we start with 先往，and you want to give another command, 再往 direction go。[First, and then.]

St 10: Ok, 先往北走，再往西走。停，再往南去。对。

[Ok. Go north first, and then go west. Stop, and go south. Right.]

In addition, results from the interviews and post-session surveys showed that the implementation of tasks in the web conferencing-based online environment has great potential in stimulating collaborative learning.

Questions 14 in the post-session survey, participants were asked to choose between one-to-one and many-to-many study. Only two out of 16 students chose one-on-one. The rest of them preferred group work and their reasons are shown in the following excerpt from the survey:

> *Learning a language seems to be much more effective for me when doing it with a group. That way you can feed off the other students. It works very well in group situations, especially with the breakout rooms.*
>
> *A group discussion is more preferable due to the possibility of creating a conversation in Chinese rather than a one-on-one, which may provide improvement in writing, reading and listening ability. Furthermore, a group discussion is less confronting, as you know the other students are at a similar level to you.*

According to the participants' answers in the post-session survey, they believed that peer collaboration, which resembled a class setting, provided them with more opportunities for feedback and explanations. Peer interactions allowed them to support each other in a similar way. Working with other students helped to create a less pressured and more engaging environment, in which they felt less distracted and more willing to contribute to group discussion.

In the survey, the participants were asked to compare one-to-one and many-to-many study. One participant believed that both one-to-one and group study were useful in different ways:

One-to-one would be helpful when a student is falling behind and requires tuition to catch up. Many-to-many was very useful for a general classroom environment where everyone was more or less up to date, with no one needing more help than anyone else. I personally preferred the many-to-many format, as the classroom setting assisted in my motivation to learn, and willingness to participate.

In addition, group work seemed to contribute to creating a sense of community, in which the participants felt safe to share and help each other. As student 9 mentioned in the in-depth interview after the five online sessions, having a partner that he can work with was conducive to his task completion:

It's really great with student 3, because I feel safe in a sense. I didn't feel fool or anything. So maybe having someone that you do with all the time, it works. Like a buddy assisted I guess.

However, one student mentioned the disadvantage of group work; that is, having an unconfident, shy, or lower proficiency partner may not work as effectively as one-to-one (learner-teacher) interaction. Based on my observations, I usually pay more attention to those groups that have a relatively weak learner. Most of the time, with the tutor's help and with peer assistance, the majority of groups were able to successfully complete the tasks.

Tutor's intervention

Salmon (2003) proposes the role of the tutor in assisting learners' interaction in online conferring as a five-stage model. The five independent stages include:

- Access and motivation;
- Online socialization;

- Information exchange;
- Knowledge construction; and,
- Development

Salmon (2003) emphasises on the critical role of the tutors, especially in stages 4 and 5. Tutors "pull together the participants' contributions by, for example, collecting up statements and relating them to concepts and theories from the course. They enable development of ideas through discussion and collaboration" (2003, p. 42).

In the current study, as an instructor, I observed the learners' discussions in groups and occasionally intervened in their interaction when they needed assistance. The degree of my intervention varied depending on the extent of the learners' participation and their achievement in the tasks. As Salmon (2003) states, the tutor's main role is to ensure "meaning making" rather than "content transmission" (p. 52).

As shown in example 30, when I was observing student 3 and 9 in the breakout room, I noticed that the breakdown was triggered by student 3's incorrect pronunciation of "就快". The students attempted to use text chat to clarify the characters but failed. In order to immediately correct student 3's pronunciation, I interrupted their negotiation and gave them verbal (via microphone) and written (via text chat) correction and translated this into English. Further, I corrected a syntactic mistake that student 3 made in his previous utterance. After student 3 modified his sentence following the tutor's correction, student 9 also pointed out a mistake that student 3 had made by adding "上了[onto]". Eventually, with both the tutor and student 9's assistance, student 3 was able to produce the sentence "撞到自行车上了[Hit the bicycle.]".

Example 30. (the fifth online session)

St 3: Lily 就快撞去自行车上了。

[Lily is about to hit the bicycle.]

St 9: 就快？

[Be about to.]

St 3: yeah，就快。(incorrect pronunciation)

St 9: 较快？

St 3: No, 就快 as in … I can’t type in.

Tut: I just sent you the text chat.就快, Be about to

St 3: Lily 就快。Second tone?

Tut: Instead of 撞去，it should be 撞到。

[hit (to)]

St 3: Yeah! Yeah! 到! 撞到自行车上了

[Be about to hit the bicycle.]

Tut: 非常好。

[Very good.]

St 9: 就快撞到自行车了？

[Be about to hit the bicycle.]

St 3: 上了。

[onto]

St 9: 自行车上了。

[(Onto) the bicycle.]

St 3: Yeah, so the verb and the result together, is 撞上,yeah? Including by the bike?

撞到自行车上了。

[Hit the bicycle.]

Examples of the tutor's help were abundant in the current data. However, most of the time, I observed the learners only without intervention. Assistance was provided when it was requested by the learners or in situations when they were not able to resolve the problem by themselves.

6.3.4 Summary

This section presented analyses of the data from the perspective of language learning potential of the collaborative tasks designed for the web-conferencing environment. Three main aspects were addressed including: focus on form, improvement in the target language, and collaborative learning. Abundant examples have shown that the tasks created opportunities to draw the learners' attention to focus on form. Moreover, it has shown that throughout the online sessions, the participants perceived that their Chinese proficiency had improved in terms of listening, speaking, and communicative competence. The data collected also demonstrated that pair or small group tasks can facilitate learners' collaborative learning.

6.4 Learner fit

As discussed in section 4.4.3, learner fit concerns two major aspects: 1) The fit between the level of the difficulty of the tasks and the level of proficiency of the learners; 2) the fit between the amount of opportunities for engagement or interaction with learners' expectation.

6.4.1 The difficulty of the tasks Vs the learners' Chinese proficiency

1) Participants' Chinese proficiency

All the participants in the second research cycle were on-campus students at Macquarie University who had finished one semester of Chinese language study. There were three international students among the 16 participants. Two female students came from Korea and one female student was from Vietnam. The rest of them were all local Australian students whose first language was English. Six of the students also participated in the first research cycle in the first semester.

The participants' Chinese language proficiency was varied in terms of listening, speaking, reading, and writing. However, due to lack of conversation practice in class, the majority of them were weak in spontaneous communication. Their speaking responses in class relied heavily on the written materials in the textbook rather than the utterances they produced themselves. For example, student 1 and 2's language proficiency was comparatively higher among the participants in terms of reading, writing, and grammar, but they still struggled using Chinese to express themselves before attending the online sessions. Students 9 and 10 who were weaker in Chinese were not very confident in participating in this study at the beginning.

2) Participants' perception of the level of difficulty of the tasks

According to the data collected from the post-session surveys and the in-depth interviews, the participants' perceptions of task difficulty were varied depending on their Chinese proficiency, topic familiarity, and task instructions.

Results from the follow-up surveys

In the surveys, a 5-point Likert scale was employed in question 3, which asked participants whether the level of task difficulty was appropriate. The results showed that 12 out of 18 students chose “strongly agree”; the remaining four students chose “agree”.

Question 5 required the participants to compare the difficulty among the five tasks. Figure 6.8 illustrates how more than half of them thought that the first two tasks were at the moderate level of difficulty (n = 9 and n = 7). In comparison, more students believed that the fourth task was difficult (n = 7), which is higher than the number of entries for “neutral”. The number of the students who thought the fifth task “neutral” and “difficult” was even. Only one student considered the third and the fifth task to be very difficult. On the contrary, two students thought these two tasks were very easy.

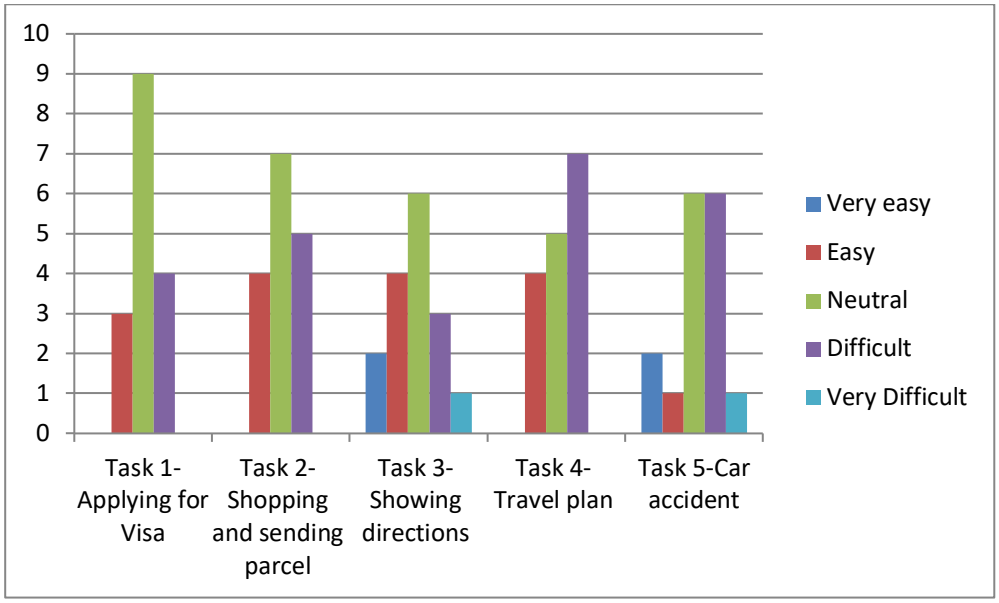


Figure 6.8 The participants’ perception of the level of difficulty of the tasks in the follow-up surveys

Results from the interviews

In the interviews, the participants' perceptions of the level of difficulty were diverse. All of them confirmed that the tasks were challenging but still within their grasp. Some students expressed that, at the beginning, they needed to spend a short time (around two minutes) to work out what they were expected to do in the tasks. For example, Student 5 said, *"I like the 3rd and 5th online sessions because they were straightforward and we knew what to do. No much thought in deciding things"*. However, all of them admitted the tasks were challenging in a good way. Student 1, whose Chinese proficiency was comparatively higher than that of other students, commented in the interview as follows:

> *The last one was definitely challenging. (Good thing or bad thing?) Good thing, good to show the unknown things. The fourth one was manageable but starting to go difficult. The first three ones were very understandable and easy to go.*

Students 9 and 10, who were weaker in Chinese, said that all the tasks were difficult since they involved extract vocabularies, and it was a bit difficult for them to work out the tasks within a limited time. Therefore, they had to seek help from their partners. Student 12 was a female student from Korea, and she mentioned in the interview that the difficult tasks were good motivation and forced her to study harder. She said, *"[When I encounter non-understanding] I prefer to use the textbook because I know where the words in it. And if it doesn't work, during the task, I prefer to ask my partner, other than that, Guo laoshi will be always there to help"*.

6.4.2 Participants' perception of their participation in the tasks

In terms of participation, the majority of the participants believed that they engaged in the online sessions. Their feedback suggested that learners' participation increased when they were used to

the online learning environment and higher academic rewards made participation more appealing.

Results from the follow-up surveys

In the follow-up surveys, 11 out of 16 students indicated “strongly agree” when asked if the tasks were interesting, and nine students also strongly agreed that they enjoyed doing the tasks with their peers.

Results from the interviews

The participants enjoyed the last three sessions more as their language proficiency had gradually improved and they were more used to the multimodal environment. St 10 commented in the interview: “*I was particularly engaged talking in the last few sessions because I was more used to it. (How about the other sessions?) Because of my language”*. Student 9 mentioned that he engaged doing the jigsaw since “*naturally you do one step, then the other person does the other step, then you swap. That was very good.”*

Moreover, in the post-task stage, all the groups were required to present their work in the breakout rooms, which made them pay more attention to the tasks. Student 12 commented in the interview: “*even my task is finished and my presentation is finished in online session you still get to listen to other people's presentation and you learn from them. So it's useful in every way”*. Student 2 mentioned that the teacher’s questions after the presentation encouraged her and the partners to concentrate on the tasks, “*because we don’t know when you’re going to ask us questions. I always have to be listening*”.

6.4.3 Time limitation

As discussed in section 4.3.1, whether enough time is given to learners to plan and complete tasks is one aspect to consider when designing tasks. In the current study, the participants were asked to finish each task in twenty minutes. Extra time was allowed when it was requested by the students.

The data collected in the interviews showed that the majority of the participants agreed that they had sufficient time to complete the tasks. Some students directly sought the teacher's help using the raise-hand tool. Student 10 said in the interview, "*often when we were running out of time, it seems like other students didn't finish either. Guolaoshi (Teacher Guo) just extended time to 5-10 minutes till we all done that*". Students whose language proficiency was higher than others, such as students 1 and 2, expressed that they were always able to finish the tasks before time was up.

Student 5 pointed out that it was great to have the teacher there to monitor the process and remind them of the time "*because being at home is so easily get distracted*".

6.4.4 Summary

To sum up, the participants perceived the tasks in the study to be challenging in a positive way. Although the participants' level of language ability varied, all of them felt engaged when collaboratively working with their peers and the majority of them were able to successfully complete the tasks within the given time.

6.5 Authenticity

When designing tasks, authenticity is one of the most important considerations. Egbert (2005) describes an authentic task as "one that learners perceive they will use outside of class in their real world or that parallels or replicates real functions beyond the classroom" (p. 6) and he

argues that task authenticity is one of the conditions for optimal language learning. Chapelle (1999) believes that there are two ways to evaluate tasks authenticity: (1) evaluator's judgments in terms of the features of the CALL tasks and (2) learners' perceptions of task authenticity as well as their performance. The data was collected through the instructor's observation, the follow-up surveys, and the in-depth interviews.

In the current study, specific topics, which might be closely related to learners' real life, were selected. For example, applying for a Chinese visa, filling out a visa application form, and asking about currency exchange rates; how to ask for and show directions; selecting clothes and choosing an appropriate way to send mail to China; making a Christmas travel plan, and so on.

The aim of this study was to reinforce the vocabularies and grammar structures that the participants learned in class and to put these into practice to facilitate their communication competence. The topic selection was based on the textbooks, whereas, when designing the tasks, I made a number of adaptations to strengthen the relationship between the tasks and their real lives. For instance, the map in task 3 was adapted from the campus map at Macquarie University; in task 2, participants were asked to choose clothes for their parents, so they needed to take into account their parents' size and colour preferences.

Results from the follow-up surveys

In the follow-up surveys, there were 10 students who strongly agreed that what they learned in the online sessions was useful outside of class. The number of entries for "agree" was four. Eight students strongly agreed that what they learned in the online sessions was needed outside of class. The data shows that the majority of the participants perceived the tasks as useful and authentic in their real life.

Results from the interviews

In the interviews, all the participants confirmed that the tasks were practical in different ways. Student 1 commented in the interview:

> *Really useful. So useful I mean like applying for a visa in China, knowing how to buy stuffs, asking for directions, just looking at the three along, I think that's quite useful. If I am in China, the direction it's always very helpful as for tourists.*

Student 5 wanted to be an interpreter and she was planning to live in China for a year after graduation. She believed that the first task (applying for Chinese visa) was very useful. Further she said in the interview "*the shopping clothes and direction are definitely useful, especially the directions. If you're going to a country and don't know where to go, you have to ask someone*".

Student 9 felt more confident in terms of listening, speaking, and conversation ability throughout the online sessions. Before participating in this study, he was not very confident in his Chinese. At the end of the study, he mentioned that he would like to apply for the language exchange program and planned to study in China for a year. He commented in the interview:

> *It certainly makes you feel the practical aspect. It makes you want to apply. Like it makes you a lot more eager to go [to China]. [Student 3] is going to China this year, makes me really want to go so badly. You feel more comfortable, more prepared coz you know it's not that hard, like just putting the sentences together… Now I'm more prepared to go to China. If I can go this June that would be great. I'm looking forward to that. Maybe that's pretty unique for me than other students, but that's good.*

When asked whether they had applied what they learned in the tasks outside of the class, a number of them expressed that they had not due to their limited language proficiency and lack of Chinese friends.

Particularly, there were two students who shared their stories of talking to Chinese people in real life.

> *I was at a Chinese convenience store. I don't remember what I was buying, but I went to the counter and said "这个多少钱 [How much is it?]. And then the lady said how much it was. Then I gave her the money and she said something like, "I like your jumper." And I said "谢谢 [Thank you]. It was really simple stuff. I think buying things, especially if you go to China for exchange, buying things, learning how to say how much something is, that sort of thing is useful in China.*

Student 12 reported her experience of talking to a Chinese lady at a train station in Sydney,

> *Actually, I went to shopping the other day and I was waiting for the train. There was a Chinese lady sitting next to me. She kept speaking Chinese. If I didn't learn Chinese I will just ignore it and sit there quietly, but when she asked me in Chinese and I can talk back in Chinese. I think it's very interesting experience and because I learned it and I get to use it in real life. (What topics?) She was a Chinese teacher when she was in China. I said to her my level is not really good. So she started with easy things, like pinyin, the weather and the how long you have been staying here and have you been to China, Like 去过中国吗？ And the direction about where do you live, how to get there. So we basically talked the topics in the tasks. [in the 3rd and 4th task]*

This section presented the data regarding the authenticity of the tasks. Although all the participants in this study were on-campus students and did not have many opportunities to speak to native Chinese speakers, they found strong relevance between the tasks and their life outside of the class.

6.6 Positive impact

In the current study, positive impact encompasses any impacts of the tasks and the web conferencing environment on the participants except language learning potential. This section will address the impacts in terms of the following two aspects: (1) the impact of the multimodal environment, and (2) the impact on learners' confidence building.

6.6.1 The impact of the multimodal environment

Results from the follow-up surveys

In the follow up surveys, the participants were asked how long it took them to feel comfortable in the online environment. One student voted for "I was immediately comfortable with the environment". Two students got used to the environment after the training sessions. Four and three students answered that they felt comfortable after attending two and three sessions, respectively (including the training session).

Results from the interviews

In the in-depth interviews at the end of this study, students were invited to share their learning experiences, in particular their feelings regarding the multimodal environment. The majority of them said that in the beginning, it was fairly overwhelming because of the software, the audio connection, and the tasks, especially for the new users. However, after becoming familiar with the interface and the structure of the online sessions, they became more active and willing to

participate in online discussions. They felt they were able to manage the multitasking interface and enjoy the online interaction with their peers. Student 9 said in the interview:

> *It just like you invest some time before and then really focus. I mean like the first time like dealing with sound, it took me like three lessons before I worked out you have to click the thing to talk. I become really relief it works now. I feel more confident when I was responding as well. When you asked me questions, I feel like I can click the thing and jump in and I know what's going on, it's good."*

6.6.2 The impact on confidence building

Results from the follow-up surveys

In the follow-up surveys, 10 participants confirmed that attending the online sessions had contributed to building their confidence in speaking and listening. Nine of them believed that it helped to reduce their anxiety and increase the motivation in learning the target language. More than half of the participants enjoyed having fun with peers and were more willing to communicate in the online sessions.

Results from the interviews

The data collected from the interviews has shown a number of positive impacts on the participants in terms of confidence building, including:

- it created a less pressured environment to learn and practise the target language;
- learners felt more confident using the target language;
- learners felt more confident using technology to study a foreign language; and,
- the positive feedback and encouragement received from peers and the teacher made them feel more confident.

Student 10, who was not very confident in his Chinese, commented in the interview *"there is less pressure when you in your room in front of computer than in class"*.

Student 9 believed that it made him more willing to use technology to learn a new language.

> *In the past I think people would say web cast or something I wouldn't want to do it. Having done this, I know how it works out. It's straightforward. The familiarity. I think you certainly get more confidence. I feel more prepared to contribute in Chinese.*

Further, he stressed the key influence that the positive feedback he received from the teacher played an important role on building his confidence in Chinese learning:

> *You said "非常好！[very good!]" I was like Yeah! (claps) Good. (Like positive feedback?) Yeah! The positive feedback. There is nothing better than I said something, then you was like "St 9, 非常好！" Yeah, that feels so good. Encouragement, exactly, you get that encouragement coz obviously that feedback, that's sort of presentation aspect. That's really good.*

Student 3 confirmed that being able to complete a task without the teacher's assistance was also very helpful in boosting his confidence:

> *It was positive feeling, because you just feel good about being able to complete the task, so if you complete with satisfaction, I guess, I can do it. Since you did it, you know you can do it, so you feel better because you can do the task. (Like achievement?). Yeah, achievement, yeah, sense of achievement.*

Apart from the abovementioned two aspects, the learners also appreciated that they had more opportunities to study between lectures and tutorials. Student 12 commented in the interview:

> *I strongly think it's helpful. Not only for the students and teacher to collaborate, it's also that when we learn on Monday, we do the online session on Wed, it's more over than repeating, we can study prepare further for the Tutorial on Friday. So you don't forget during the week time.*

Furthermore, being able to attend a class at home instead of travelling between the university and their home was another positive influence of the online sessions.

> *Personally I prefer to interact with people instead of using technology. But there is a beneficial using technology is that I don't have to waste my time going to school and coming back. For me, I live far away, so it takes me about 3 hours to preparing go to school. Because of the online session, the three hours is saved so I can study by myself to attend the online sessions. So it's more of saving time.*

The data presented in this section shows that the implementation of the tasks in the web-conferencing environment has two major impacts on the participants. Firstly, after being able to manage the multitask software, they were more willing to communicate with peers and the teaching online. Secondly, the positive feedback from the peers and the teacher helped to create a less pressured learning environment, which contributed to boosting their confidence in different ways.

6.7 Summary

This chapter presented the preliminary analysis of the data in the second study cycle. The results collected from my personal observations and the participants' feedback from the follow-up

surveys and the in-depth interviews confirmed that the technical capacity of the web-conferencing tool, Blackboard Collaborate, is reliable and sufficient for supporting teacher-learners' multimodal interaction in the online sessions. The designed collaborative tasks have shown great pedagogical value in facilitating learners' SLA in an online environment.

Regarding the evaluation criteria proposed in the current study, the main findings are summarised as follows:

Practicality: Blackboard Collaborate was considered to be easy to install and use. Both audio and video quality achieved a satisfactory level; however, the participants in the current study did not appreciate the use the web cam, although other features, such as the whiteboard, text chat, and breakout rooms were considered useful in task completion.

Language learning potential: (1) The results confirmed that the tasks created opportunities to draw learners' attention to the form of the target language; (2) the participants perceived that their had language improved in terms of listening, speaking, and communicative competence; and, (3) incidences of collaborative learning were identified in the peer-peer interaction.

Learner fit: (1) The participants believed the level of difficulty of the tasks and their language proficiency level was fitted; and (2) they felt engaged in the tasks with their peers.

Authenticity: The majority of the participants did not have many opportunities to communicate with Chinese people but they found the topics and the tasks were strongly related to real life.

Positive impact: (1) The participants found that they were able to multitask in the multimodal environment to communicate with others; and (2) they were encouraged by the positive feedback

from their peers and the teacher and it contributed to boosting their confidence in language learning.

To sum up, all the participants confirmed that the affordance of Blackboard Collaborate was sufficient in supporting online communication between their peers and the teacher. They perceived that the tasks designed were conducive to facilitating collaborative learning and their SLA. Further discussion encompassing the evaluation in the two study cycles will be presented in the following chapter.

7 Chapter 7 Discussion, implication and conclusion

7.1 Introduction

This chapter will further discuss the findings reported in chapters 5 and 6, with the purpose of answering the main research question of the current study:

How can a task-based language teaching (TBLT) approach be implemented in a web conferencing environment to facilitate learners' SLA?

In order to answer the central research question, two cycles of action research were undertaken. The first stage of this study aimed to investigate how the teacher and learners adapt themselves to a synchronous multimodal environment and how they employ multiple modes (e.g., video, audio, text chat, voting, raised-hand function, emoticons, and whiteboard) to communicate and negotiate meaning with each other. The first research stage was designed to answer the first subsidiary question:

> **How do the teacher and students use multiple modes to communicate with each other in a task-based online class?**

Moreover, in order to trial and preliminarily evaluate the tasks designed for collaborative language learning, learner-learner interactions in the web conferencing environment were examined to answer the second subsidiary question：

> **What are the characteristics of negotiation of meaning in web conference-supported language learning?**

Based on observations and reflections in the first stage, and with the aim to evaluate the web-conferencing tool and the appropriateness of the five collaborative tasks designed for the study, the second research cycle was carried out to answer the third subsidiary question:

> **What are the pedagogical benefits and limitations of applying the web conferencing tool in a task-based introductory Chinese online class?**

In the second stage, the criteria, which were based on Chapelle's (2001) and Wang's (2004b) studies, were developed and implemented to evaluate the technological capabilities of the software as well as the limitations and pedagogical value of the collaborative tasks.

In each of the following sections the main findings in the two research stages will be discussed, followed by a review of whole study.

7.2 Language learning online via Blackboard Collaborate

The study innovatively implemented collaborative tasks in a multimodal environment to investigate how the participants employed multiple modes to make meaning online and how the students negotiate for meaning when conducting collaborative tasks (Coleman et al., 2010; Hampel, 2014; Stockwell, 2010). The current study quantitatively analysed learners' and the teacher's multimodal interaction in the pre- and post-task stages via the web conferencing tool. Moreover, the participants' perceptions of the multimodal environment and the tasks designed were elicited in in-depth interviews and post-trial surveys.

7.2.1 Learners' perception of the multimodal learning environment

In section 5.2.1, the researcher firstly presented the results from the post-trial surveys, which aimed to elicit the participants' perceptions of the multiple tools. In the follow-up surveys, the participants were asked their opinions regarding the benefits and limitations of using Blackboard

Collaborate to learn Chinese online and the tasks that were designed. According to the data collected via the surveys and interviews, participants' feedback about the multimodal environment was positive and it can be summarised in three aspects. First of all, it enabled them to create a collaborative learning environment, which supported interaction with both the teacher and their peers. In the online sessions, the students could get together in the main room with the teacher, which contributed to creating a sense of traditional classroom atmosphere and they could benefit from the feedback from the teacher. Whereas, in the breakout rooms, they managed to collaboratively carry out a task with one or two partners. Secondly, with the convenience of the web conferencing tool, they could have oral-visual interaction with the teacher and other students, which creates opportunities for dispersed distance learners to study together (Anastasiades et al., 2010; Wang, 2005). Thirdly, the participants perceived their Chinese competence, particularly their speaking skills, had improved due to more practice opportunities provided by the multimodal environment and the tasks designed. A number of studies have supported the relationship between interaction and learners' SLA (Gass, 1997; Long, 1991; Pica, 1994), the participants' negotiation of meaning will be further discussed in section 7.2.3.

Data from the first research cycle revealed the limitations of the technical capabilities of the software, which mainly focused on instability of the audio connection. The reasons for audio delay were varied and they can be concluded in three aspects. First of all, as previous studies have pointed out, real-time transmission of audio and video may consume a large amount of Internet bandwidth (Hampel, 2003; Wang, 2008)

7.2.2 Multiple modes of communication in the online environment

The aim of the first research cycle was to examine the influence of the multiple tools on the learners' and teacher's communication. It is important to reflect on all the available modes of

interaction they can use and how these modes are used and contribute to the process of meaning making in the online environment. Hampel (2006) defines affordances in the context of CMC as "the constraints and possibilities for making meaning" (p. 11). In the context of the current study, written and oral language, visual, audio, photographs, and texts were available for the participants (Cope & Kalantzis, 2009). Hampel (2014), who compared features of modes for meaning-making in face-to-face classrooms and online learning spaces, states that "the body is being extended to include computer and software, and typing and using a mouse become all important" (p. 6). Therefore, the focal point of the research in the first stage was on the tools that were employed by the participants and the teacher in the multimodal environment, and the students' negotiation of meaning routines.

The post-session surveys investigated the learners' preferences with regard to all the tools combined in Blackboard Collaborate, including audio, the whiteboard, feedback menu (raise-up hand button, voting, and emoticons), text chat, recording, video, and profile pictures. The results clearly showed that the most useful and preferred tools were: audio >> the whiteboard >> feedback menu >> text chat >> recording (in descending order). However, video and profile pictures were the only functions that received negative reviews by the participants. Other features such as screen sharing and document sharing, which could have easily triggered a crash at the time when this research was conducted, were not implemented nor investigated in the current study. In the following section, I will discuss the abovementioned tools and its impact on learners' interactions in the online sessions.

The data collected from the post-session surveys provided information about the participants' preferences regarding the various tools in the multimodal environment, among which audio was perceived as the most useful and functional feature in the online sessions. Hampel and Stickler

(2012) who investigated the interplay of modes in videoconferencing, found that there were three ways in which multiple modes can be combined “to complement each other, to compensate for shortcomings, or in competition with each other” (p. 132). Similar findings were also observed in this study.

(1) Complementation: the spoken language via audio channel and the written language via the text chat. As shown in section 5.2.1, in the online sessions, the teacher mainly used the text chat to recast or model vocabulary. Due to the unique nature of Chinese orthography and its pronunciation system, the pronunciation of Chinese words cannot be deduced from its spelling or writing, which is quite difficult for beginners to acquire or understand without visual assistance. Therefore, being modeled by the teacher via text chat could be a necessary complementation not only for the learners’ Chinese listening and speaking improvement, but also for their Chinese character recognition. Besides text chat, the whiteboard and feedback menu (raise-up hand, voting, and emoticons) also played a supplementary role to audio. For instance, participants used the raise-hand button to indicate their willingness to answer questions instead of speaking over the top of other students via audio. The whiteboard was used by the teacher to present written instructions and task information. The whiteboard slides could also be sent to breakout rooms in case the participants required prompting on the teacher’s verbal instructions.

2) Compensation: As presented in the discussion of the data in the first research stage, the voting tool and emoticons were employed by the teacher to allow all the students to contribute to discussion without interrupting other students. For instance, on seeing all students’ green checks via the voting function, the teacher knew that they could move to the next page without verbally checking with each student. At the end of each session, the students tended to use emoticons to

express their feelings to all the attendances rather than send a message via text chat. It can help both the teacher and the students save much time and get more immediate feedback.

3) Competition: In contrast to what was reported in Hampel and Sticklers's (2012) study, a competition relationship between audio and the text chat was not observed in the current study except when occasionally used by some latecomers to greet others. The web cams were usually positioned above users' eye level and since the video window is located in the left corner, the video transmitted the participants' face only rather than their whole body. Therefore no one used the webcam except when reporting audio problems. An interesting finding noted in the interviews was that due to the relatively slow refresh rate, the use of web cams by multiple students often resulted in audio delay. In the training session prior to the first online session, the students were instructed to turn off their web cam whenever they noticed an audio delay. Therefore, some students were observed shutting down their video channel when the audio connection was not very stable in the online sessions. Hampel (2014) suggests that video transmission delays lead to a disconnection between audio and users' body language such as lip and facial movement.

The findings in the current study confirmed Hampel and Stickler's (2012) argument that a multimodal environment has an impact on discourse patterns that are familiar to both learners and teachers. Both the teacher and the participants in this study explored their own ways of adapting themselves in the web conferencing environment.

7.2.3 Multimodal interaction

The study described how multiple tools are employed by learners and their teacher to interact in in-group and peer-to-peer collaboration. The data showed that web conferencing tools might not

necessarily lead to equality of participation, which is in contrast to Vetter and Clanier's (2006) study. To achieve participation equality requires both the learners and the teacher to be fully aware of the tools they can adopt to participate in online discussion (Stickler & Shi, 2013). The results showed that the students' use of different modalities, such as emoticons and the raise-hand tool, was more evenly distributed in Session 2 than in Session 1, which may have been the result of students' increased familiarity with the available modalities. Thus, having students attend more online sessions or trained in the use of different tools may be beneficial for online language learners. Given that students' language contributions were also more evenly distributed in the second session, it may be hypothesised that the increased level of familiarity with the technology may have positive pedagogical implications and encourage students' participation in online sessions.

In the current study, the teacher's presence and instructions were conducive to enhancing learners' participation and avoided long monologues (Berglund, 2009). Interestingly, the students' modality strategies varied in the main room and in the breakout rooms. Without the teacher's presence, the participants stopped using web cam and text chat when communicating with their partners. They paid more attention to collaboratively completing the tasks and finishing their work on the whiteboard. This suggests that audio may have been perceived as the most useful and functional feature in the online sessions, while multimodal functions may have been perceived by students as 'back-up' functions whenever the main audio channel was unavailable or being used.

An important finding of this study is that students seemed to have used the webcam strategically during their lessons. Unlike their teacher, who used the webcam throughout the online sessions, the learners only used their webcam in the main room and did not use it in pair work. It is an

interesting finding and raises several questions as to why students were so selective in their use of the webcam. While there may have been technical reasons for students' reluctance to use their webcams (e.g., the absence of webcams or a weak Internet connection), there could also have been social reasons. Since all the students knew each other from their face-to-face lessons, they may not have felt the need to use the webcams. Another interpretation is they may not have been comfortable presenting themselves in front of webcams due to self-consciousness and privacy concerns (Kozar, 2016a; Telles, 2010). Whatever the reasons, future research needs to investigate what interactional effect webcam use (or the lack of thereof) has on the overall lesson dynamic.

Similar to the strategic use of webcam, students in this study seemed to have used other functions, like feedback menu and text chat, in a strategic way, which echoes Hampel and Stickler's (2012) study. For instance, the participants used the raise-hand button to indicate their willingness to answer questions instead of speaking over the top of other students via audio. Encouraged by the teacher, the students used the raise-hand button to take initiative while emoticons were used to compensate for the lack of visual cues (Lee, 2001; Negretti, 1999).

Another important finding of this study is the fact that text chat was mostly used by the teacher. It is possible that, consistent with other studies (Kozar, 2016b), the text chat may have been perceived by students as the 'teacher's space'. Indeed, due to the unique nature of Chinese orthography and its pronunciation system, where the pronunciation of Chinese words cannot be deduced from spelling or writing, it is quite difficult for beginners to acquire or understand without visual assistance. Therefore, modelling by the teacher via text chat was a necessary complement not only for the learners' Chinese listening and speaking improvement, but also for

their Chinese character recognition. On the other hand, the learners' use of text chat was mainly limited to reporting technical issues or for greeting others (Hampel & Stickler, 2012).

7.2.4 Negotiation of meaning

All the four primes in Varonis and Gass's (1985) model were identified in the current data. The study showed that the tasks designed may have been conducive to learners' second language acquisition. Echoing the findings in Wang's (2006) study, relatively low listening and speaking proficiency was the main trigger that led to non-understanding. For the same reason, the learners tended to resort to their first language rather than the target language when communication breakdown took place, as also found by Fernández-García and Martínez-Arbelaiz (2002) in their study. Furthermore, the analysis of indicators showed that the tasks designed enabled learners' collaborative learning. For example, in the process of task completion, the students provided corrections on their peers' mistakes, which may have helped to draw their attention to language form (Long & Robinson, 1998). Therefore we identified a new category, 'indicator as correction', which was not incorporated in Varonis and Gass's (1985) model. Last but not least, repetition was the only type of response found in the current study, which also confirmed that the participants' low language proficiency was the major reason that triggered language breakdowns. Considering the students also used other tools such as the whiteboard to compensate for audio interaction, multimodality might also be conducive for beginners' interaction when they encounter language problems. In section 7.3.2 the results gathered from the first and the second research cycles will be compared.

7.2.5 Implications for online language learning and teaching in the second research stage

The first research cycle explored the implementation of TBLT in a web conferencing-based online beginners' Chinese unit and its influence on the participants' way of meaning making.

Moreover, it also shed light on how task design can stimulate peer-to-peer interaction to facilitate second language acquisition. The information-gap and jigsaw tasks, which required one or two ways of information exchange, were able to elicit negotiation for meaning in learners' online interaction, echoing Pica's (1994) seminal study, and might be used as a starting point for teachers designing tasks in online environments.

The multimodal environment has shown its potential for facilitating task-based peer-to-peer collaboration and negotiation for meaning. In other words, it confirmed that the tasks designed in the web conferencing environment could provide learners with opportunities to modify their interaction when language breakdown takes place in conversation. Therefore, it may facilitate learners' second language acquisition.

The multimodal interaction analysis delineated how the participants managed to use multiple modes to communicate with each other before and after the tasks. The web conferencing environment provides a wide range of channels, which can simultaneously reinforce one another, examples of which include text chat and audio in the current study. It shows great potential in creating an online collaborative learning environment that fosters second language acquisition, especially for distance learners who need to bridge geographical barriers (Blake, 2005; Wang, 2008). However, the teacher and the students' multimodal coping strategies might be different with or without the teacher's presence. Therefore, technical training of learners and teachers for multimodal environments is necessary and calls for future exploration (Hampel & Stickler, 2005; Hampel, 2009).

7.3 Evaluation of the appropriateness of the web conferencing tool and the collaborative tasks in the second stage

The previous section discussed the results in the first research stage, which answered the first two subsidiary research questions. This section develops the discussions in chapter 6, in which the appropriateness of the web conferencing tool, Blackboard Collaborate, and the five collaborative tasks designed in the second stage were evaluated. The aim of the second research stage was to provide an answer to the third subsidiary question:

What are the pedagogical benefits and limitations of applying the web conferencing tool in a task-based introductory Chinese course?

The second research stage, which was also the main research stage of the current study, focused on the pedagogical value of implementing TBLT in a web conferencing-supported environment and its influence on learner-learner interaction and their second language acquisition. This study was carried out to answer the focal research question:

How can task-based language teaching (TBLT) approach be implemented in a web conferencing environment to facilitate learners' SLA?

The discussion in the following sections is organised in reference to the proposed evaluation criteria in section 4.4. Discussion with regard to practicality, language learning potential, learner fit, authenticity, and positive impact in the second research cycle will be presented and compared with the results in the first research stage. Implications for online language learning and teaching will be described for each evaluation criterion.

7.3.1 Practicality

2) User friendliness

In section 6.2.1, two aspects of user friendliness were discussed, including ease of installation and ease of use. The results showed that the participants were satisfied with their experience installing and using Blackboard Collaborate in the online sessions.

Ease of installation

Reasons for successful installation were as follows: (1) All the participants were young university students, who had sufficient computer literacy skills. Moreover, the training session also provided enough technical guidance and support for first-time users to avoid simple mistakes. For instance, the Blackboard Collaborate users needed to check and update Java to make sure they could join in the online sessions smoothly. The process took several minutes (depending on the Internet connection) to update and restart their computer. Other than that, receiving a training session with professional technical support also helped the students establish their confidence in operating the web conferencing tool and to actively participate in online discussion, which echoed Heiser et al.'s (2013) study. (2) At the time that this study was conducted, Blackboard Collaborate was integrated into the learning management system (LMS) at Macquarie University. The students and the teacher did not need to download and install the software except to update the Java from time to time. This meant that the installation was fairly fast and easy. (3) Although Blackboard Collaborate can be accessed on mobile devices, all the participants were required to use a desktop PC to join the online sessions since the connection via a computer was more stable than that via mobile devices such as iPads. Using a PC to participate in the online interaction also guaranteed that the installation of Blackboard Collaborate was satisfactory experience.

Ease of use

As discussed in section 6.2.1, moderating and monitoring collaborative sessions is manageable for a teacher; however, for a novice, technical support would be very helpful, especially in the first "live" session. From the students' perspective, the interface of Blackboard Collaborate was straightforward and easy to use, aside from the few times when the teacher needed to remind them to turn off the microphone when they finished speaking.

Implications for online language learning and teaching

In conclusion, Blackboard Collaborate is a user-friendly web conferencing tool for universities, colleges, and language institutes since it can be integrated into the LMS platform and can provide all students with access to online sessions without installation. A training session, whether via face-to-face or in an online setting, is necessary before the first formal online session. Moreover, a user manual should be provided to students before the training session. Since manipulating online sessions requires multitasking skills, it would be great to have technical support during the first online session. A stable Internet connection is also required, especially for the language instructor.

3) The audio and video quality

In general, the audio and video quality during the online sessions in the two research stages achieved a satisfactory level despite the occasional insignificant delays. As suggested by technical support at Macquarie University, a cable modem was used to alleviate audio latency. However, the learners' own Internet connections also played a key role in audio quality. Wang (2008) suggests choosing a less congested Internet time to avoid audio latency. In the current study, since there were more than eight students, plus the teacher and technical support team were required to be involved in each online session, it was difficult to set up a time that suited everyone and also successfully avoided Internet peak times. Therefore, it was suggested to

participants that they turn off their web cameras and other applications to ensure that the audio interactivity was able to achieve a satisfactory level.

In contrast to previous studies on distance language education (DLE), the use of webcam was not the major concern of this study since we did not provide web cameras to the participants. The students could use their own webcams and were encouraged to do so. However, as discussed before, high resolution cameras may also slow down the audio transmission in the online sessions. Moreover, the participants did not see the necessity of using webcams to see other students in online interaction and they considered it more as a distraction than support. On the other hand, all of them confirmed that it was conducive to seeing the teacher via the video channel since most of the interaction in the main room was moderated by the teacher. It was reported that this contributed to creating the sense of a classroom teaching environment.

Implications for online language learning and teaching

When considering the use of web conferencing tools with distance learning students, it is important to check the audio and video connection beforehand. My suggestions are threefold: (1) Ensure that the moderator's computer is connected to a stable cable modem. This may reduce a great deal of audio delay throughout the online sessions. (2) Instruct students to turn off their web cams when latency takes place since it may cause the lag of the audio transmission. (3) It would be great if the teacher used a web cam throughout the online sessions, especially when everyone get together in the main room.

4) Other features of pedagogical values

Interactive Whiteboard

The interactive whiteboard was one of the tools in Blackboard Collaborate that received the most positive feedback from the participants in the current study. Different from other whiteboards in previous studies such as those conducted by Wang (2008) and Hampel and Stickler (2012), an interactive whiteboard allows multiple users to edit and manipulate interactive tools simultaneously. It gives language instructors more freedom to design collaborative tasks and also increases the interactivities of language teaching online. In addition, using the interactive whiteboard to teach non-alphabetical languages, such as Chinese and Arabic, can be conducive to learners' character recognition. Typing on the board rather than drawing Chinese characters messily (such as the whiteboard on Skype) can save more space and also make it more organised. Although the text-editing tool of the whiteboard was a bit difficult to use at the time when the research was conducted, the technical issue was reported to Blackboard Collaborate since they were working closely with me at the time. It is envisaged that this will be resolved in the near future.

Text Chat

Text chat is one of the most common tools integrated into audio/video conferencing tools (such as Skype, Illuminate, Adobe Connect, etc.). The text chat of Blackboard Collaborate enables users to send public and private messages, which can be employed by language teachers and learners for different purposes. In the current study, public messages were employed to give the students written feedback such as tone corrections or Chinese character writing. The students used the text chat to greet or say goodbye to their peers. Private messages can be used by the teacher to send personal reminders to certain students without interrupting others during group

discussions. However, due to the original setting of the interface of Blackboard Collaborate, the text chat window can easily be overlooked, and the instructor needed to verbally remind the students to pay attention to the text.

Breakout rooms

The breakout rooms were the venues where collaborative tasks were carried out. It enabled the participants to conduct tasks in pairs or small groups with or without the instructor's moderation. The students felt more comfortable and relaxed working with their peers without the teacher's presence. Contrary to Örnberg Berglund's (2009) study, no long monological turns were found in the current study.

Feedback menu (emoticons, raise-up hand button, and polling)

In the current market, not all web conferencing software offer feedback tools. The use of different functions depend on the task design and interaction pattern between the language teacher and the students. In the current study, the teacher did not encourage the students to use emoticons; however, they occasionally employed it to actively express their feelings throughout the online sessions. It helped to create a sense of learning community online. Polling buttons can be used to collect learners' responses to multiple choices or truth or false questions. In this study, due to the occurrences of audio delay, the teacher adopted polling to adjust the pace in the online sessions when needed. The raise-hand function was mainly used to show the learners' willingness to answer questions, but can also be employed to serve other pedagogical purposes.

5) Summary

Although I encountered various technical issues in the second research stage (see technical issues in section 6.2.5), the practicality of Blackboard Collaborate still achieved a satisfactory level in

supporting the learners' and the teacher's interaction in the multimodal online environment. For the purpose of this research, when designing the tasks and online activities in the current study, I explored all the functions of Blackboard Collaborate. Audio, interactive whiteboards, breakout rooms, and text chat were considered as the most useful tools in the online sessions by the participants. In contrast to previous studies (i.e., Codreanu & Celik, 2013), the use of web cameras did not receive positive feedback from this study's participants. It showed that the attitudes toward the use of webcam varied between on-campus students and distance learners.

7.3.2 Language learning potential

6) Focus on form

As discussed in section 2.1.2, it is widely accepted that learners' notice of and attention to linguistic form is important for their second language acquisition (Robinson, 1995; Schmidt, 1990). Focus on form is defined by Long (1988) as learners' attention to form when they are engaging in meaningful tasks. In the process of meaning-based task completion, certain conditions that can direct learners' attention to language form when interaction and communication break down due to unknown language forms and vocabularies are argued to be beneficial to their language learning.

The existing literature has shown that interactional modification may facilitate learners' SLA by temporarily drawing their attention to focus on form in meaning-based tasks (Long & Robinson, 1998). In the second research stage, three types of tasks were adopted and implemented, including information-gap tasks, jigsaw tasks, and decision-making tasks (Pica, 1994). Decision-making tasks were not applied in the first research cycle.

The participants' oral interaction in the breakout rooms was coded and quantitatively analysed according to Varonis and Gass's (1985) model. Compared to the first research stage, more

variations of interactional modification were noted in the second research cycle. This implies that as their language proficiency developed, they were able to use different strategies to negotiate and provide feedback when they encountered linguistic breakdowns. For example, in the second research stage, an increasing number of triggers as neither question nor answer were found, especially in the third online session (jigsaw task) when more interaction modifications were triggered by descriptive statements. As far as Responses (R) were concerned, a greater variety in the types of responses were observed including expansion, rephrasing, acknowledgement, reduction, and target language equivalent (see section 6.3.1), while only repetition was found in the first research cycle. As an optional prime in Varonis and Gass's (1985) model, comprehension checks existed in both the first and the second research stage. It was interesting to note that the participants employed multiple functions, such as the whiteboard, text chat, and audio channel, to negotiate meaning in the process of task completion.

The results of the second research stage further confirmed the link between negotiated interaction and SLA. It further provides evidence that negotiated interaction may facilitate learners' second language acquisition in a web conferencing environment. In this study, several factors contributed to the learners' negotiation of meaning. First of all, the lack of listening and speaking opportunities for them led to their low communication skill. Previous studies have shown that learners often choose to negotiate unknown lexical items (Smith, 2004; Wang, 2008). However, in the current study, results showed that the language problems were triggered by both unfamiliar lexical and syntax items. Lack of practice in class and their relatively low language proficiency led to high frequency of language breakdowns in their communication.

Secondly, when language breakdowns took place in the learners' interaction, the strategies they adopted were more varied than those in the first research stage. Different types of responses were

observed, for example expansion, rephrasing, acknowledgement, reduction, and target language equivalent, echoing Wang's (2008) study. It shows that as their language proficiency developed, they were able to use different way to express themselves. For instance, they expanded, rephrased, or even reduced their discourse to provide feedback to their partners to make sure they could understand it. On the other hand, since they were all English speakers, when they could not use the target language to communicate, they tended to resort to English, which echoed Fernández-García and Martínez-Arbelaiz's (2002) study.

Thirdly, as discussed in section 7.2.3, the participants managed to creatively employ multiple tools to communicate with their partners, especially in the breakout rooms. In the first and the second research stages, comprehension checks (CC), an optional prime in Varonis and Gass's (1985) model, was found in the peer-to-peer interactions. In the third online tasks during the second research cycle, the participants used text chat, the interactive whiteboard, and the audio channel to work out the route on a map. This means that in the multimodal online learning environment, visual interaction was achieved not only via the video channel but also through different tools.

Implications for online language learning and teaching

The implications for online language learning and teaching encompass the following aspects. Firstly, the present study has shown that collaborative tasks can create opportunities to facilitate negotiation of meaning in a task-based web conferencing environment. Three types of tasks were adopted in this study and more types of tasks may be designed and explored in intermediate or advanced online Chinese teaching practice in the future. Secondly, as learners' language proficiency developed, most of the time, they were able to fix language breakdowns without

using their first language such as English. Language teachers need to encourage learners to use the target language to communicate as much as they can. Last but not least, students of younger generations can creatively choose different tools to communicate with peers. Language teachers should actively explore and incorporate cutting-edge technologies and implement them in online language learning and teaching in the future.

7) Participants' improvement in Chinese proficiency

Improving their Chinese proficiency was one of the major motivations that attracted the students to participate in the project. As elicited from the pre-session surveys, they listed different aspects of Chinese skills that they wanted to improve throughout the project, including speaking ability, conversation tactics, fluency, and listening ability. According to my observations and the students' self-reflection, it can be confirmed that the participants' conversation tactics and fluency had improved throughout the project. Attending the online sessions provided them more opportunities for exposure to authentic materials of the target language and for expressing themselves as well as negotiating for meaning with the teacher and their peers. As discussed in the previous section, the negotiation of meaning process triggers interactional adjustments by the NS or more competent speakers and facilitates acquisition by connecting input, learners' selective attention, and output in productive ways (Long, 1996).

The reason why the participants were weak in listening and speaking was due to lack of conversation practice in class. Most of them were not able to digest and convert what they learned in the textbooks to their daily conversation. In the first few online sessions, they struggled to produce their own output without consulting their textbooks or notes. Moreover, most of the language breakdowns observed in the beginning of the second research stage were triggered by their relatively low listening competence and unfamiliar expressions. At the end of

the last session, most of them confirmed that they were more confident using the target language to communicate with others and were more fluent in Chinese. It is also worth noting that most of them appreciated their improvement in Chinese character recognition, although it was not one of the major research focal points of the current research. I believe using the whiteboard and text chat was responsible for this. To be exposed to the target language text, especially for non-phonetic languages such as Chinese, can be conducive to learners' SLA as well.

Implications for online language learning and teaching

The findings in the current research partially answered the second subsidiary research question: How can a task-based language teaching (TBLT) approach be implemented in a web conferencing environment to facilitate learners' SLA?

In order to set up an optimal online learning environment, the design of online tasks needs to fit the learners' language competence. For instance, all the instructions should be written in their first language, for example English, and the teacher needs to verbally explain it to all the participants in the main room to make sure the students know what they are expected to do in groups. In the same vein, before the first online session, sufficient training and technical support is necessary to alleviate learners' confusion regarding software manipulation.

Language instructors also need to take into consideration the difficulty level of embedded linguistic elements such as newly learned vocabulary and grammar. The students may feel intimidated when they confront too many unfamiliar new expressions that are out of their reach. Therefore, it would be important to review or rehearse the seeded vocabulary and grammar in the pre-task stage. Activities such as matching the words and rearranging sentences may help students refresh their memory of what they had learned in class and be more creative to

implementing new skills in online tasks. It is important to ask students to do some writing work that they can present in the post-task stage, especially when holding a session with more than one group. On one hand, it may help them to write and recognise more Chinese characters. On the other hand, during the group presentation stage, language teachers can design simple questions to ask other students. This can attract their attention, especially when the teacher is providing corrective feedback to individual students.

8) Collaborative learning

Computer-supported collaborative learning (CSCL), derived from Vygotskyan cultural psychology, concerns learners' "collaborative learning" in a CMC environment (Kirschner, 2002). Sociocultural theories stress the pivotal roles played by language and other tools, such as computers. Previous studies report that compared to face-to-face interaction, collaboration supported by CMC is considered weak in social presence (Kirschner, 2002).

The findings in the current study prove that collaborative learning did occur in learner-learner interaction in group work. Learners' collaborative learning can be further categorised twofold: learners' collaboration with or without the teacher's presence. The first situation normally takes place between a more competent learner and a lower proficiency learner. Quite a few examples were reported in section 6.3.3. When working together as a group, a more competent learner tended to help their partners by providing corrective feedback or even grammatical explanations, which echoes previous studies (for example Smith, 2003b). It contributed to creating a less stressful learning environment and the participants felt more engaged when working with other students. Moreover, the time limitation given by the instructor also forced the students to contribute more to the group discussion.

Secondly, when the students encountered breakdowns or problems that they could not solve by themselves, it was important to have at least one teacher monitoring their interaction and providing timely assistance. According to the results in the current study, the participants felt safe and comfortable having the teacher move around and liked to let the teacher know when they had language or technical issues.

Implications for online language learning and teaching

To sum up, to create an online collaborative learning environment, language instructors need to consider the three following aspects. Firstly, give students freedom to pair with others since some of them may have someone with whom they feel comfortable working. Secondly, create small groups and design tasks that require information exchange, so that all members in groups are each responsible for contributing to group work. Thirdly, act as a moderator and keep an eye on students' interactions and provide assistance when necessary.

7.3.3 Learner fit

9) The level of dfficulty of the tasks

Although all the participants enrolled in the same Chinese unit CHN105 Introductory Chinese 2 and none of them had learned Chinese before the first and the second research stages, their perception of task difficulty varied depending on their Chinese proficiency, topic familiarity, task types, and instructions. In the current study, all the participants confirmed that the online tasks were challenging but still within their grasp. The students who come from Asian countries such as Korea showed higher competence in Chinese character reading and writing, which also correlated with their better performance in face-to-face sessions. To pair them with students who are weak in Chinese reading skills may be conducive to their task performance.

The students felt that the fourth online task was particularly more difficult. Part of the reason for this was that the fourth task was the only one decision-making task, which required students to exchange their opinions. Being first-year learners, the sentences they could compose were limited. Therefore, they were more used to information-gap or jigsaw tasks, which were more straightforward and did not require producing an open-end output. As such, tasks that require more creativity or producing open results such as decision-making tasks may be more suitable for medium or advanced learners.

Implications for online language learning and teaching

Designing appropriate tasks for learners requires language instructors take the following aspects into consideration. First of all, task instructions need to be clear and easy to understand. Oxford (2006) states that "[w]hether or not a particular student actually perceives a given, cognitively complex task to be difficult and challenging depends considerably the student's familiarity with the kind of cognitive operations required" (p. 105). According to Sweller (1988, 1999, as cited in Oxford, 2006), there are limits to people's capacity for information processing. That means the task instructions should not take too much of the students' cognitive load but should still draw their attention to language form and meaning. Therefore, tasks such as information-gap, which are easy to explain or understand, are more suitable for beginners. Secondly, warm-up activities should be designed and included in the pre-task stage. This may help students refresh their memory and improve their performance in the process of task completion. Last, it may be helpful to pair high and low competent students in one group to achieve better learning results.

10) Participation in the tasks

According to the results, learners' participation in the tasks and the level of task difficulty and time limitation were interrelated. The participants felt more engaged doing the tasks with their

partners when they were able to use Chinese to communicate with others and were fully comfortable with the online environment and the interaction pattern.

Implications for online language learning and teaching

To design engaging collaborative tasks requires language instructors to consider the following aspects. First of all, choose appropriate tasks that suit learners' language proficiency. Oxford (2006) states that "task-based teaching and learning potentially offer great riches if explored by teachers in their dual roles as instructor and action researcher" (p. 114). In the current study, as both teacher and researcher, I explored three different task types in the beginner's online Chinese task design. The results showed that the first-year students were more used to information-gap and jigsaw tasks, which require producing only a certain outcome. However, tasks such as decision-making tasks, in which students can reach different outcomes, require relatively higher language proficiency. It may be challenging for beginners. Secondly, time limitation also plays a key role in learners' task completion, which echoes Skehan's (1996) study on time pressure and TBLT. Students may feel more confident if they are given enough time to plan and conduct tasks. Last but not least, in the post-task stage, language teachers can ask students to present the students' work in groups. Similar to low-risk competition, it may give the student more pressure to contribute more in their group work.

7.3.4 Authenticity

The results in the current study confirmed the authenticity of the tasks designed. Egbert (2005) defines authentic task as "one that learners perceive they will use outside of class in their real world or that parallels or replicates real functions beyond the classroom" (p. 6). As one of the conditions for optimal online language learning, authenticity has a significant influence on

learners' engagement and willingness to participate in the tasks (Chapelle, 2001). Nunan (1993) states that applying authentic tasks has a positive influence on facilitating learners' meaningful interaction; therefore, it may encourage comprehensible output production and learners' engagement. In terms of authenticity in a web conferencing-based environment, tasks can be relevant to students' real life, or be amended to foster their real-life communication skills. In the current study, all the participants were positive about the relationship between the tasks and their real life to different degrees. As Nunan (1993) points out, task authenticity promotes meaningful interaction and learners' personal involvement in task completion.

The study aimed to reinforce the vocabulary and grammar structures that were taught in class and provided more opportunities for the learners to practice their communication competence. All tasks were selected and designed based on their language proficiency and the context of their life in Australia. It offered them the opportunity to apply the language they learned in the textbooks in authentic scenarios that were close to their daily life. For example, using Macquarie University campus map to show directions, choosing clothes for their parents and sending them to China, taking a train to go to school, and so forth. The findings echoed previous literature and confirmed that task authenticity could generate more comprehensible language output and facilitate learners' personal involvement.

Implications for online language learning and teaching

Designing authentic tasks for online learning environments requires that language teachers take into account the following three aspects: firstly, build connections between pedagogical goals and learners' daily life. Scenarios that are relevant to their campus study or their overseas study experience might stimulate their discussion. Secondly, using authentic materials can attract

learners' attention. For instance, in the current study, I downloaded a Chinese visa application form online, and it was amended and implemented in our first online session in the second research cycle. Students paid more attention when they realised that they were doing a real-life task. Thirdly, when applying authentic tasks, language instructors need to take into account learners' language competence and the level of task difficulty. Learners tend to give up if the tasks are beyond their grasp.

7.3.5 Positive impact

According to the findings presented in section 6.6, two aspects were addressed in terms of the positive effects: (1) the effects of the multimodal environment and (2) the effect on learners' confidence building.

11) The impact of the multimodal enviroment

In the follow-up surveys and the in-depth interviews at the end of the second research stage, students were invited to share their learning experience, particularly their feelings regarding the multimodal environment. The majority of them mentioned that at the beginning it was quite overwhelming because of the software, the audio connection, and the tasks, especially for the novices. However, after they became accustomed to the interface and the structure of the online sessions, they became more active and enthusiastic about participating in online discussions. They felt they were better able to manage the multitasking interface and enjoy the interaction with peers online.

As reported in sections 5.2.1 and 6.2.3, in both the first and the second research stages, the use of webcam was considered a distraction by most of the participants. Due to the multitasking feature of the web conferencing tool, managing to communicate with both the teacher and the peers via different modes may have been challenging for all the participants. Their attention might have

been predominantly drawn to the audio and the interactive whiteboard. Little attention would have been paid to the video window, which is located at a corner that can be easily missed.

Implications for online language learning and teaching

The multimodal interaction analysis delineated how the participants managed to use multiple modes to communicate with each other before and after the tasks. The web conferencing environment provides a wide range of channels, which can simultaneously reinforce one another. It shows great potential in creating an online collaborative learning environment to foster second language acquisition, especially for distance learners who need to bridge geographical barriers (Blake, 2005; Wang, 2008). Moreover, since all the participants were on-campus students, they did not feel it was necessary to see their peers all the time during the online sessions.

12) The impact on confidence building

At the end of the second research stage, all students confirmed that attending the online sessions was conducive to their confidence building. It helped them reduce their anxiety and increase motivation in the target language learning. Wang (2004) states that "[t]he importance of visual input and interaction may be even more prominent to distance language learners in that it can help reduce isolation and anxiety and build confidence" (p. 378). Moreover, attending online sessions with peers and the teacher who they knew from their face-to-face classes also stimulated their willingness to participate and communicate in the online environment.

As shown in section 6.6.2, the participants appreciated the online sessions in building their confidence in different ways. First of all, due to the lack of speaking practice in class, most of the students were anxious when they spoke in the target language. They felt more confident answering questions and presenting after collaboratively working with their partners in the

breakout rooms. Privatively working with peers contributed to creating a less competitive environment, in which the participants were more relaxed and willing to contribute to pair work without worrying about making mistakes. Secondly, the participants, especially those who were not interested in online language learning, became more confident in using technology to study Chinese after participating in this project. For example, student 9 and student 1, who mentioned that they preferred face-to-face teaching before attending the online sessions, stated that they enjoyed the convenience of the web conferencing tool and were more positive about online learning. Last but not least, the positive feedback that the students received from the teacher and their peers was also conducive to their confidence building. Students 3 and 9, who believed they benefited a lot from the online sessions, felt satisfied when they were able to complete the tasks and enjoyed the encouragement received from the teacher and other students.

Implications for online language learning and teaching

The findings in the current research confirmed that the online tasks contributed to the learners' confidence building. To achieve such a goal, language teachers need to consider the following aspects. Firstly, creating a less pressured learning environment is vital for online language learning. Students, especially beginners, may feel more nervous at first when they attend online sessions. Working with students they already know or getting familiar with the tool can help alleviate their nervousness and boost their confidence. Secondly, providing more positive feedback and encouragement can make students, especially less competent learners, more willing to communicate and express themselves. Thirdly, teachers need to help familiarise students with the online learning environment as early as possible. Therefore, sufficient training is necessary for learners who are not familiar with technology.

7.3.6 Summary

Regarding the evaluation criteria proposed in the second study cycle, the main findings can be summarised as follows: Firstly, as far as language learning potential was concerned, the results confirmed that the tasks had created opportunities to draw learners' attentions to the form of the target language even without the teacher's presence, which was rarely reported in previous literature (Örnberg Berglund, 2009). Moreover, the participants perceived their language as improved in terms of listening, speaking, and communicative competence. In the current study, incidences of collaborative learning were identified in the peer-to-peer interaction, in contrast to the majority of CMC studies, which focused on teacher-learner interactions (Wang, 2006, 2007). Secondly, the participants believed the difficulty level of the tasks and their language proficiency level were a good fit. They felt engaged in the tasks with peers in breakout rooms. Finally, the participants found that they were able to multitask in the multimodal environment to communicate with others better. They were encouraged by the positive feedback from their peers and the teacher, and it contributed to boosting their confidence in language learning.

7.4 Contributions of this study

This study aimed to explore the implementation of TBLT in a web conferencing-based online beginners' Chinese unit and its influence on the participants' way of meaning making. Moreover, it also shed light on how task design can stimulate peer-to-peer interaction to facilitate second language acquisition. The information-gap and jigsaw tasks, which required one/two ways of information exchange, was able to elicit negotiation of meaning in learners' online interaction, echoing Pica's (1994) seminal study.

In the first research stage, the multimodal interaction analysis delineated how the participants managed to use multiple modes to communicate with each other before and after the tasks. The

web conferencing environment provided a wide range of channels, which can simultaneously reinforce one another. It shows great potential in creating an online collaborative learning environment to foster second language acquisition, especially for distance learners who need to bridge geographical barriers (Blake, 2005; Wang, 2008). However, training for teachers is required to prepare them for online learning and teaching (Stickler, 2015). Furthermore, more research is needed on task design in multimodal learning environments to promote learners' interaction (Hampel, 2006; Rosell-Aguilar, 2005; Wang, 2007).

The multimodal environment has shown its potential for facilitating task-based peer-to-peer collaboration and negotiation of meaning. In other words, it confirmed that the tasks designed in the web conferencing environment could provide learners with opportunities to modify their interaction when language breakdown takes place in conversation and thus facilitate learners' SLA.

In the second research stage, Chapelle's (2001) criteria for evaluating the appropriateness of web conference-based collaborative tasks were adopted and adapted, and provided empirical evidence of the implementation of the criteria through participants' perceptions. The findings, which are context specific, confirm that the technical capacity of the web conferencing tool, Blackboard Collaborate, is reliable and sufficient for supporting teacher–learners' multimodal interaction in the online environment. The designed collaborative tasks have shown great pedagogical values in facilitating learners' SLA in the online environment.

Regarding the evaluation criteria proposed in the current study, the main findings can be summarised as follows: Firstly, as far as language learning potential is concerned, the results confirm that the tasks created opportunities for drawing learners' attention to the form of the

target language. Moreover, the participants perceived that their language had improved in terms of listening, speaking, and communicative competence. Incidences of collaborative learning were identified in the peer-to-peer interaction. Secondly, the participants believed the level of difficulty of the tasks and their language proficiency level were at good fit. They felt engaged in the tasks with peers in breakout rooms. Finally, the participants found that they were able to multitask in the multimodal environment to communicate with others. They were encouraged by the positive feedback from their peers and the teacher, and it contributed to boosting their confidence in language learning.

7.5 Limitations of the study

I am aware of the limitations of the study. First of all, the data was collected from a small cohort and only seven online sessions were conducted and analysed. The results may be different for a larger group or with those at a higher level of proficiency. Moreover, some of the data collected was limited; for example, learners' improvement in Chinese was based on the students' own perceptions of their learning rather than their linguistic gains. In addition, all the participants were on-campus students. The results for distance learners might be different since they heavily rely on oral/visual interaction (Kozar, 2016; Wang, 2007).

7.6 Directions for future research

The present study has proposed that the implication of TBLT in the Blackboard Collaborate-based online environment successfully facilitated the on-campus students' second language acquisition. The teacher and the students successfully employed different strategies to

communicate with each other. It further shed light on collaborative task design for use in a multiple-learner online environment.

Since all the participants in the current study were on-campus students, a further study comparing the online tutorials with on-campus students and distance students may show different results in terms of negotiation routines. Moreover, the technical training of learners and teachers for multimodal environments is necessary and calls for future exploration (Hampel & Stickler, 2005; Hampel, 2009).

Reference:

Abrams, Z. (2011). Interpersonal communication in intracultural CMC. In N. Arnold & L. Ducate (Eds.), *Present and future promises of CALL: From theory and research to new directions in language teaching* (pp. 61-92). San Marcos, TX: CALICO.

Abrams, Z. I. (2003). The effect of synchronous and asynchronous CMC on oral performance in German. *The Modern Language Journal, 87*(2), 157-167. doi:10.1111/1540-4781.00184

Abrams, Z. I. (2016). Possibilities and challenges of learning German in a multimodal environment: A case study. *ReCALL, 28*(3), 343-363. doi:10.1017/S0958344016000082

Allwright, D., & Bailey, K. M. (1991). *Focus on the language classroom: An intorodcution to classroom research for language teachers*. Cambridge: Cambridge University Press.

Anastasiades, P. S., et al. (2010). Interactive Videoconferencing for collaborative learning at a distance in the school of 21st century: A case study in elementary schools in Greece. *Computers & Education, 54*(2), 321-339.

Baldry, A., & Thibault, P. (2006). *Multimodal transcription and text analysis, a multimedia toolkit and coursebook with associated on-line course*. London: Equinox.

Beatty, K., & Nunan, D. (2004). Computer-mediated collaborative learning. *System, 32*(2), 165-183. doi:10.1016/j.system.2003.11.006

Beauvois, M. H. (1992). Computer-assisted classroom discussion in the foreign language classroom: conversation in slow motion. *Foreign Language Annals, 25*(5), 455-464. doi:10.1111/j.1944-9720.1992.tb01128.x

Beauvois, M. H. (1995). E-talk: Attitudes and motivation in computer-assisted classroom discussion. *Computers and the Humanities, 28*, 177-190.

Benson, P. (2002). *Teaching and researching Autonomy in Language Learning* London: Longman.

Berglund, T. Ö. (2009). Multimodal student interaction online: an ecological perspective. *ReCALL, 21*(2), 186-205.

Blake. (2000). Computer mediated communication: A window on L2 Spanish interlanguage. *Language Learning & Technology, 4*(1), 120-136.

Blake. (2005). Bimodal CMC: The glue of language learning at a distance. *CALICO Journal, 22*(3), 497-511. doi:citeulike-article-id:1772067

Blake, R. J. (2011). Current trends in online language learning. *Annual Review of Applied Linguistics, 31*, 19-35.

Blake, R. J., & Zyzik, E. C. (2003). Who's helping whom?: Learner/Heritage - Speakers' Networked Discussions in Spanish. *Applied Linguistics, 24*(4), 519-544.

Block, D. (2003). *The social turn in second language acquisition*. Edinburgh: Edinburgh University Press.

Brandl, K. (2012). Effects of required and optional exchange tasks in online language learning environments. *ReCALL, 24*(01), 85-107. doi:doi:10.1017/S0958344011000309

Brown, J. D. (2001). *Using surveys in language programs*. Cambridge, UK: Cambridge University Press.

Brown, J. D. (2004). Resources on quantitative/statistical research for applied linguistic. *Second language research, 20*(4), 372-393.

Burns, A. (2005). Action research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning*. Mahwah, New Jersey: Lawrence erlbaum asociates publishers.

Calvo-Ferrer, J., et al. (2016). ReCall special issue: Multimodal environments in CALL. *ReCALL, 28*(3), 247-252.

Canale, M., & Swain, M. (1981). A theoretical framework for communicative competence. In A. Palmer, P. Groot, & G. Trosper (Eds.), *The construct validation of test of communicative competence* (pp. 31-16).

Candlin, C. N. (1987). Towards task-based language learning. In C. N. Candlin & D. F. Murphy (Eds.), *Language learning tasks(Lancaster Practical Papers in English)*. Lancaster and London: Lancaster University.

Carr, W., & Kemmis, S. (1986). *Becoming Critical: Education, Knowledge and Action research*. London: The Flamer Press.

Carroll, S. (1999). Putting "input" in its proper place. *Second language research, 15*, 337-388.

Chapelle, C. (1999). Theory and tesearch: Investigation of "authentic" language learning tasks. In J. Egbert & E. Hanson-Smith (Eds.), *CALL Environments: Research, Practice, and Critical Issues* (pp. 101-115). Alexandria, VA: TESOL.

Chapelle, C. (2001). *Computer Applications in Second Language Acquisition: foundations for teaching, testing and research.* Cambridge: Cambridge University Press.

Chapelle, C. (2014a). *Arguments for Technology and Language Learning*. Paper presented at the EUROCALL, Groningen.

Chapelle, C. (2014b). Technology-meidated TBLT and the evolving role of the innovator. In M. Gónzalez-Lloret & L. Ortega (Eds.), *Technology-mediated TBLT : researching technology and tasks*. Amsterdam ; Philadelphia: John Benjamins Publishing Company

Chapelle, C. A. (2005). Interactionist SLA theory in CALL Research. In G. Petrie (Ed.), *Research perspectives on CALL*. Mahwah, NJ: Laurence Erlbaum Associates.

Chapelle, C. A. (2007). Technology and second language acquisition. *Annual Review of Applied Linguistics, 27*, 98-114. doi:10.1017/S0267190508070050

Chun, D. (1994). Using computer networks to facilitate the acquisition of interactive competence. *System, 22*(1), 17-31.

Chun, D., & Plass, J. (2000). Networked multimedia environments for second language acquisition. In M.Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 151-170). Cambridge, England: Cambridge University Press.

Chun, D. M. (2008). Computer-mediated discourse in instructed environments. In S. Magnan (Ed.), *Mediating discourse online* (pp. 15-45). Amsterdam: Benjamins.

Ciekanski, M., & Chanier, T. (2008). Developing online multimodal verbal communication to enhance the writing process in an audio-graphic conferencing environment. *ReCALL, 20*(02), 162-182. doi:doi:10.1017/S0958344008000426

Codreanu, T., & Celik, C. C. (2013). Effects of webcams on multimodal interactive learning. *ReCALL, 25*(01), 30-47. doi:doi:10.1017/S0958344012000249

Cohen, L., & Manion, L. (2000). *Research methods in education* (5th edition ed.): Routledge.

Cohen, L., et al. (2003). *Research Methods in Education*: Taylor & Francis.

Coleman, J. A., et al. (2010). Collaboration and interaction: the keys to distance and computer-supported language learning. In G. S. Levine, A. Phipps , & C. Blythe (Eds.), *Critical and Intercultural Theory and Language Pedagogy*. Florence, KY, USA: Cengage Learning.

Collaborate, B. (2012). *Blackboard Collaborate Web Conferencing Essentials for Participants* (Vol. 2013).

Cope, B., & Kalantzis, M. (2009). “Multiliteracies”: New Literacies, New Learning. *An International Journal, 4*(3), 164-195.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd Edition ed.). Thousand Oaks: SAGE Publications.

Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.

Crookall, D., & Oxford, R. (1990). *Simulation, gaming, and language learning*. Boston: Heinle/Thomson.

Crookes, G. (1993). Action research for second language instructors: Going beyond instructor research. *Applied Linguistics, 14*(2), 130-144.

Cunningham, U., Beers Fa¨ gersten, C. and Holmsten, E. . (2010). ‘‘Can you hear me, Hanoi?’’ Compensatory Mechanisms Employed in Synchronous Net-Based English Language Learning. *The International Review of Research in Open and Distance Learning, 11*(1), 161-177.

Davies, K. A. (1995). Qualitative theory and methods in applied linguistic research. *TESOL Quarterly, 29*, 427-453.

Develotte, C., et al. (2010). The use of the webcam for teaching a foreign language in a desktop videoconferencing environment. *ReCALL, 23*(3), 293-312.

Develotte, C., et al. (2010). The use of the webcam for teaching a foreign language in a desktop videoconferencing environment. *ReCALL, 22*(3), 293-312.

Donato, R., & McCormick, D. (1994). A Sociocultural Perspective on Language Learning Strategies: The Role of Mediation. *Modern Language Journal, 78*(4), 453-464.

Dörnyei, Z. (2007). *Research Methods in Applied Linguistics: Quantitative, Qualitative, and Mixed Methodologies*: OUP Oxford.

Doughty, C., & Pica, T. (1986). "Information-gap" task: Do they facilitate second language acquisition? *TESOL Quarterly, 20*(2), 305-325.

Doughty, C. J., & Long, M. H. (2003). Optimal psycholinguistic environments for distance foreign language learning. *Language Learning & Technology, 7*(3), 50-80.

Duff, P. (1986). Another look at interlanguage talk: Taking task to task. In R. Day (Ed.), *Talking to Learn: Conversation in Second Language Acquisition*. Rowley, MA: Newbury House.

Duff, P. (2006). Beyond generalizability: contextualization, complexity, and credibility in applied linguistics research. In M. Chalhoub-Deville, C. A. Chapelle, & p. Duff (Eds.), *Inference and Generalizability in Applied Linguistics: Multiple Perspectives*. Amsterdam: John Benjamins.

Duran, G., & Ramaut, G. (2006). Tasks for absolute beginners and beyond: Devleloping and sequencing tasks at basic proficiency levels. In K. V. d. Branden (Ed.), *Task-based language education: From theory to pracitce* (pp. 47-75). Amsterdam, The Netherlands: John Benjamins.

Egbert, J. L. (2005). Conducting research on CALL. In J. L. Egbert & G. M. Petrie (Eds.), *CALL research perspectives.* Mahwah, New Jersey: Lawrence Erlbaum.

Ellis, R. (1999a). *Learning a second language through interaction*. Amsterdam: John Benjamins.

Ellis, R. (1999b). Theoretical perspective on interaction and language learning. In R. Ellis (Ed.), *Learning a second language through interaction*. Amsterdam, Philadelphia: J. Benjamins.

Ellis, R. (2000). Task-based research and language pedagogy. *Language Teaching Research, 4*(3), 193-220.

Ellis, R. (2003). *Task-based Language Learning and Teaching*. Oxford: Oxford University Press.

Ellis, R. (2009). Task-based language teaching: Sorting out the misunderstandings. *International Journal of Applied Linguistics, 19*, 221-246.

Ellis, R., et al. (1994). Classroom Interaction, Comprehension, and the Acquisition of L2 Word Meanings. *Language Learning, 44*(3), 449-491. doi:10.1111/j.1467-1770.1994.tb01114.x

Fernández-García, M., & Martínez-Arbelaiz, A. n. (2002). Negotiation of Meaning in Nonnative Speaker-Nonnative Speaker Synchronous Discussions. *CALICO Journal, 19* (2), 279-294.

Foster, P. (1998). A classroom perspective on the negotiation of meaning. *Applied Linguistics, 19*, 1-23.

Foster, P., & Skehan, P. (1996). The Influence of Planning and Task Type on Second Language Performance. *Studies in Second Language Acquisition, 18*(03), 299-323. doi:doi:10.1017/S0272263100015047

Gass, S. (1988). Integrating research areas: a framework for second language studies. *Applied Linguistics, 9*, 198-217.

Gass, S. (1997). *Input, interaction, and the second language learner*. Mahwah, NJ: Lawrence Erlbaum Associates.

Gass, S., & Mackey, A. (2006). Input, Interaction and Output: An Overview. *AILA Review, 19*, 3-17.

Gass, S., & Varonis, E. (1994). Input, Interaction, and Second Language Production. *Studies in Second Language Acquisition, 16*(3), 283-302.
Gass, S. M. (2003). Input and interaction. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 224-255). Malden, MA: Blackwell Publishing Ltd.
Gass, S. M., & Mackey, A. (2014). Input, interaction, and output in second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition : an introduction*. Florence: Taylor and Francis
Gass, S. M., & Varonis, E. M. (1985). Task variation and nonnative/nonnative negotiation of meaning. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 149-161). Rowley, MA: Newbury House.
Gillham, B. (2000). *Case Study Research Methods*: Bloomsbury Academic.
Godwin-Jones, R. (2006). Emerging technologies. Tag Clouds in the Blogosphere: Electronic Literacy and Social Networking. *Language Learning & Technology, 10*(2), 8-15.
Grgurović, M., et al. (2013). A meta-analysis of effectiveness studies on computer technology-supported language learning. *ReCALL, 25*(02), 165-198. doi:doi:10.1017/S0958344013000013
Guichon, N., & Cohen, C. (2014). The Impact of the Webcam on an Online L2 Interaction. *Canadian Modern Language Review/ La Revue canadienne des langues vivantes, 70*(3), 331 - 354. doi:10.3138/cmlr.2102
Guichon, N., & McLornan, S. (2008). The effects of multimodality on L2 learners: Implications for CALL resource design. *System, 36*(1), 85-93. doi:http://dx.doi.org/10.1016/j.system.2007.11.005
Hafner, C. A., et al. (2015). Digital literacies and language learning. *Language Learning & Technology, 19*(3), 1-7.
Hampel, R. (2003). Theoretical perspectives and new practices in audio-graphic conferencing for language learning. *ReCALL, 15*(1), 21-36.
Hampel, R. (2006). Rethinking task design for the digital age: A framework for language teaching and learning in a synchronous online environment. *ReCALL, 18*, 105-121.
Hampel, R. (2010). Task design for a Virtual Learning Environment in a Distance Language Course. In M. Thomas & H. Reinders (Eds.), *Task-basked Language Learning and Teaching with Technology* (pp. 131-153): Bloomsbury Academic.
Hampel, R. (2012). Multimodal computer-mediated communication and distance language learning. In C. A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*: Wiley-Blackwell.
Hampel, R. (2014). Making meaning online: computer-mediated communication for language learning. In A. Peti-Stantić & M.-M. Stanojević (Eds.), *Language as Information. Proceedings from the CALS Conference 2012*. Frankfurt am Main: Peter Lang.
Hampel, R., & Hauck, M. (2004). Towards an effective use of audio conferencing in distance language courses. *Language Learning & Technology, 8*(1), 66-82.
Hampel, R., & Hauck, M. (2006). Computer-mediated language learning: Making meaning in multimodal virtual learning spaces. *The JALT CALL Journal, 2*(2), 3-18.
Hampel, R., & Stickler, U. (2005). New skills the new classrooms: Training tutors to teach languages online. *Computer-Assisted Language Learning, 18*(4), 311-326.
Hampel, R., & Stickler, U. (2012). The use of videoconferencing to support multimodal interaction in an online language classroom. *ReCALL, 24*(02), 116-137.
Hatch, E. (1978). Discourse analysis and second language acquisition. In E. Hatch (Ed.), *Second language acquisition: A book of readings.* Rowley, MA: Newbury House.
Hegelheimer, V., & Chapelle, C. A. (2000). Methodological issues in research on learner-computer interactions in CALL. *Language Learning & Technology, 4*(1), 41-59.
Heiser, S., et al. (2013). Student Training in the Use of an Online Synchronous Conferencing Tool. *CALICO, 30*(2), 226-251.

Henson, K. T. (1996). Teachers as researchers. In J. Sikula (Ed.), *Handbook of research on teacher education* (4th ed ed., pp. 53-66). New York: Macmillan Library Reference.

Hirotani, M. (2009). Synchronous versus asynchronous CMC and transfer to Japanese oral performance. *CALICO Journal, 26*(2), 413-438.

Hymes, D. (1971). On Communicative Competence. In C. J. Brumfit & K. Johnson (Eds.), *The Communicative Approach to Language Teaching* (pp. 5-26). Oxford: OUP.

Ikeda, M., & Takeuchi, O. (2000). Tasks and strategy use: Empirical implications for questionnaire studies. *JACET Bulletin, 31*, 21-32.

Jamieson, J., et al. (2005). CALL Evaluation by Developers, a Teacher, and Students. *CALICO Journal, 23*(1), 1-46.

Jepson, K. (2005). Conversations -- and Negotiated Interaction -- in Text and Voice Chat Rooms. *Language Learning & Technology, 9*(3), 79-98.

Johnson. (2012). *A short guide to action research*. New Jersey: Pearson Education.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational researcher, 33*(7), 14-26. doi:10.2307/3700093

Keller-Lally, A. (2006). *Effect of task-type and group size on foreign language learner output in synchronous computer-mediated communication*. Unpublished PhD Dissertation. University of Texas at Austin.

Kelm, O. R. (1992). The Use of Synchronous Computer Networks in Second Language Instruction: A Preliminary Report. *Foreign Language Annals, 25*(5), 441-454. doi:10.1111/j.1944-9720.1992.tb01127.x

Kember, D. (1998). Action research: Towards an alternative framework for educational development. *Distance Education, 19*(1), 43-63. doi:10.1080/0158791980190105

Kemmis, S. (1983). Action research. In T. Husen & T. Postlethwaite (Eds.), *International Ency- clopaedia of Education: Research and Studies*. Oxford: Pergamon.

Kemmis, S., & McTaggart, R. (1982). *The Action Research Planner*: Deakin University.

Kemmis, S., & McTaggart, R. (1988). *The Action Research Planner* (3rd edition ed.). Geelong, Australia: Deakin University Press.

Kern, R. G. (1995). Restructuring classroom interaction with networked. *Modern Language Journal, 79*(4), 457.

Kirschner, P. (2002). Can we support CSCL? Educational, social and technological affordances for learning. In P. Kirschner (Ed.), *Three worlds of CSCL: Can we support CSCL*. Heerlen: Open Universiteit Nederland.

Kitade, K. (2006). The Negotiation Model in Asynchronous Computer-mediated Communication (CMC): Negotiation in Task-based Email Exchanges. *CALICO Journal, 23*(2), 319-348.

Kötter, M. (2003). Negotiation of Meaning and Codeswitching in Online Tandems. *Language Learning & Technology, 7*(2), 145-172.

Kozar, O. (2015). Language education via audio/videoconferencing (LEVAC): A discursive investigation. *Linguistics and Education, 31*, 86-100. doi:http://dx.doi.org/10.1016/j.linged.2015.05.007

Kozar, O. (2016a). Perceptions of webcam use by experienced online teachers and learners: a seeming disconnect between research and practice. *Computer Assisted Language Learning, 29*(4), 779-789. doi:10.1080/09588221.2015.1061021

Kozar, O. (2016b). Text chat during video/ audio conferencing lessons: Scaffolding or getting in the way? *CALICO, 33*(2), 231-259.

Kramsch, C. (2006). From communicative competence to symbolic competence. *The Modern Language Journal, 90*(2), 249-252.

Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford, England: Pergamon.

Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
Krashen, S. (1985). *The input Hypothesis: Issues and implications*. London: Longman.
Kress, G. (2000). Design and Transformation: New theories of meaning. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 153-161). London: Routledge.
Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.
Kress, G., & van Leeuwen, T. (2001). *Multimodal Discourse: The modes and media of contemporary communication*. London: Arnold.
Lai, C., & Li, G. (2011). Technology and Task-Based Language Teaching A Critical Review. *CALICO Journal, 28*(2), 1-24.
Lai, C., et al. (2011). Task-Based Language Teaching in Online Ab Initio Foreign Language Classrooms. *The Modern Language Journal, 95*, 81-103. doi:10.1111/j.1540-4781.2011.01271.x
Lamy, M.-N., & Hampel, R. (2007). *Online Communication in Language Learning and Teaching*: Palgrave Macmillan.
Lantolf, J. P. (2000). *Sociocultural theory and second language learning*. Oxford: Oxford University Press.
Lee, L. (2001). Online interaction: negotiation of meaning and strategies used among learners of Spanish. *ReCALL, 13*, 232-244.
Levy, M. (1997). *Computer-assisted language learning: Context and conceptualisation.* Oxford, UK: Oxford University Press

.
Levy, M., & Stockwell, G. (2013). *Call dimensions: Options and issues in computer-assisted language learning*. Oxon: Routledge.
Lewin, K. (1948). *Resolving social conflicts; selected papers on group dynamics*. New York: Harper & Row.
Lewin, K. (1951). *Field theory in social science: selected theoretical papers*: Harper.
Li, S. (2010). The Effectiveness of Corrective Feedback in SLA: A Meta-Analysis. *Language Learning, 60*, 309-365.
Lier, L. v. (2005). Case study. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 195-208). New Jersey: Lawrence erlbaum asociates publishers.
Ligorio, M. B. (2001). Integrating communication formats: synchronous versus asynchronous and text-based versus visual. *Computers & Education, 37*(2), 103-125. doi:http://dx.doi.org/10.1016/S0360-1315(01)00039-2
Lin, H. (2015). A meta-synthesis of empirical research on the effectiveness of computer-mediated communication (CMC) in SLA. *Language Learning & Technology, 19*(2), 85-117.
Lin, T.-J., et al. (2014). Task-based Teaching Approaches of Chinese as a Foreign Language in Second Life through Teachers' Perspectives. *Procedia Technology, 13*, 16-22. doi:http://dx.doi.org/10.1016/j.protcy.2014.02.004
Lincoln, Y. S., & Guba, E. G. (2000). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & F. Y. S. Lincoln-Porter (Eds.), *Handbook of qualitative research* (pp. 163-188). Thousand Oaks, CA: Sage.
Lister, R. (2005). Mixed methods: positivists are from Mars, constructivists are from Venus. *SIGCSE Bull., 37*(4), 18-19. doi:10.1145/1113847.1113857
Long. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bahtia (Eds.), *Handbook of second language acquisition* (pp. pp. 413-468). New York: Academic Press.
Long, M. (1983a). Linguistic and conversational adjustments to non-native speaker. *Studies in Second Language Acquisition, 5*, 177-193.

Long, M. (1983b). Native speaker/non-native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics, 4*(2), 126-141.
Long, M. (1985a). Input and second language acquisition theory In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 377-393). Rowley: MA: Newbury House.
Long, M. (1985b). A role for instruction in second language acquisition: Task-based language training. In K. Hyltenstam & M. Pienemann (Eds.), *Modelling and assessing second language acquisition*. Clevedon: Multilingual Matters.
Long, M. (1991). Focus on Form: A Design Feature in Language Teaching Methodology. In C. Kramsch & R. Ginsberg (Eds.), *Foreign Language Research in Cross-Cultural Perspective* (pp. 39-52). Amsterdam: Benjamins.
Long, M. H. (1988). Instructed interlanguage development. In L.Beebe (Ed.), *Issues in Second Language Acquisition: Multiple Perspectives* (pp. 115-141). New York: Newbury House.
Long, M. H. (2007). *Problems in SLA*. Mahwah, NJ: Lawrence Erlbaum Associates.
Long, M. H. (2015). *Second language acquisition and task-based language teaching*. Malden, MA: Wiley-Blackwell.
Long, M. H., & Robinson, P. (1998). Focus on form: Theory, research, and practice. In C. Doughty & J. Williams (Eds.), *Focus on Form in Classroom Second Language Acquisition* (pp. 15-41). Cambridge: Cambridge University Press.
Loschky, L. (1994). Comprehensible Input and Second Language Acquisition. *Studies in Second Language Acquisition, 16*(03), 303-323. doi:doi:10.1017/S0272263100013103
Mackey, A. (1999). INPUT, INTERACTION, AND SECOND LANGUAGE DEVELOPMENT. *Studies in Second Language Acquisition, 21*(04), 557-587. doi:doi:null
Mackey, A., et al. (2012). Interactionist approach. In S. Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquistion* (pp. 7-24). New York: NY: Routledge.
Mackey, A., & Gass, S. M. (2005). *Second language research: Methodology and design*. Hillsdale NJ: Lawrence Erlbaum Associates.
Mackey, A., & Goo, J. (2012). Interaction Approach in Second Language Acquisition *The Encyclopedia of Applied Linguistics*: Blackwell Publishing Ltd.
Magnan, S. S. (2007). Commentary: The promise of digital scholarship in SLA research and language pedagogy. *Language Learning & Technology, 11*(3), 152-155.
Mathison, S. (1988). Why Triangulate? *Educational researcher, 17*(2), 13-17. doi:10.2307/1174583
Maxwell, S. E., & Delaney, H. D. (2004). *Designing Experiments and Analyzing Data: A Model Comparison Perspective*: Taylor & Francis.
Mcniff, J., & Whitehead, J. (2011). *All you need to know about Action Research*: SAGE.
Merriam, S. B. (1990). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.
Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expended sourcebook*. Thousand Oaks: Sage.
Mills, G. E. (2011). *Action research: A guide for the teacher researcher* (4th ed ed.). Boston: Pearson.
Mitchell, R., et al. (2013). *Second language learning theories* (3rd ed ed.). New York, NY; London, UK: Routledge.
Möllering, M., & Levy, M. (2012). Intercultural Competence in Computer-Mediated Communication: An Analysis of Research Methods. In M. Dooly & R. O"Dowd (Eds.), *Researching Online Foreign Language Interaction and Exchange. Theories, Methods and Challenges* (pp. 233-265). Bern: Lang.
Möllering, M., & Ritter, M. (2008). CMC and intercultural learning. In F. Zhang & B. Barber (Eds.), *Handbook of Research on Computer-Enhanced Language Acquisition and Learning* (pp. 361-376). Hershey, PA: IGI Global.

Negretti, R. (1999). Web-based activities and SLA: A conversation analysis research approach. *Language Learning & Technology, 13*(1), 75-87.

Nobuyoshi, J., & Ellis, R. (1993). Focused communication tasks and second language acquisition. *ELT Journal, 47*, 203-210.

Norris, S. (2004). *Multimodalinteraction: A methodological framework.* . New York: Routledge.

Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge: Cambridge University Press.

Nunan, D. (1992). *Research methods in language learning*. Cambridge: Cambridge University Press.

Nunan, D. (1993). *Teachers interactive decision-making*. National Centre for English Language Teaching and Research, Macquarie University. Sydney, NSW.

Nunan, D. (2004). *Task-based language teaching*. Cambridge: Cambridge University Press.

Nunan, D. (2005). Classroom research In E. Hinkel (Ed.), *Handbook of Research in Second Language Teaching and Learning*. Mahwah, N. J. : Lawrence Erlbaum.

Nunan, D., & Phill, J. (2002). *Adult learners' perceptions of out-of-class access to English*. The English Centre, University of Hong Kong.

O'Donoghue, T. A., & Punch, K. (2003). *Qualitative Educational Research in Action: Doing and Reflecting*: RoutledgeFalmer.

Ortega, L. (2009). Interaction and attention to form in L2 text-based computer-mediated communication. In A. Mackey & C. Polio (Eds.), *Multiple perspectives on interaction*. New York: Routledge.

Ortega, L. (2011). ALA after the social turn: Where cognitivism and its alternatives stand. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 167-180). Abingdon, UK: Routledge.

Ortega, L., & González-Lloret, M. (2014). *Technology-mediated TBLT : Researching technology and tasks*. Amsterdam: John Benjamins Publishing Company.

Oxford, R. (2006). Task-based language teaching and learning: An overview. *Asian EFL Journal, 8*, 94-121.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know.* Boston: Heinle & Heinle.

Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed ed.). Thousand Oaks, CA: Sage Publications, Inc.

Pellettieri, J. (2000). Negotiation in cyberspace: The role of chatting in the development of grammatical competence. In M. Warschauer & R. G. Kern (Eds.), *Network-Based Language Teaching: Concepts and Practice* (pp. 59-86). Cambridge, England: Cambridge University Press.

Petersen, K., & Sachs, R. (2015). The langauge classroom in the age of networked learning. In R. P. Leow, L.Cerezo, & M. Baralt (Eds.), *Technology and L2 learning: A psycholinguistic approach*. Berlin, Germany: De Gruyter Mouton.

Pica, T. (1987). Second-language acquisition, social interaction, and the classroom. *Applied Linguistics, 8*, 3-21.

Pica, T. (1994). Research on negotiation: what does it reveal about second language learning conditions, processes, and outcomes? *Language Learning, 44*(3), 491-527.

Pica, T., & Doughty, C. (1985a). Input and interaction in the communicative langauge classroom: a comparison of teacher-fronted and group activities. In S. Gass & C. Madden (Eds.), *Input in Second Language Acquisition*. Rowley, MA: Newbury House.

Pica, T., & Doughty, C. (1985b). Non-native speaker interaction in the ESL classroom. In S. Gass & C. Madden (Eds.), *Input in Second Language Acquisition*. Rowley, MA: Newbury House.

Pica, T., & Doughty, C. (1985c). The role of goup work in classroom second language acquisition. *Studies in Second Language Acquisition, 7*(2), 63-90.

Pica, T., et al. (1991). Language Learning Through Interaction. *Studies in Second Language Acquisition, 13*(03), 343-376.
Pica, T., et al. (1993). Choosing and using Communication Tasks for Second Language Instruction and Research. In G.Grookes & S. M. Gass (Eds.), *Tasks Language Learning: Integrating Theory and Practice* (pp. 9-34). Clevedon: Mulilingual Matters.
Pica, T., et al. (1996). Language learners' interaction: How does it address the input, output, and feedback needs of L2 learners?*. *TESOL Quarterly, 30*(1), 59-84. doi:10.2307/3587607
Pica, T., et al. (1987). The impact of interaction on comprehension. *TESOL Quarterly, 21*(4), 737-758. doi:10.2307/3586992
Plonsky, L., & Gass, S. (2011). Quantitative research methods, study quality, and outcomes: The case of Interaction Research. *Language Learning, 61*(325-366).
Reason, P., & Bradbury, H. (2001). Introduction: inquiry and participation in search of a world worthy of human inspiration. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: participative inquiry and practice* (pp. 1-14). London: Sage.
Reason, P., & Bradbury, H. (2008). *The Sage handbook of action research: participative inquiry and practice* (2nd Ed ed.). Los Angeles: London: Sage.
Richards, J. C. (2001). *Curriculum development in language teaching*. Cambridge: Cambridge University Press.
Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching* Cambridge: Cambridge University Press.
Richards, K. (2003). *Qualitative inquiry in TESOL*. Basingstoke: Palgrave Macmillan.
Ritchie, J. (2003). The application of qualitative research methods. In J. Ritchie & J. Lewis (Eds.), *Qualitative Research in Practice: Public Knowledge and Private Lives*. London: SAGE.
Robinson, P. (1995). Attention, memory and the 'noticing' hypothesis. *Language Learning, 45*, 285-331.
Robinson, P. (2003). Attention and memory during SLA. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 631-678). Oxford, England: Blackwell.
Rosell-Aguilar, F. (2005). Task design for audiographic conferencing: Promoting beginner oral interaction in distance language learning. *Computer Assisted Language Learning, 18*(5), 417-442.
Rouhshad, A., et al. (2016). The nature of negotiations in face-to-face versus computer-mediated communication in pair interactions. *Language Teaching Research, 20*(4), 514-534.
Rubin, H. J., & Rubin, I. (2005). *Qualitative interviewing: the art of hearing data* (2nd Ed ed.). Thousnd Oaks, London, New Delhi: SAGE.
Salaberry, M. R. (2000). L2 morphosyntactic development in text-based computer-mediated communication. *Computer Assisted Language Learning, 13*(1), 5-27.
Salmon, G. (2003). *E-moderating: The key to teaching and learning online*. London: Kogan Page.
Samuda, V., & Bygate, M. (2008). *Tasks in second language learning*. New York: Palgrave Macmillan.
Santoro, G. M. (1995). What is computer mediated communication? In Z. L. Berge & M. P. Collins (Eds.), *Computer Mediated Communication and the Online Classroom: Overview and Perspectives* (pp. 11-27). Cresskill, NJ: Hampton Press.
Satar, H. M. (2013). Multimodal language learner interactions via desktop videoconferencing within a framework of social presence: Gaze. *ReCALL, 25*(01), 122-142.
Sauro, S. (2011). SCMC for SLA: A research synthesis. *CALICO Journal, 28*(2), 369.
Scarcella, R. C., & Oxford, R. L. (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston: Heinle & Heinle.
Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*, 129-158.

Schmidt, R. (1995). Consciousness and foreign language learning: A tutorail on the orale of attention and awareness in learning. In R. Schmidt (Ed.), *Attention and awareness in foreign langauge learning* (pp. 1-64). Honolulu, Hawai'i: University of Hawai'i.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-33). Cambridge: Cambridge University Press.

Sharwood Smith, M. (1991). Speaking to many minds: On the relevance of different types of language information for the L2 Learner. *Second language research, 7*(2), 118-132.

Sharwood Smith, M. (1993). Input enhancement in instructed SLA. *Studies in Second Language Acquisition, 15*(02), 165-179.

Sharwood Smith, M. (1994). *Second language learning : theoretical foundations*. New York: Longman.

Silverman, D. (2001). *Interpreting qualitative data: Methods for analysising talk, text and interaction* Thousand Oaks: Sage.

Skehan, P. (1996). A framework for the implementation of task-based instruction. *Applied Linguistics, 17*, 38-62.

Skehan, P. (1998). Task-Based Instruction. *Annual Review of Applied Linguistics, 18*, 268-286.

Smith, B. (2003a). Computer mediated negotiated interaction: An expanded model. *The Modern Language Journal, 87*(1), 38-57.

Smith, B. (2003b). The use of communication strategies in computer-mediated communication. *System, 31*(1), 29-53.

Smith, B. (2004). Computer-mediated negotiated interaction and lexical acquisition. *Studies in Second Language Acquisition, 26*(3), 365-398.

Sotillo, S. M. (2000). Discourse functions and syntactic complexity in synchronous and asyncronous communication. *Language Learning & Technology, 4*(1), 82-119.

Stickler, U., et al. (2004). *Distance and virtual distance: preliminary results of a study of interaction patterns in synchronous audio graphic CMC and face-to-face tutorials in beginners' language tutorials.* Paper presented at the the 6th International Symposium on Applied Linguistics and Language Teaching, University of Northern Iowa, Beijing, Shanghai,.

Stickler, U., & Shi, L. (2013). Supporting Chinese speaking skills online. *System*, 1-20.

Stickler, U. a. H., Regine. (2015). Transforming teaching: new skills for online language learning spaces. In R. Hampel & U. Stickler (Eds.), *Developing online language teaching research-based pedagogies and reflective practices*. Houndmills: Palgrave Macmillan.

Stockwell, G. (2007). A review of technology choice for teaching language skills and areas in the CALL literature. *ReCALL, 19*(02), 105-120.

Stockwell, G. (2010). Effect of multimodality in CMC tasks. In M. Thomas & H. Reinders (Eds.), *Task-based language learning and teaching with technology*: Bloomsbury Academic.

Stringer, E. T. (2007). *Action Research*: SAGE Publications.

Sullivan, N., & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System, 24*(4), 491-501.

Swain, M. (1985). Communicative competence: some roles of comprehensible input and comprehnsible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.

Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *Canadian Mod- ern Language Review, 50*, 158-164.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle and Practice in Applied Linguistics: Studies in honour of H. G. Widdowson*. Oxford: Oxford University Press.

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford: OUP.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook on Research in Sec- ond Language Learning and Teaching*. Mahwah, NJ: Lawrence Erlbaum.

Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics, 16*, 371-391.

Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research*. Thousand Oaks, CA: Sage Publications.

Telles, J. A. (2010). Do we really need a webcam?-The uses that foreign language students make out of webcam images during teletandem sessions. *Letras & Letras, 25*(2).

Thomas, M. (2013). Task-based language teaching and CALL. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Comtemporary computer-assisted language leanring* (pp. 341-358). London: Continuum.

Tierney, R. J., et al. (1999). *Reading strategies and practices: A compendium* (5th ed.). New York: Allyn & Bacon.

Toyoda, E., & Harrison, R. (2002). Categorization of text chat communication between learners and native speakers of Japanese. *Language Learning & Technology, 6*(1), 82-99.

Van den Branden, K. (2006). *Task-based language education: From theory to practice*. Cambridge, UK: CUP.

van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-260). New York: Oxford University Press.

Vandergriff, I. (2016). *Second-language discourse in the digital world: Linguistic and social practices in and beyond the networked classroom*. Amsterdam, Netherlands: John Benjamins.

VanPatten, B., & Williams, J. (2014). *Theories in second language acquisition : an introduction*. Florence: Taylor and Francis

Varonis, E. M., & Gass, S. (1985). Non-native/non-native conversation: A model for negotiation of meaning. *Applied Linguistics, 6*(1), 71-90.

Verschuren, P. J. M. (2003). Case study as a research strategy: some ambiguities and opportunities. *International Journal of Social Research Methodology, 6*(2), 121-139.

Vetter, A., & Chanier, T. (2006). Supporting oral production for professional purposes in synchronous communication with heterogenous learners. *ReCALL, 18*(01), 5-23.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wang, Y. (2004a). Distance language learning: Interactivity and fourth-generation internet-based videoconferencing. *CALICO Journal, 21*(2), 373-395.

Wang, Y. (2004b). Supporting synchronous distance language learning with desktop videoconferencing. *Language Learning & Technology, 8*(3), 90-121.

Wang, Y. (2005). *An inquiry into oral-visual interaction via Internet-based desktop videoconferencing for Language acquisition at a distance.* (Doctor of Philosophy), Griffith University, Nathan, QLD.

Wang, Y. (2006). Negotiation of meaning in desktop videoconferencing-supported distance language learning. *ReCALL, 18*(1), 122-145.

Wang, Y. (2007). Task design in videoconferencing-supported distance language learning. *CALICO Journal, 24*(3), 591-630.

Wang, Y. (2008). *Distance language learning and desktop videoconferencing: A Chinese language case study*. Saarbrücken, Germany: VDM Verlag Dr. Müller.

Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal, 13*(2&3), 7-26.

Warschauer, M. (1997). Computer-mediated collaborative learning: theory and practice. *The modern language journal, 81*(4), 470-481.

Wertsch, J. V. (2007). Mediation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The cambridge campanion to Vygotsky* (pp. 178-192). Cambridge Univeristy Press: Cambridge.

White, L. (1989). *Universal grammar and second language acquisition*. Amsterdam: John Benjamins.

Willis, J. (1996a). A flexible framework for task-based learning. In J. Willis & D. Willis (Eds.), *Challenge and Change in Language Teaching* (pp. 52-62). Oxford: Heinemann.

Willis, J. (1996b). *A framework for task-based learning*. Harlow: Addison Wesley Longman.

Willis, J. (1998). Task-based learning? What kind of adventure? . Retrieved from http://www.education.auckland.ac.nz/webdav/site/education/shared/about/centres/lipis/docs/Task-Based Learning-What Kind of Adventure.html

Yates, L. (2003). Interpretive claims and methodological warrant in small-number qualitative, longitudinal research. *International Journal of Social Research Methodology, 6*(3), 223-232.

Yilmaz, Y., & Yuksel, D. (2011). Effects of communication mode and salience on recasts: A first exposure study. *Language Teaching Research, 15*(4), 457-477.

Yim, S., & Warschauer, M. (2016). CALL and electronic media. In K. Hyland & P. Shaw (Eds.), *The Routlege handbook of English for academci purposes* (Vol. 592-607). London and New York: Routledge.

Yin, R. K. (2009). *Case study research: Design and method* (4th ed ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2014). *Case study research: Design and Methods* (5th ed ed.). Thousand Oaks, CA: SAGE.

Zheng, B., & Warschauer, M. (2017). Epilogue: Second language writing in the age of computer-mediated communication. *Journal of Second Language Writing, 36*, 61-67.

Ziegler, N. (2016). Taking technology to task: technology-mediated TBLT, performance, and production. *Annual Review of Applied Linguistics, 36*, 136-163.

Appendix A Post-trial survey in the first cycle

Age: _____ Gender: _____

How many online sessions that you have attended_____

1. Please rank the following features of Blackboard Collaborate according to their usefulness in online sessions.
   Number 5 represents most useful, and Number 1 least useful.
   Please put a number in each bracket.
   a. Video or the profile image. ( )
   b. Audio ( )
   c. Text chat ( )
   d. Feedback menu (the emoticons), Step Away button, Raise Hand button, Polling Response menu ( )
   e. The whiteboard ( )
   f. Application sharing ( )
   g. Web tour ( )
   h. Interactive recording ( )
   i. File transfer ( )

2. Please rank the following features of Blackboard Collaborate according to your preference in online sessions.
   Number 5 represents you used most, and Number 1 used least.
   a. Video or the profile image. ( )
   b. Audio ( )
   c. Text chat ( )
   d. Feedback menu (the emoticons), Step Away button, Raise Hand button, Polling Response menu ( )
   e. The whiteboard ( )
   f. Application sharing ( )
   g. Web tour ( )
   h. Interactive recording ( )
   i. File transfer ( )

3. Please write down what did you like most when using Blackboard Collaborate for learning Chinese and why.

4. Please write down what did you like least when using Blackboard Collaborate for learning Chinese and why.

5. Please write down what do you think of the tasks in these two online sessions? Do you think them helpful? If so, in what aspects? If not, why?
   Task 1:

   Task 2:

6. Would you like to continue participating in online sessions next semester? Do you have any suggestions to online sessions tasks?

7. Other comment.

Appendix B Post-trial focus group interview questions

1) Which functionality do you like most with Blackboard Collaborate? Why?

2) Which functionality do you like least with Blackboard Collaborate? Why?

3) With which application that you think you learned the most and the least? Can you explain the reason?

4) What were the particular technology challenges in the online sessions?

5) Did you ask teachers for help when you faced any difficulties in your online sessions?

6) Have you had any experience in contacting the Helpdesk to solve technical or access problems?

7) In general, do you think Blackboard Collaborate is conducive to your Chinese learning online? In what aspects? How about the tasks?

8) Comparing these two online tasks (family tree and seeing a doctor) which one is more engaging? Can you explain the reason? Which one do you think is more difficult to accomplish? Why？

Appendix C Pre-session survey in the second cycle

1. Age: .....

2. Sex (Please circle as appropriate):

Male Female

3. How confident do you feel about using information and communications technology? Please circle the appropriate answer below.

Extremely Very A bit Not at all

4. How often do you use the following means of online communication for educational (e.g. lectures, tutorials, practicing Chinese) or your own purposes (e.g. social, recreational, etc.)? Please indicate in the table below as appropriate.

	SOCIAL/RECREATIONAL			Educational		
	Never	Sometimes	Frequently	Never	Sometimes	Frequently
1. Email						
2. Instant Messaging (Chat)						
3. Texting (SMS)						

4. Real time lectures/

discussions

5. Deferred time

lectures/discussions

6. Audio-conferencing

(e.g. Yahoo! IM)

7. Video-conferencing

(using webcam)

8. Video-conferencing

(dedicated conferencing

suite)

9. Others (please

specify):

_____

5. Apart from this project, have you any experience of distance language learning?

Yes No

6. Apart from this project, have you any experience of online language learning?

Yes No

7. In your current studies, which aspects do you want to concentrate on in particular?

Please put an X in the appropriate bracket(s) below that best describe your own experience. You may select more than one.

a. My fluency ( )

b. My pronunciation ( )

c. My listening ability ( )

d. My vocabulary ( )

e. My grammar and structures ( )

f. My reading ( )

g. My writing ( )

h. My speaking ability ( )

i. My conversational tactics. (e.g. asking in Chinese for repletion and clarification of meaning, inferring meaning from the context, etc.) ( )

j. Spontaneous replies ( )

K. Others (please specify) ( )

8. How would you complete the following statements? Please tick the appropriate column.

	Essential	Very important	Quite important	Useful but not essential	Not important at all
1. When learning a language, the support of a group is . . .					
2. When learning a language, immediate feedback from a teacher is ...					
3. When learning a language, the support of family or friends is . . .					

4. When learning a language, the opportunities to communicate with others (peers or teacher) in target language is…

5. When learning a language, the ability to communicate with others (peers or teacher) in target language is…

Thank you for taking part in this project!

Appendix D Post- session Survey in the second cycle

1. Your gender_____

2. Your age_____

3. Please choose the most adequate answer and put it in each bracket.
   5=strongly agree, 4=agree, 3=I don't know, 2=disagree, 1=strongly disagree

About the web conferencing tool	
The layout of the interface was clear	( )
You know where to find certain tools	
The tools were easy to use	( )
The design was visually appealing	( )
The whiteboard slides were uploaded and shown in a reasonable time	( )
The website was uploaded in a reasonable time	( )
The application share was uploaded in a reasonable time	( )
The audio quality was good	( )

The video quality was good ( )

You can find alternative way to communicate with others ( )

It was easy to set up

It was easy to install

Other comments: ( )

About the tasks

The listening instructions were easy to understand ( )

The texts were easy to understand ( )

The level of the tasks difficulty was appropriate ( )

( )

The tasks were interesting ( )

It helped me to improve my Chinese communicative skills

I enjoyed doing the tasks with peers ( )

I have sufficient time to finish the tasks

What I learned in the online sessions was useful outside of class

What I learned in the online sessions was needed outside of class ( )

4 . How difficult of the task in the online sessions?

Please indicate on the diagram below.

Very easy Very difficult

1 2 3 4 5

5. Please rank the following features of Blackboard Collaborate according to their usefulness in online sessions.

Number 5 represents most useful, and Number 1 least useful.

Please put a number in each bracket.

a. Video or the profile image ( )

b. Audio ( )

c. Text chat ( )

d. Feedback menu (the emoticons), ( )

e. Step Away button ( )

f. Raise Hand button ( )

g. Polling Response menu ( )

h. Interactive whiteboard

( )

i. Application sharing ( )

j. Web tour ( )

k. Interactive recording ( )

l. File transfer ( )

6. Through the five online sessions, what aspects of Chinese language learning did you feel improved? Please put an X in the appropriate bracket(s) below that best describe your own experience. You may select more than one.

a. My fluency ( )

b. My pronunciation ( )

c. My listening ability ( )

d. My vocabulary ( )

e. My grammar and structures ( )

f. My reading (Chinese characters) ( )

g. My writing ( )

h. My speaking ability ( )

i. My conversational tactics. (e.g. asking in Chinese for repetition and clarification of meaning, inferring meaning from the context, etc.) ( )

j. Spontaneous replies ( )

K. Others (please specify) ( )

7. Do you remember some expressions, sentence structure or vocabulary you learned in the online sessions? _____Yes/ No

Can you give the first three examples you can remember?

_____ _____

8. Below is a list of possible strength of collaborative learning facilitated by Blackboard Collaborate for language learning? Please put an X in the appropriate brackets(s) when online sessions helped you. You may select more than one:

Strengths	Results
Building my confidence in speaking and listening Chinese	( )

Building my confidence in reading and writing Chinese characters on computers

Reducing my anxiety in learning Chinese ( )

Increasing my motivation in learning the language

Increasing my motivation in attending class ( )

Allowing instant feedback from the teacher/peers ( )

Allowing mistakes to be corrected immediately ( )

Negotiating for meaning using Chinese ( )

Allowing me to ask for more information using Chinese ( )

Allowing me to clarity meaning using Chinese ( )

Inferring meaning according to the context ( )

Having fun with other students ( )

Other (please specify) ( )

9. How long did it take you to feel comfortable in the online environment?

Please put an X in the appropriate brackets(s).

I was immediately comfortable with the environment ( )

I was confortable with the environment after:

- the training session ( )

- two sessions (including training) ( )

- more than two sessions ( )

I never became confortable with the environment ( )

10. How long did it take you to feel confident about using the applications (e.g. whiteboard, web tour, text chat, audio/video communication)?

Please put an X in the appropriate brackets(s).

I was immediately confident with the environment ( )

I was confident with the environment after:

- the training session ( )

- two sessions (including training) ( )

- more than two sessions ( )

I never became confident with the environment ( )

11. How important do you believe is Blackboard Collaborate to the improvement of vocabulary, grammar and pronunciation? Please indicate on the diagram below.

Important ——————————————————————————Not important

1 2 3 4 5

12. Please choose the most adequate answer to reflect your online experience with Blackboard Collaborate.

6=strongly agree, 5=agree, 4=somewhat agree, 3=somewhat disagree, 2=disagree, 1=strongly disagree

Indicator statement	6= Strongly agree	5=agree	4=somewhat agree	3= dis
1. The quality of learning with this tool was excellent				
2. I felt comfortable collaborating through this tool				

3. This tool is an excellent medium for collaborative learning as demonstrated by the activities associate with this tool

4. This tool enables me to form a sense of online community.

5. The activities conducted through this tool help me to form a sense of online community

6. I felt comfortable interacting with each participants using this tool

7. I felt comfortable participating in class tasks with this tool

8. The teacher facilitate learners interaction in the online sessions

9. I could identify my classmates online using this tool

10. My level of learning that took place in the online sessions was of the highest quality

11. Overall the online tasks met my learning expectations.

11. Overall the teacher for the online sessions met my expectations

---

13. Please write down what you liked about the online sessions.

14. Please write down what you did not liked about the online sessions.

15. If you were given a choice between one-to-one and many-to-many interaction (i.e. a group discussion) supported by a videoconferencing tool, which one would you choose? Please explain why?

16. Other comment?

Appendix E Post session interview questions:

1. What do you think of the audio quality of Blackboard Collaborate in this session?

2. What do you think of the video quality of Blackboard Collaborate in this session?

3. Do you think Blackboard Collaborate is easy to be installed and used? Any difficulty when you used it? Do you think the training session is necessary for the first time users?

4. Do you think the video we filmed for the online sessions helpful? How did you use the video to help you learning Chinese? During the process of task? Before the task? Which way do you prefer?

5. Do you think the difficulty level of the tasks appropriate for you to increase your Chinese competence? Why? (show the printed task slides)

Task1:

Task2:

Task3:

Task4:

Task5:

6. Do you think the tasks in online sessions were beneficial to your Chinese communicative competence? Why?

Task1:

Task2:

Task3:

Task4:

Task5:

7. Were you engaged when doing online with other students? More details? Which one you liked most/least? Why?

8. Do you think your Chinese language proficiency has been improved after the online sessions? In what aspects?

9. Besides language learning benefits, is there positive/negative influence of the five online sessions brought to you?

10. Do you think the tasks conducted in online sessions are useful in your real life (e.g. talking to your Chinese friends)? Which task do you think is the most useful one? Why? Is there any task that you think is useless?

11. Is there any task that you think is really difficult to accomplish? Why?

How did you deal with it?

12. Do you think you have sufficient time completing the tasks? If not how did you deal with it?

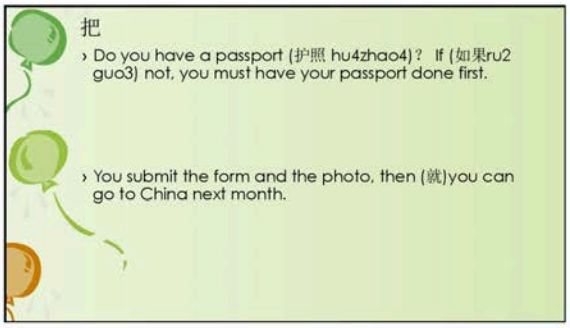
13. Under what circumstance you would like to use English? Why you choose to use English rather than Chinese? Time limitation? Audio quality?

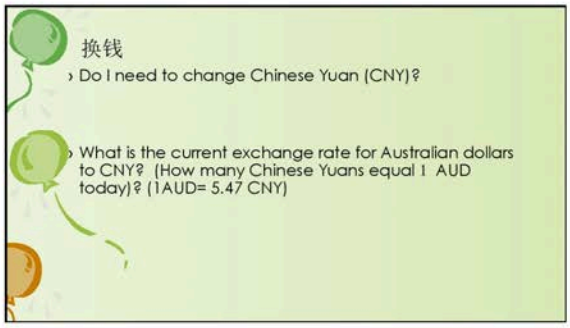
14. In what situation you would like to use video channel/web camera? Why?

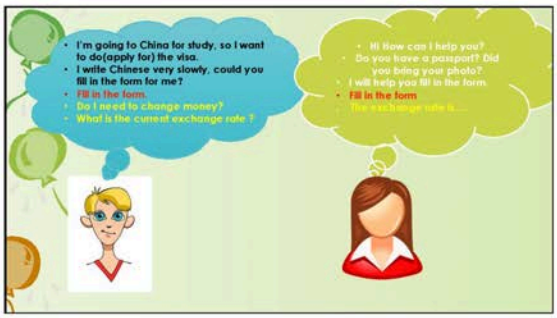
15. Do you think that Blackboard Collaborate should be used continuously in the Chinese program at Macquarie University? Why?

16. Other comment.

Appendix F The first online session slides in the second cycle







Guide for the staff in the first online session

Hello, Can I help you? (有什么可以帮您？)

Do you have a passport? If not, you must have your passport

done first.

Did you bring your photo?

Please get one form there; I will tell you how to fill it.

Ok, I will fill in the form for you.

<u>Then Ask questions according to the form on the WB.</u>

Explain the content of the form in spoken Chinese.

E.g., 学生问：姓名怎么填？　工作人员：　你叫什么名字？

职业：　what do you do?

出生年月日：　when is your birthday?

您的大学名称（cheng1）是什么？

您要去中国哪个大学学习？

学习多长时间: How long time will you study in China?

What’s their contact number? 他们的电话号码是多少？

…

All done （好了）

After you submit the form and the photo （把 sentence）, then (就) you can go to China next month (下个月你就可以去中国了)

You need to change RMB first, the exchange rate is 1 AUD=5.6 CNY

Guide for the student in the first online session

Please note: This Guide is written in a narrative form. When you practice it with your partner, you need to transform it into a dialogue.

你好，我要去中国学习，我想办签证

我有护照（hu4zhao4, passport），

我带照片来了

我的汉字写得很慢，你可以帮我填表吗？

<u>Then Ask questions according to the form on the WB.</u>

E.g., 姓名怎么填？ 职业写什么？

我叫_____(your name)，

男/女

_____年___ 月____号(your birthday)

出生在_____（birth place, e.g., 悉尼 xi1ni2, Sydney），

是 MQ 大学外语学院的学生，我的专业是___ (e.g., 中文)。

我要去____(e.g., BLCU 北京语言大学)，学习中文专业 6 个月，

他们的电话号码是 010 8677 5645

我去中国用不用换人民币（CNY），What is the current exchange rate today？

Appendix G The second online session slides in the second cycle

请再说一遍！
Please say it again！

我不懂！
I don't understand!

…什么意思？
What's the meaning of ….

…怎么说？
How to say….

你可以写一下吗？
Can you write it down?

Second online session : mailing a gift

CHN 105 Semester 2, 2013
Sijia Guo

Drag and drop the following words to match to the pictures and the measure words

颜色

- What other colors do you have for this (shirt)? Do you have a green one?

号码

- What size do you wear? (多大)
- These pants are a bit big (有点儿+adj), do you have a small one (adj+一点儿)?

A比B+adj.(+一点儿/多了)

- She is taller than me. She needs to wear a longer one (adj +一点儿).
- This red one is more suitable than the black one.
- Airmail is more expensive/quicker than seamail.

Task : Choose clothes for parents and send them to China

"你"要在MQ商场给爸爸妈妈买两/三件衣服，还要寄到中国。你一共有$ 200 (including the gifts and the postage cost)。
Three roles: "你"，售货员，邮局工作人员

You need to work together to accomplish the following tasks:

1) Select appropriate gifts for your parents, taking into account the style, size, colors and price.
2) Choose an appropriate way to send them to China.
3) Don't forget the budget: a total of $200. In the end, let's see which group has the least money left over.

Subtask 1: 在MQ商场买衣服

Roles：你和MQ商场售货员

样子						
颜色	绿，白	黑	黑，白	白，黑	绿，白	白，红
号码	大，中	中，小	中，小	大，小	大，中	大，小
价钱 (jia4qian2, price)	$100	$ 100	$ 75	$50	$75	$ 40

Subtask 2: 寄包裹

Roles: 你和邮局工作人员

EMS Price catalogue

航空	2-3 天	1 item	2 items	3 items	4 items
		$30	$40	$ 50	$60
海运	2-3个月	1 item	2 items	3 items	4 items
		$ 5	$10	$15	$20

You can use the following expression:
寄，包裹， 航空， 海运， 多长时间，多少钱？贵，便宜，快，邮费，A比B…

Group presentation

- The "*customer*" needs to tell us what gifts you chose for your mum, including：样子（衣服），颜色，号码，价钱（price），and how much you spend on her.

  E.g. 我给妈妈买了一件大号的红毛衣, $ 75.

- The "*shop assistant*" needs to tell us what gifts that the customer chose for her/his dad, and how much money he/she had left.

  E.g., 他/她送爸爸一套中号黑西服，$100. 还有$ …

- The "*postal worker*" needs to explain which way that the customer chose to send the clothes to China，the reasons and the postage.

  E.g. 他寄航空 ，因为(yin1wei, because) 航空比海运快多了，邮费是$50. 他还有$ …

Appendix H The third online session slides in the second cycle

- Please say it again！
- 请再说一遍！

- I don't understand!
- 我不懂！

- What's the meaning of ….
- …什么意思？

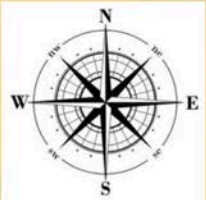
- How to say….
- …怎么说？

- Can you write it down?
- 你可以写一下吗？

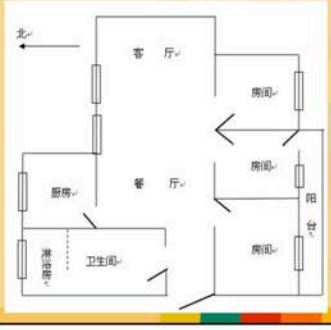
The third online session
Asking for & giving directions
问路

CHN105 2013 Semester Two
By Sijia Guo

Please drag and drop the appropriate characters to match with the picture



A+在B +（的）+direction+边



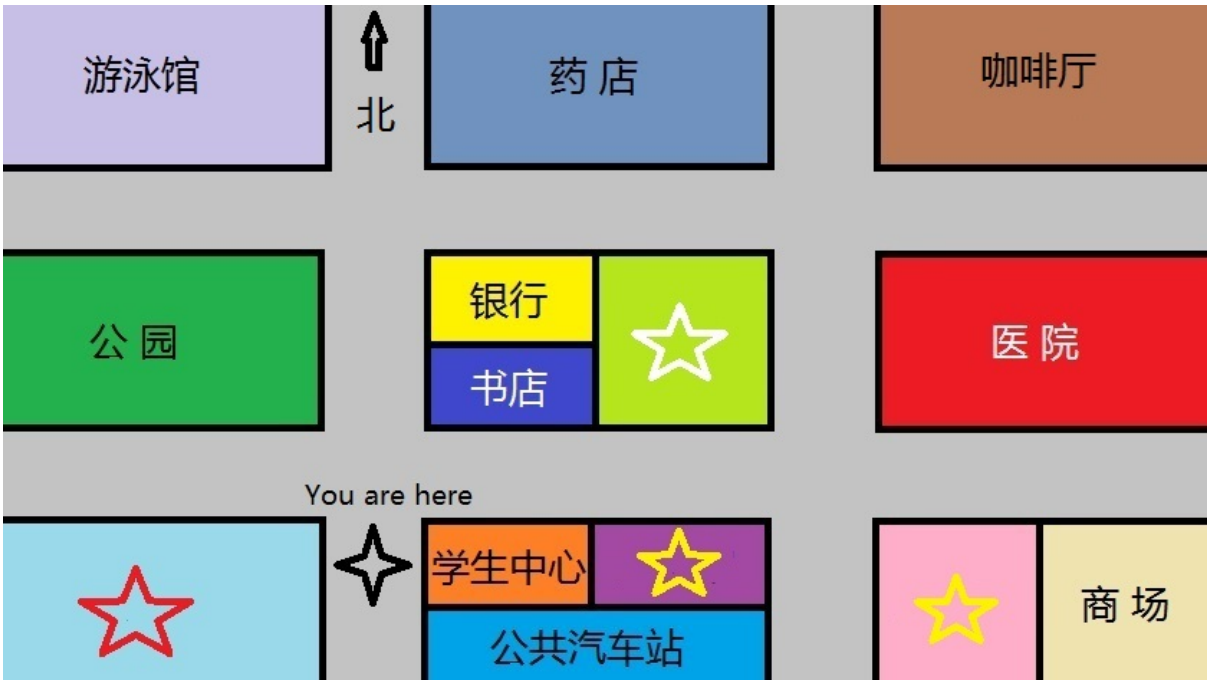
Showing directions

- Walk straight first, then turn right.
- The post office is on the east of the bank, opposite to the park.
- You took the wrong way (V+result). Stop and go back.

Your task:

- **The scenario:** It's orientation day. 你和你的朋友要参观学校.
- Each of you has a campus map with different buildings marked on it and a list of things to do.
- Take turns giving directions (according to the numbered order of the tasks) to get to each building where you need to do the things.
- One person moves the pointer on the whiteboard as the other gives directions. Fill in the building's name when you reach it.
- Draw the route and present it in the main room later and be prepared to give some directions.

Student A's guide in the third online session



The route includes:

1. 去书店买书；

3. 去游泳馆游泳；

5. 去商场买东西；

7. 去咖啡厅和朋友喝咖啡。

You might need the following words or phrases:

先…, 再…., VP（e.g.,上课/去图书馆）以后…, 再…, 就到…了。

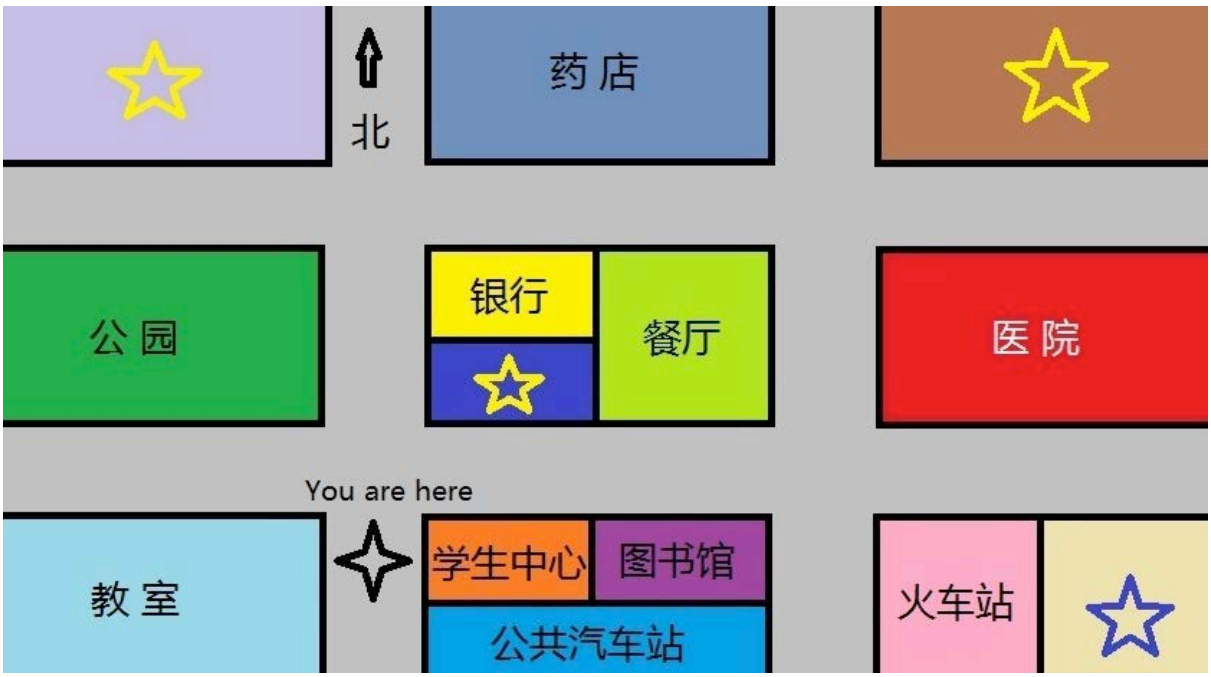
往前走， 往右拐，

A 在 B direction 边 （e.g., 对面，前边）

A direction 边 是…

A direction 边 有…

Student B's guide in the third session



The route includes:

去教室上课；

4. 去餐厅吃饭；

6. 参观图书馆；

8. 坐火车回家

You might need the following words or phrases:

先…, 再…., VP（e.g.,上课/去图书馆）以后…, 再…, 就到…了。

往前走， 往右拐，

A 在 B direction 边 （e.g., 对面，前边）

A direction 边 是…

A direction 边 有…

Appendix I The fourth online session slides in the second cycle

The fourth Online session

CHN105 Semester 2, 2013

Page 2

S+V+过+O
S has been to +place
S+ V+ 过+num.+次+ O

- 中国/Bali岛 (从来)
- How many times have you ever been to 蓝（lan2, blue)山/新西兰（lan2)?
- Although I haven't been to Beijing yet, … (虽然…, 但是…)

Page 3

The task: 圣诞节旅行计划

Design a wonderful Christmas holiday trip plan for you and your friend

- What you need to do :

1) Select a destination considering your experience, have you ever been there before;
2) The Min-Max temperature of the destination (put it on the WB)
3) Calculate the airfare and accommodation cost;
4) Make your travel plan (e.g. ,第(di4)一天, the first day, 去…)

- In the main room, *one of you needs to present a travel itinerary and the total cost; the other one needs to explain the reasons (at least 3) why you chose this destination rather than others（天气，experience，景色，时间，season，etc.)*.
- Guo老师and all the students will be the judge panel. Prepare at least one question for other groups. The plan with the most votes can win the "trophy".

Page 4

The destinations you can choose from:

国家	往返（fan3，return）机票	气温	时间	酒店	景色	季节（ji4jie 2, season）
Bali岛	$1000	? -? 度	4天	$100/晚	气温很舒服，可以去海里游泳， 岛上有很多漂亮的酒店，做SPA($50)。Bali岛夏天景色很美，可是人可能有点儿多。海边晚餐 $50/人,有优美的民族（folk）音乐演奏 $20。租车 $50/天	夏天
北京	$1200	? -? 度	4天	$80/晚	气温非常冷，北京的冬天比悉尼（xi1ni2）冷多了。冬天北京会下雪，可以去爬长城，冬天景色非常美。还可以去王府井买中式衣服，前门吃好吃的中国菜（cai4，food）。地铁，公共汽车$10/天，打的 $50/天	冬天
新西兰	$700	? -? 度	5天	$150/晚	气温很合适。 新西兰全年景色都很美。你可以去蹦极 （beng4ji2, Bungee Jumping， $100/人），爬山，还可以看火山(Volcano）。南岛有有名的红葡萄酒，北岛有好喝的白葡萄酒。可是夏天新西兰常常下雨。租车 $40/天	夏天

Destination:

时间	打算去…	cost
第一天		
第二天		
第三天		
第四天		
第五天		
		一共:

Page 4

我们打算去_____旅行， 因为：

- 1.
- 2.
- 3.

Page 7

The trophy goes to

Page 8

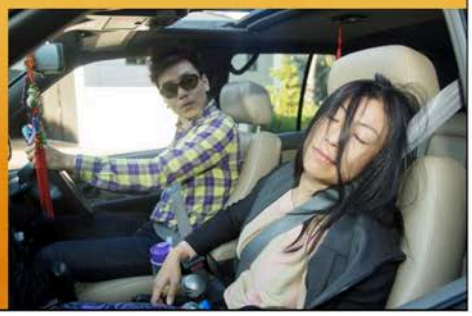
Thank You !!!

9

Appendix J The fifth online session slides in the second cycle

S+V1+着+（O1）+V2+O2

- 司机怎么送Lili去医院



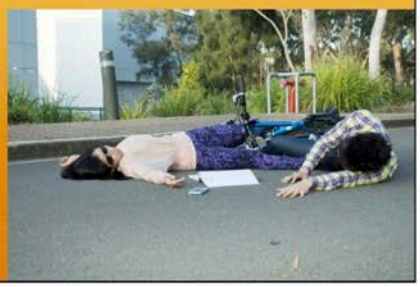
S(receiver)+ 被（叫/让）+O（agent）+V+ other elements

Passive voice

- 撞伤

S(receiver)+ 被（叫/让）+O（agent）+V+ other elements

Lili 怎么了？



S（就）快/要+ V +result+了

Task：retell the story based on the photos

- Download the file with pictures from iLearn. (only download A or B)
- Each of you will have three or four photos in random order. The two sets of photos combine to produce a story. Just the first and last photos are labeled.
- In the breakout room: The first 15 minuets take turns to describe each picture in one or two sentences (using the grammar prompts) to your partner, and work together to put them in order as a whole story. Student A starts with the 1st picture, and it ends up with the 7th/8th picture.
- In the last 5 minutes, Guolaoshi will send you a page with the pictures in random order and you need to rearrange them.
- Later in the main room, each group needs to retell the whole story.

Group 1

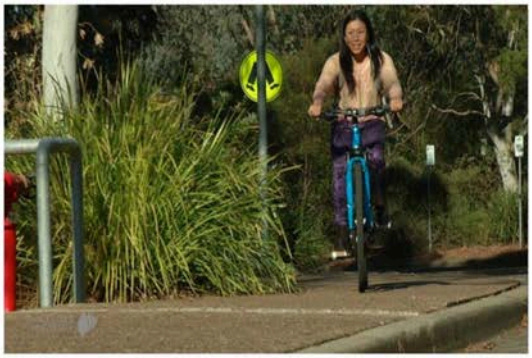
Group 2

Group 3

Survey link

Photos for Student A in the fifth online session (Group 1)

Photos for Student A



No. 1 (the first picture)

V+完+ O；　V1+着+O1+V2+O2

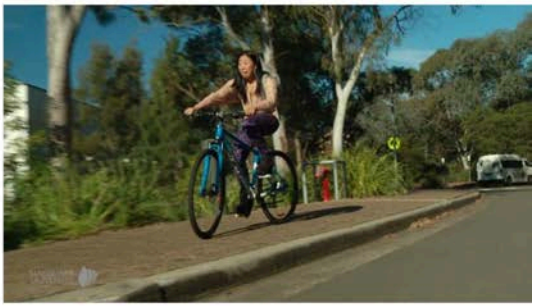
（go back home by bike）

No. 7 (the last picture)

S+V1+着+（O1）+V2+O2

S+V1+着+（O1）+V2+O2

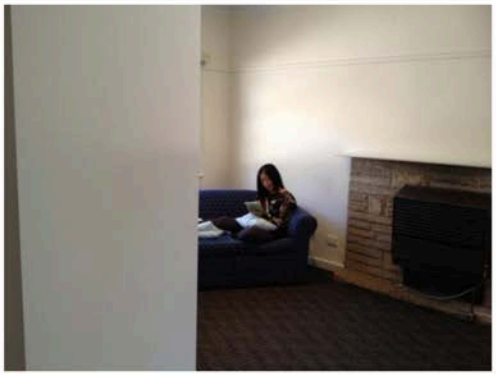
(take her to the hospital)



S（就）快/要+ V +result+了

Photos for student B in the fifth online sessions (Group 1)

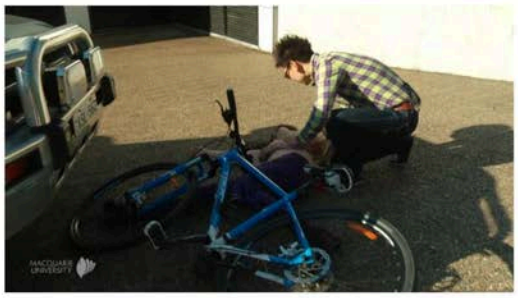
Photos for Student B



门..., S+V1+着+（O1）+V2+O2

The car parked at...,

S 正在/在+V+O 呢



S+ 被（叫/让）+O +V+ other elements

Appendix K Final Ethics Approval

Ethics Application (Ref: 5201300254) - Final Approval

Dear Prof Mollering,

Re: 'Interaction and task design in a collaborative learning environment: A case study of videoconferencing in an Introductory Chinese Course'

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Arts Human Research Ethics Committee.

Approval of the above application has been granted, effective 1/05/2013.

This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Dr Estela Valverde

Mrs Angeline Guo

Prof Martina Mollering

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL

EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).

2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 01/05/14

Progress Report 2 Due: 01/05/15

Progress Report 3 Due: 01/05/16

Progress Report 4 Due: 01/05/17

Final Report Due: 01/05/18

NB: If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/

human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse

effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy/

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not

be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Faculty of Arts Research Office at ArtsRO@mq.edu.au

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely

Dr Mianna Lotz

Chair, Faculty of Arts Human Research Ethics Committee