

University of Southern Queensland

Using Second Life and Skype for Facilitating the Development
of Listening Comprehension in Second Language Learners

A dissertation submitted by

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Certification of Dissertation

The work submitted in this dissertation is original, except as acknowledged in the text. The material herein has not been submitted, either in whole or in part, for any other award at this or any other university except where acknowledged.

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Abstract

The study investigated the effectiveness of using Skype and Second Life as part of facilitation techniques for promoting the development of listening comprehension in learners of second languages. The languages used in the study were: English and Croatian. The 35 participants involved were studying at four universities located in Sydney and Brisbane in Australia, Split in Croatia and Mostar in Bosnia and Herzegovina. The effectiveness of the facilitation techniques, as measured by a pre-test and post-test, and the participants' perceptions of the techniques, as discussed in the interviews, were investigated. Information relating to the affordances of each online tool was also collected during the interviews. Quantitative results indicated that both Second Life and Skype were beneficial tools for facilitating listening comprehension. Qualitative results assisted in building a more comprehensive understanding of the use of both Second Life and Skype for developing listening comprehension. Based on the interview results, a new version of the facilitation technique was developed that utilised both Second Life and Skype and focused on the pedagogical aims of tasks driving the selection of the most appropriate online tools, as determined by the tools' affordances, to be utilised during the tasks. The framework for the selection and use of ICTs for facilitating second language learning was developed to assist educators in planning for using a range of learning tools effectively by aligning their affordances with the learning aims. The continuum of language learning spaces was created to assist in conceptualising the range of learning opportunities available to language learners in various environments and their benefits. Further investigation to identify the strategies language learners can use in virtual learning spaces is suggested. Investigation into the process of virtual acculturation and how it may assist learners' cultural learning and preparation for visiting the target country is recommended. This study highlighted the importance of contact with native speakers and authentic texts and experiences for developing language learners' listening comprehension and how online and virtual learning spaces can be used to facilitate interaction between learners. It also illustrated the need for the selection of online tools for language learning to be based on pedagogy.

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Chapter 1

Introduction

When learning a second language (SL), the development of all four macro-skills (i.e., listening, speaking, reading and writing) is important. Effective listening, as with reading, entails the development of skills in understanding whereas speaking and writing have a greater focus on production (Gibbons, 2002; Josipović Smojver, 2007). Learners of SLs often view listening in the target language as being a laborious task that can result in anxiety about communicating (Graham, 2006; Graham & Macaro, 2008). Jones (2008) promoted the deliberate programming of listening skills development by teachers giving the listening skill as much focus as speaking, reading and writing. To develop listening comprehension, SL learners require real-life or life-like practice at listening to native speakers of their target language. Teachers can utilise authentic texts and authentic audiences to provide learners with the opportunity to interact with the target culture and its artefacts in a meaningful manner that Helgesen (2003) stated as having the potential to increase learner motivation. When SL learners reside in a country where the target language is not spoken natively, it can be difficult to access native speakers and authentic texts from the target culture to gain this experience and practise. Jin and Erben (2007) asserted that computer-mediated communication (CMC) can be used as a medium to provide learners with access to native speakers with the ability to synchronise communication. It can also be used to access authentic texts in the target language.

Online tools allow for synchronous communication that enables learners to participate in authentic communication and negotiate meaning with members of the target culture during conversations without having to wait hours or days for a response (Perez, 2003). Synchronous communication can be achieved through various means, for example, via text chat and video streamed conversations using video-conferencing tools such as Skype (<http://www.skype.com>). Synchronous communication can also be enabled through voice and text tools in multi-user virtual environments (MUVes), such as, Second Life (<http://www.secondlife.com>). Aside from the opportunity to communicate synchronously, MUVes also provide SL learners with an environment to meet in and an avatar, that is, a virtual self representation or presence (Antonacci & Modaress, 2008; Kemp & Lingstone, 2006;

Wehner, Gump, & Downey, 2011). This study focused on the development of listening comprehension skills utilising the learning spaces created by the online tools: Second Life and Skype. Second Life was selected as the virtual tool as virtual Zagreb was well built as a replica by a graphic designer who owned it and there were numerous interesting Australian locations available in Second Life. Other Croatian virtual spaces investigated were not as well structured. Skype was selected as the result of a survey of lecturers and students at Macquarie University studying Croatian demonstrated that many were familiar with the tool and used it previously or regularly. It also contained all necessary features for the study.

1.1 Background to the Research

The researcher, being a Croatian as well as an Australian citizen, was personally interested in Croatian language maintenance in the Croatian community located in Australia. Holding a position as a board member of the Croatian Studies Foundation led to many discussions with the Head of Croatian at Macquarie University around students' language learning development. The Head of Croatian identified listening comprehension and speaking skills as being difficult areas for his Croatian as a second language (CSL) students to develop and was interested in assisting the investigation of methods for improving learning opportunities for his on-campus and distance students. One identified cause was that during class time students had limited opportunities to practise speaking and listening to natively spoken Croatian. For students who did not attend class on campus, concern was expressed regarding their verbal communicative competence. Students were provided with CDs containing dialogues to assist them with their listening comprehension practice. Students who attend classes on campus also participated in class discussions in Croatian. The Blackboard (<http://www.blackboard.com/>) learning management system was used at the time of the study (replaced with Moodle in 2012) to manage the course content online with the main purpose of transferring information and activities to students. Documents were presented in a Microsoft Word document or Portable Document Format (PDF). With students experiencing difficulty with the development of their listening comprehension, the Head of Croatian developed interest in how the Internet could be used to improve SL learners' communicative competence in their target language.

A review of the literature indicated that research was needed in this area

(Deutschmann, Panichi, & Molka-Danielsen, 2009; Eroz-Tuga & Sadler, 2009; Jones & Plass, 2002; Kern, 2006; Perez, 2003). Perez (2003), in particular, posited that there is a need for empirical research in the area of CMC related to teaching methodologies and techniques. Recommendations were also made that focused the areas for research in computer-assisted language learning (CALL) to be on the use of the computer as a medium as well as a tool such as using language learning software (Kern, 2006). Eroz-Tuga and Sadler (2009) identified that there is limited research in the applicability of CMC tools such as Skype for their use in teaching, while Deutschmann, Panichi and Molka-Danielsen (2009) identified a need for research in the use of virtual worlds such as Second Life that may enable CMC for language learning. Jones and Plass (2002) concurred that research in the use of virtual worlds in general and their use for the development of SL skills and communication is currently limited. This study attempts to address the need for the investigation of the computer being used as a medium while focusing on the strengths and weaknesses of different CMC techniques and two online tools: Second Life and Skype as well as addressing the need for the development of techniques that can effectively facilitate the development of listening comprehension skills in language learners who do not live in the country where their target language is spoken natively.

1.2 Context of the study

The study was conducted at four university sites. Two of the universities are Australian universities: Macquarie University and the University of Queensland. Two other universities are located in Split, Croatia and in Mostar, Bosnia and Herzegovina (BiH) respectively. The participants in Australia were learning Croatian while the participants in Croatia and BiH were learning English. In Australia, the only universities to offer CSL classes were Macquarie University located in Sydney, New South Wales and the University of Queensland located in Brisbane, Queensland. Croatian is also offered through most states of Australia at local community schools or at various Croatian clubs. The CSL students from the community courses were unsuitable for this study as they were typically under 18 years of age and did not use a similar curriculum.

Macquarie University offers Croatian language courses with students enrolled as distance students with the option to participate in on-campus sessions. CSL learners have a few different options available that allow for flexibility to study

Croatian, these being: as an elective forming part of a different degree being studied at Macquarie University or at another Australian university (cross-institution); as a Diploma of Languages; and as non-award studies. Approximately 100 students enrol over both semesters each year. Approximately eight to ten students choose to attend the beginner language grammar classes on campus. Distance students can access print material online or have the option of having print material posted to them. Language learning and grammar classes are based around textbooks. Each textbook can be purchased in a pack that includes the textbook and matching CD. The CDs contain spoken versions of selected dialogues from the textbook. Students are set written assignments that require them to provide written responses to language tasks. They are interacting with the course content through the use of their textbooks, completing the set tasks and listening to the CDs while practising their pronunciation and listening comprehension skills. Distance students who do not attend classes on campus have little, if any, verbal contact with their lecturer or other students. Students enrol in Croatian units at Macquarie University mainly due to having Croatian heritage, dating or being married to a Croatian.

At the University of Queensland, Croatian is offered as an adult beginner's course through the Institute of Modern Languages. Upon completion of the course students have the option of sitting an exam and receiving a written statement of their attainment. A certificate of attendance is also available to students who have attended a minimum of 75% of the course. Classes are held once a week for two hours. Approximately 15-20 students begin the year with numbers dropping to around 12 mid-year. The course is offered only in face-to-face mode. The textbook used through the course is the same textbook as the one used in the second level courses as part of the diploma offered at Macquarie University. The textbook is used as a starting point for conversation and content with the activities forming part of the homework set for the course. During course time on campus, the students participate in different tasks aimed at developing their communicative skills: reading, writing, listening and speaking. Students enrol in the course at UQ for similar reasons as those studying Croatian at Macquarie University: they have Croatian heritage and did not learn the language as a child; they are dating or marrying a Croatian and hope to understand and speak Croatian with their new family; or they may wish to learn Serbian and this language is not offered at a Queensland university. Although Croatian and Serbian share many common characteristics, they are not the same

language (Franošić, 1980), yet there are enough similarities that learners of Serbian can advance their language skills by attending the Croatian class.

At the University of Split, English is offered as a major within an Arts Degree or as an elective within other courses. The ESL participants were studying at the Faculty of Law where English is taken by students as part of their Law degree with students attending English classes on campus once a week for an hour and a half. Approximately 25 students enroll in the English class each semester. At the University of Mostar, English is also offered as an elective or as a major within an Arts Degree. The ESL participants were studying English language and literature as part of an Arts Degree at the Faculty of Philosophy. Due to tourism and globalization of industry, the students viewed gaining communicative competence in English as a valuable skill along with other languages such as German.

1.3 Research aims and questions

With the online tools identified as a potential resource for assisting learners to develop their listening comprehension and an identified lack of research in this area (Jauregi et al., 2011; Kern, 2006; Perez, 2003), this study aims at offering new insights into the use of CMC for the learners who have limited access to native speakers of their target language. The study builds on current theories relating to listening comprehension, script theory, and social constructivist theory and learning using CMC by contextualising these concepts on a continuum of language learning spaces. It promotes the concept that online tools can be used in the classroom or from a distance to create learning experiences that display similar characteristics to learning experiences while residing in the target language country. In particular, the identified problem of a lack of communicative competence in the CSL learners at Macquarie University was especially an issue of concern for students who chose to study 100% through distance mode without attending optional on-campus classes. Listening and speaking were the poorer skills among the students. Based on the needs of these students and the identified potential (and need for further research) of using online tools for facilitating learning, the pedagogical aims of this study were: (1) to develop techniques for improving SL learning focusing on listening skills for learners who have limited access to native speakers of their target language; (2) to help improve the opportunities for students to interact with native speakers of their target language through the use of online tools: Second Life and Skype; (3) to extend

current knowledge of the affordances of Second Life and Skype for the development of listening comprehension; and (4) to introduce and examine the concept of listening comprehension development and pedagogy related to a continuum of language learning spaces for the development of listening comprehension skills. The study specifically examined the effectiveness and the participants' perceptions of using Second Life and Skype for developing listening comprehension for communication in the target language. The focus groups were learning English or Croatian and were not currently residing in the country where their target language is spoken as a first language by the majority of residents. The term SL is used in this study to represent a language being learnt as a second or foreign language.

The study attempted to answer the following research questions: (1) What are SL learners' perceptions of using Second Life and Skype for developing listening skills in their target language?; (2) What effects does the use of Second Life and Skype as part of a facilitation technique have on the development of SL learners' listening comprehension?; and (3) What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL? These three research questions complemented each other. The first explored through in-depth interviews whether the participants viewed the Second Life or Skype facilitation technique as a beneficial method for facilitating their listening comprehension development. The second question is similar to the first and explored whether there was a measureable change in listening comprehension. The third question investigated the identified strengths and weaknesses of using Second Life and Skype for developing listening comprehension by exploring the affordances of both online tools and examining under which circumstances each tool offered greater benefits for effective learning. The study attempted to utilise the results to describe both learning spaces in relation to a continuum of language learning spaces. On this continuum, virtual learning spaces are described as being closest in experience to living in the target country. The continuum of language learning spaces is used to demonstrate the importance of CMC in SL learning as well as a balanced approach to learning that takes advantage of many learning spaces available to SL learners. By researching the effect as well as the participants' perceptions of the facilitation techniques, the researcher was able to develop a fuller perspective into the use of Second Life and Skype for facilitating listening comprehension development.

1.4 Terms and definitions

For the purpose of this study, the below definitions are used:

- **Affordance:** Gibson (1979) used the term affordance to explain environments and how an animal interacts with the environment. Gibson acknowledged the importance of the environment in his definition of affordance: "...the affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill" (Gibson, 1979, p.127). In this study, the environment is considered to be the learning space where language learning occurs and the affordances are what the learning space offers the learner, what is enables, either positive or negative.
- **Computer-assisted language learning (CALL):** CALL describes how computer software and applications can be used to facilitate language learning. CALL research considers teaching methodology using computer applications as well as learners' experiences and development (Levy, 1997).
- **Computer-mediated communication (CMC):** CMC is a term used to describe the process of utilizing a computer and computer program (typically in conjunction with the Internet or an Intranet) to facilitate interaction among individuals or groups (Yang, 2011). CMC can be either synchronous in which communication occurs in real-time (Sykes, 2005) or asynchronous in which communication is delayed, for example, using email (Yamada, 2009).
- **Information and communication technologies (ICTs):** ICTs include software and hardware devices that can be used to organise, process and store information. These devices can also be used for communication purposes (Queensland Studies Authority, 2007).
- **Language learning space:** A language learning space is defined in this study as a physical or virtual location where learners can develop their target language skills. This study identifies five main language learning spaces on a continuum of language learning spaces: personal space (home environment); target community locations in external environments (community club or shop where the target language is spoken by the employees); classroom space; online space; virtual space; and the target country. Online language learning spaces are created by online tools. For example, by using online tools that allow groups of people to collaborate together such as a wiki,

learners can collaborate and create shared resources. The distinction is made between online tools and online language learning spaces as one can also use online tools to disseminate information without collaboration.

- **Listening comprehension:** Listening comprehension is viewed as the skill of the listener to quickly process oral texts using semantic (bottom-up) and pragmatic (top-down) processes (Lems, Miller, & Soro, 2010; Sarandi, 2010). Listening comprehension includes interaction and the negotiation of meaning (Flood, 2003; Rost, 2002).
- **Multi-user virtual environments (MUVEs):** A MUVE is a collaborative multi user environment where the user is represented by an avatar and is immersed in an environment. Second Life is classified as a MUVE (Burbles, 2006; Henderson, Huang, Grant, & Henderson, 2009).
- **Online tool:** An online tool is a technological tool that is accessed and used on the Internet. Examples of online tools are: email, online dictionaries, Second Life and Skype. **Schema:** Schema is used to explain how people mentally organise and store their knowledge of the world including linguistic knowledge of the typical process and behaviours expected in typical circumstances. The scripts are used as a reference point to guide behaviour (Hedge, 2002; Nishida, 1999).
- **Second language (SL):** The term SL is used to refer to a language that is not spoken natively by a language learner. The term is used in this study to incorporate the concept of learning a second or foreign language.
- **Second Life:** Second Life is a MUVE where the resources can be created to reflect the real world or an imaginary place with users as the creators of the virtual space and avatars as virtual representations of people located all around the globe. Interaction can take place using synchronous features such as text chat and voice as well as using asynchronous features such as note cards, bulletin boards, and slide shows. Second Life is also referred to as a virtual world (Deutschmann, Panichi, & Molka-Danielsen, 2009; Dieterle & Clarke, 2008; Schwarts, Lin, & Holmes, 2003).
- **Skype:** a communication tool that enables text chatting, video conferencing and audio chatting. Skype can be used for one-on-one interactions (free version) or with a small group of up to ten individuals on a Skype premium

plan (paid version). It is available in most countries and is able to support 28 different languages (Tian & Wang, 2010).

- Target culture: This term is used to describe the culture of the group who speaks the target language.
- Target language: The target language is the language the learner is focused on learning (Brown, Solovieva, & Eggett, 2011).

Zone of Proximal Development (ZPD): Vygotsky (1978) considered the different degrees of understanding children have and the processes they go through when learning. He considered tests to measure a child's actual developmental level. He then focused on the learning that occurs beyond this conceptual point in what he coined "the ZPD. It is the distance between the actual developmental 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. 1579). Vygotsky continued to explain that the ZPD relates to skills and knowledge that are still in the process of developing and maturing. Ohta (2001) suggested that the ZPD, although originally used to discuss children, was also a suitable concept for discussing adult second language learning with the main difference being that adults are able to also self-assess their skills. In this study, the concept of the ZPD as described by Vygotsky is adapted to assist in educational planning for adult second language learning (as suggested by Ohta, 2001). With the pre-tests being used to represent what Vygotsky discussed as testing that demonstrates learners' actual developmental level. The facilitation techniques were designed to provide opportunities for joint problem solving with a more capable peer (native speaker) within the participants' ZPD, that is the knowledge and skills that are developing.

1.5 Structure of the dissertation

Following Chapter 1, Chapter 2 provides an overview of current research in language development. The language learning theories of relevance to the study are discussed, these being: schema and script theory; Anderson's (1995) three phase model of comprehension; Alderson's (1994) linguistic threshold hypothesis; and cognitive load theory. The concept of learning spaces is related to the Council of Europe's (2001) concept of domains. Within the classroom learning space, teachers can face the issue of learner motivation influencing learning progress. How the use

of authentic texts has the potential to improve learner motivation is considered along with other various problems that SL learners face. Following the discussion of language learning, theories relating specifically to listening comprehension development are presented. The discussion begins by expanding the definition of listening comprehension and considering in more detail the processes involved in understanding oral input. The literature relating to listening comprehension and strategy use is reviewed. Teaching methodologies, such as task based learning, for assisting the development of listening comprehension are outlined. The need for teachers to plan learning within the learners' zone of proximal development and how this can be done in relation to listening comprehension is then demonstrated. The important process of assessment and testing listening comprehension is overviewed. The last section of the chapter examines the use of CMC for developing listening comprehension. Key concepts such as motivation and strategy use are revisited with a focus specifically on using CMC. The idea of utilising various learning spaces for language development and that these spaces can be ordered on a continuum ranging learning experiences from furthest to closest similarity to being in the target country is then conceptualized, outlined and grounded in current theory on the continuum of language learning spaces. Learning spaces that are created using online tools such as Second Life and Skype are examined relating to their use for SL skills development. The literature identifies the need for further research in the area of using these online tools specifically for the development of listening comprehension skills. Finally, the framework for the selection and use of information communication technologies (ICTs) for facilitating SL learning that was created to assist in the selection of the online tools in the study is provided and discussed.

Chapter 3 describes the methodology used in the study beginning with outlining the research design and approach. The development and structure of both the Second Life and Skype facilitation techniques are explained. As the study contained participants from three different countries working as virtual teams, it was important to consider ethical issues that may present in relation to fairness and cross cultural sensitivities. The methods used for collecting data are then overviewed, these being: pre-tests and post-tests; reflections; and in-depth interviews. Following the methods of data collection, is the explanation of the methods for data analysis and the process of triangulation used to analyse the results.

The results of all data collection processes are presented in Chapter 4. The

results for the qualitative and quantitative data analysis are initially presented group by group. The results for the pre-tests, post-tests, and in-depth interviews (including reflections if relevant) for each group are triangulated to provide a coherent picture of how each group progressed and developed their listening comprehension as a result of participating in the relevant facilitation technique. Results relating to the ESL learners and the CSL learners are compared and contrasted for each facilitation technique. Results regarding the use of the Second Life facilitation technique are collated and the results regarding the use of the Skype facilitation technique are collated for the purpose of comparing and contrasting the results from the facilitation techniques. The comparisons were made between the groups to provide a description of the effectiveness of each technique and the affordances of each online tool.

Chapter 5 discusses the results in relation to the conceptual framework outlined in the literature review. The results are discussed relating to four main themes: effectiveness of utilising Second life and Skype for listening comprehension development; the affordances of Second Life and Skype; the continuum of language learning spaces; and facilitating the development of listening comprehension using the Second Life facilitation technique and the Skype facilitation technique. In this chapter, the individual tasks are considered for the suitability of the online tools matched with the aim of the tasks.

In Chapter 6, major conclusions are drawn from the study relating to: the perceived effectiveness of each facilitation technique; the demonstrated effectiveness of each facilitation technique (as determined by the pre-test and post-test comparisons); the affordances of Second Life and Skype for developing listening comprehension; and the conceptual continuum of language learning spaces. Then, implications are made for the teachers and the learners of SLs based on the key findings of the study. The chapter concludes by presenting recommendations for further research relating to the use of online tools for developing listening comprehension.

Chapter 2

Literature Review

2.1 Introduction

This study focuses on the development of listening skills. It considers how learners develop listening comprehension in a SL and how different learning methodologies, online tools and learning spaces influence the process of development. It aims at developing effective methods for facilitating listening comprehension and access to authentic materials and audiences for learners and at describing the affordances of different online tools for facilitating the development of listening comprehension and communication with members of the target culture. It investigates learners' experiences and strategy use in the learning spaces created by the online tools.

The chapter begins by outlining language learning theories. Environments or 'domains' where language is used are then discussed. The influences on learners' motivation for learning a SL are reviewed. The process of listening comprehension, its development and literature pertaining to the types of tasks recommended for learners to develop their listening skills and strategies will be outlined. Facilitating listening comprehension in learners' ZPD will be considered in relation to planning and assessing processes using developmental standards.

An overview of various recent research studies that focused on listening development and/or CALL is provided demonstrating the various types of investigations undertaken in this area, the types of methods used and typical participant numbers. Literature relating to motivation, the use of authentic texts, strategy use and team formation using CMC for facilitating SL learning is also considered. The concept of listening comprehension development in relation to a continuum of language learning spaces is presented focusing in particular on virtual worlds as learning spaces for developing listening comprehension and the literature regarding SL learning using Second Life and Skype. A framework for the selection of ICTs for developing listening is then presented. Finally, potential barriers to using ICTs in learning are outlined.

2.2 Language Development

2.2.1 Theories of Language Development

2.2.1.1 Schema and script theory

This study is based on the pragmatic view of language comprehension that was developed out of conversational and discourse analysis and speech act theory. These theories attempt to explain the interaction that takes place between the participants during a conversation. When a conversation begins, top-down processing is used with a general focus on meaning using the listener's background knowledge to assist in orientating the listener to the purpose of the conversation (Helgesen, 2003; Nunan, 2002). It is assumed that all participants have an aim that they want to achieve from the interaction. Each sentence is used to continue the conversation and is related to it. The possible responses and interactions are predicted by the participants when creating the next response. Schema and script theory can be used to explain how the learners store and organise their knowledge of the world that they draw on when attempting to comprehend an utterance (Hedge, 2002).

Everything a person knows about a circumstance (e.g., the usual people involved, what usually takes place, for what purpose and how it usually happens) is stored in their memory as a 'script' or 'schema'. Schema holds information about the typical behaviour and roles expected of people in particular situations. People's schemata allow them to understand the many utterances they encounter during a day. This information is used to guide a people's behaviour enabling them to behave appropriately as determined by the cultural norms of the situation (Nishida, 1999). An example of a schema would be the information one stores for what usually takes place at a restaurant. At a restaurant, a typical script usually occurs between the wait staff and the customers. The waiter greets the diners and asks them what they want to order. If during the ordering the waiter asked the customers if they want to come shopping to purchase bikes, then this would not follow a typical schema of what should occur at a restaurant. The customers would become confused and unsure as to how to proceed.

Richards (1987) explained that the process of comprehension during conversation requires participants to: (a) identify the type of interaction taking place; (b) retrieve the appropriate schemata or scripts related to the interaction and the domain where the interaction is taking place; (c) identify the goal of the speaker; (d) establish the propositional meaning of the phrase or sentence; (e) give an

illocutionary meaning to the interaction; and (f) establish comprehension in the context and take the appropriate action. The participants of the interaction then remember the information attained during the interaction as propositional meanings, that is, general ideas and processes as opposed to the exact sentences that were initially heard. Grice (cited in Richards, 1987) pointed out that the participant's knowledge and understanding of the purpose of a conversation aids comprehension. Grice believed that there are four maxims that guide cooperative conversations which form a cooperative principle. His maxims stated that utterances in a conversation need to be: (a) to the point and contain information that is required (maxim of quantity); (b) honest to be considered useful and cooperative (maxim of quality); (c) related to the topic without vagueness (maxim of relation); and (d) the required length to portray the message in a well structured manner without containing redundant information (maxim of manner).

Nishida (1999) stated that schema theory assumes that schemes or scripts are developed and reinforced by individuals participating in similar circumstances and receiving similar information regarding acceptable and unacceptable behaviours. The concept of individuals generally using both top-down and bottom-up processes when comprehending information that is spoken or written is reinforced by Nishida. However, she used different terminology calling top-down processes 'schema driven' processes and bottom-up processes are named 'data-driven' processes. She asserted that learners of the target language who have not developed their personal schemas relating to the target culture will most probably resort to data-driven processes when trying to comprehend the target language and the situation. These processes need focus and effort for learners to utilize them while attempting to understand interactions or text. Problems associated with listening comprehension may be a result of difficulties and a lack of skills with aspects of top-down or bottom-up processing (Goh, 2000).

Nishida (1999) also reviewed the literature on schema theory and identified eight main types of schemata relating to day to day life: fact-and-concept schemas; person schemas; self schemas; role schemas; context schemas; procedure schemas; strategy schemas; and emotion schemas. She explains fact-and-concept schemas as relating to information about a concept, place, object and so forth that contain the facts about that concept or thing, for example, a car typically has four wheels. Person schemas relate to the information one gathers about people and their personality

types, for example, personality descriptors and their characteristics such as hard-working (on task, concentrates, focuses, completes work to schedule). Self schemas relate to one's own personality traits and self-concept. They contain information developed over time that builds a person's identity. Role schemas relate to the type of behaviours that the person and/society deem suitable and appropriate for a circumstance. These expectations can be linked to the person's social position, race, cultural background and/or gender. Context schemas relate a person's behaviour to a setting. These schemas store the behaviours that are expected and acceptable in various settings. Procedure schemas contain the order of activities that are suitable for different circumstances. Procedural schemas derived from experience focus on how to ascertain a desired response in a setting. Strategy schemas relate to reasoning and patterns for solving problems. Emotional schemas relate to the feelings people have about situations and experiences in their lives. These schemas are utilized in combination with other schemas.

Chang (2009) studied the cognitive processes that occur within people while they attempt to adjust to a new culture. He studied 22 expatriate workers from various fields who had worked abroad. Findings suggested that in developing an awareness of the schema of a different culture, cognitive tension and internal dialogue relating to one's experiences connecting with the target culture played a large part of the process of developing an understanding of one's own and the target culture. Interacting with others from the target culture highlighted similarities and differences between the cultures. A strategy used by the participant learners of the new culture, which was highlighted in Chang's study, was that they interacted with the members of the target culture by developing relationships and friendships with them. By interacting with and watching other relevant members of the target culture, the participants in Chang's study were able to learn about the culture and adjust to the new culture with less stress.

SL learners who do not have a grasp of what Nishida (1999) called the primary social interaction (PSI) schemas of the target culture will potentially begin their experience and interaction with native speakers of the target language and culture feeling unsure and perhaps anxious. Intercultural communication was perceived by Nishida as being influenced by the amount of PSI schemas a person has that are similar to those of the target culture. Richards (1987) warned that schemata that are particular to a culture can create difficulties for SL learners who may not

have knowledge of what should typically take place in a certain circumstance, especially if what is expected is quite different from their own culture. An example of such differences is that of address between Americans and Chinese. Chen (2010) explained that in the Chinese address system certain rules of proper address are followed. These are based on factors such as the individual's age and whether or not they are related. The American English address system is quite different in that age and the person's generation can influence address, although dropping the honorific title and using only first names to address colleagues and friends is quite common. Chen also pointed out the difficulty when an equivalent term of address is not used in both cultures, for example, the use of titles for teachers. Following Chinese tradition the title 'Teacher' is considered to be appropriate whereas following American tradition the title 'Mr/Mrs/Miss' or even using only the teacher's first name can be acceptable. A person from either culture could potentially find the other culture's form of address odd or even rude.

Suthers (2003) asserted that SL learners who have developed the content schemes to a particular situation will be able to access the main content during interaction allowing them to concentrate on new content or aspects requiring further exploration. This situation is viewed as being more beneficial for the learning processes. Scripts and script theory can be used to guide teachers' planning, course work and assessment by assisting in the structure of exposure to language and cultural aspects of the target culture. Fischer, Kollar, Mandl, and Haake (2007) explored the use of collaboration scripts (teacher written) for groups to assist with learning. The scripts are used to organise collaborative tasks, order them and assist in sharing responsibilities among group members by allocating tasks. The collaborative tasks scaffold the learners' interaction providing them with support and guidance. Chang (2009) promoted facilitating learners' development of schema and practising participating in various scenarios that activate schema adjustment to the new culture. Teachers are recommended to use role-playing and training for participation for various scenarios. These activities are considered to be beneficial in assisting learners to adapt to the target culture before entering the target culture/country.

2.2.1.2 Anderson's three phase model of comprehension

Anderson's (1995) three-phase model is not in conflict with the concept of bottom-up and top-down processing. Anderson's framework is grounded in a

cognitive perspective of language learning. The three phases are: perceptual processing; parsing; and utilisation. Initially in the perceptual processing phase, the listener uses bottom up processing skills such as identifying phonemes. During the parsing phase, the listener processes the words heard and creates a mental concept of the general meaning of what was said. Finally within the utilisation phase, the mental concept is then considered with reference to the listener's background knowledge of the topic or theme. The memory is retained and processed as schemata or propositions (Anderson & Lynch, 1988; Goh, 2000).

2.2.1.3 Alderson's linguistic threshold hypothesis

Vandergrift (2006) promoted the relevance of Alderson's (1994) Linguistic Threshold Hypothesis (LTH) as well as a Linguistic Independence Hypothesis (LIH) for SL learning. The LTH states that learners need to gain a certain level of ability and knowledge in the SL to be able to comprehend spoken and written texts. If their knowledge of the SL is not sufficient, then their understanding will cease. The current Common European Framework of Reference for languages: Learning, Teaching, Assessment (CEFR) also refers to the LTH to the language benchmarks that learners aim to attain.

For learners wanting to visit a foreign country, it is recommended by the CEFR that they achieve at least Level B1 of the CEFR prior to visiting the country. Level B is considered to represent the LTH, that is, if learners achieve this level they should be able to negotiate their way around the target location and sustain conversation with native speakers while being able to express what they desire in a variety of contexts. These individuals are also able to deal with issues that may arise and need a solution, for example, changing travel arrangements due to sickness or informing a sales assistant that a smaller size of clothing is required. Level B1 makes reference to listening comprehension focusing on skills such as: understanding the main point in conversation on day-to-day topics with the allowance of being able to ask for repetition if required; understanding words expressing attitudes towards topics and feelings such as happiness; comprehending the main point presented on familiar themes when listening to talks or watching the television; understanding simple spoken instructions regarding the operation of equipment familiar to the individual; communicating with the waiter in a restaurant; discussing family life and social events with others.

2.2.1.4 Cognitive load theory

Cognitive load theory as discussed by Sweller (2005) examines the amount of mental activity a learner is undertaking at a point in time in comparison with the amount of working memory available to a learner. The mental activity is considered to be the learner's cognitive load. Three types of cognitive load are addressed, these being: 1) the amount of mental activity required due to the nature of the activity (intrinsic cognitive load); 2) the amount of mental activity required to comprehend and process the pedagogical requirements of the task as determined by the educator (extraneous cognitive load) - it is not recommended for instructors to design tasks which require the learner to use a large amount of working memory as this will interrupt and hinder the learning process; and 3) the amount of mental activity which occurs as a result of schema construction and automation in the learning process (germane cognitive load). The process of schema construction and automation in the learning process is desirable for facilitating learning and the development of skills and knowledge (Baddeley, 2000; Paas, Tuovinen, Tabbers, & Van Gerven, 2003; Sweller, 2005). Germane cognitive load resembles the process discussed by Vygotsky (1978), which occurs when learners are learning within their ZPD (see Section 2.3.4 for a discussion on the ZPD).

Baddeley (2000) stated that learners' memory is best facilitated while using germane cognitive load when they are working with information presented in two modes: as audio and visual. By stimulating different memory systems, working memory may be improved. Virtual reality as well as video-conferencing allow for audio and visual modes of communication although virtual reality can also offer a life-like environment (Antonacci & Modares, 2008; Jin & Erben, 2007). Grgurović and Hegelheimer (2007) promoted the use of two modes, audio and visual, for assisting learners' listening comprehension development. The use of both modes is considered advantageous and able to assist in improving learners' retention and learning potential.

2.2.1.5 Language learning spaces

The Council of Europe's Language Policy Division, through their work and publications relating to the CEFR, promoted the communicative importance of language being used for real purposes. Language is viewed as "a social instrument,

or a way of enabling people to interact with one another” (Council of Europe, 2002, p. 2). The Council of Europe (2001) posited that all language learning takes place within a domain. A domain is considered to be the context where language learning occurs. For the purpose of this study, the term ‘learning space’ is used to refer to the spaces in which a learner participates in learning activities. Various learning spaces would fall under the broader categories referred to here as domains. Four broad domain categories have been presented: the personal; educational; occupational; and public.

The personal domain consists of interactions that relate to a particular person with his/her family and socially with his/her friends. The educational domain consists of interactions within schools or any other educational institution in which organised learning occurs for the purpose of achieving specific educational aims such as acquiring particular knowledge or skills set. The occupational domain consists of interactions that take place and relate to a person’s profession. The public domain consists of interactions that occur in the public arena and are of a public nature such as cultural and leisure time activities. Interactions with government and businesses are included here. Some circumstances may pertain to more than one domain at the same time.

Script theory (Hedge, 2002) could be used to understand the type of texts that typically occur within learning spaces in these domains. It relates the environment to the learner. Barron (2004) discussed the concept of learning ecology. The learning ecology is a group of various contexts that the learner can access. It includes physical and virtual spaces. Within these contexts are various resources and different relationships can be formed. Chan, Hue, Chou, and Tzeng (2001) proposed that technology creates a change to the actual physical space where learning takes place, a change to the content and aims of learning, and the emergence of networked societies that are based on shared interests and purposes.

Virtual learning spaces can contain real-life spaces that resemble those that exist within the domains discussed in the CEFR. Hernández-Serrano, González-Sánchez, and Muñoz-Rodríguez (2009) explained virtual spaces as being able to create a sense of place. They are viewed as “contexts or environments of coexistence, interaction, as well as a guide for personality development and construction of identities; spaces where the act of learning is part and product of the context and the social activity” (Hernández-Serrano, González-Sánchez, & Muñoz-Rodríguez,

2009, p. 2411). Benson (2006) also stated that learners should be engaging in language learning activities in many different contexts. Gan, Humphreys, and Hamp-Lyons (2004) reinforced that learning which occurs outside the classroom is of importance and can lead to improvement in the SL.

2.2.2 Motivation and Authentic Texts

Jones (2008) insisted that teachers need to take a critical approach in the selection of learning tasks to develop listening skills. Ur (2007) suggested that teachers should develop an approach that incorporates linguistic and non-linguistic purposes such as adding authentic cultural learning to a grammar lesson. An example of incorporating linguistic and non-linguistic purposes could be: learners participating in focused task work on what the traditional cultural routines are for birthday parties while also focusing on linguistic goals, such as, building vocabulary related to birthdays and developing sentence structure using the birthday theme vocabulary for content. The teacher is then presenting an opportunity for learners to improve their SL skills by basing an activity on linguistic goals that has a non-linguistic purpose. Jones (2008) pointed out that the purposes and expectations of activities should be made clear to learners before participating in the activities. Activities that represent real-life cultural circumstances should include resources that are a reflection of real world natural speech and not contrived speech that would not be heard in a real setting. Ur (2007) pointed out that in real life situations listeners have reasons for listening that are not based on linguistic goals. When SL learners have exposure to authentic learning resources while engaging in dynamic activities, they are extended to make more effort to communicate. The extra effort is self-initiated due to their interest and assists in increasing motivation (Warschauer & Kern, 2005). Helgesen (2003) and Lam (2002) concurred that learners are not motivated to learn language that is not in use. The use of authentic materials makes learning more relevant to the learner, creating interest in learning, and prepares the learner for real world communication. The authentic resources and tasks can be either simulated or real. Field (2002) suggested that authentic materials can be used from the beginning levels with a simplified activity.

Learners' motivation for learning a SL may influence the aims of a language program and the type of activities being offered. For example, Hart (2002) explained that the desire of Japanese ESL learners is to be able to communicate effectively

using English. Their ability to speak English well influences their employment prospects. They need to be able to understand authentic texts. The motivation of learners studying a minority language may be different than that of learners studying English for work purposes, nevertheless whatever the initial motivation for learning is, the use of authentic texts in language learning has been acknowledged as being of great benefit to the learner (Helgesen, 2003). Chen and Brown (2011) commented that their students had felt that English language courses did not adequately prepare them to communicate in real life situations. Students believed that the textbook topics did not cover the wide range of purposes for using English that they would encounter in the real world.

2.2.3 Learning Problems

Krashen (1995) identified high motivation, having a positive self-image and being confident with low anxiety as characteristics that can assist learners to succeed in learning a SL. Anxiety, low levels of motivation and a negative self-image are considered to be inhibiting learner characteristics. Goh (2000) surveyed the literature and found that speech rate, sentence structure, lexis, sounds of the language, sufficient background knowledge of the topic, being unmotivated and not having enough exposure to the SL can all contribute to problems which language learners may face while trying to learn a SL. Rubin (1994) conducted a literature review on listening comprehension and found that speech rate may influence learners' ability to comprehend especially in the beginner levels. The evidence across different studies appears to be contradictory which Rubin suggested may be the result of variables such as: the type of listening content provided; the learners' word knowledge relating to the topic; how decisions regarding the measuring of proficiency are made; and the benchmarks used to measure proficiency. Carver (1973) posited that learners are individual in that their abilities vary with regards to listening comprehension and speech rate. Xiao-yun and Gui-rong (2011) considered the inhibiting effect that anxiety can have on SL learners' listening abilities. They also identified common difficulties for SL learners as being: having limited vocabulary; grammar problems; difficulties with pronunciation; and not having a sound understanding of the target culture and typical and acceptable behaviours of that culture.

2.3 Listening Comprehension

2.3.1 Definition of Listening Comprehension

Lems, Miller, and Soro (2010) related the concept of listening comprehension to Brown's (1950) discussion of auding and define it as "an interaction between active listeners and oral texts as listeners rapidly process oral texts through their mental systems" (Brown, 1950, cited in Lems, Miller, & Soro, 2010, p. 49). They continued to explain that the mental systems "include all the previously presented listening skills, in addition to the listener's background knowledge, interpretation of the setting, and cultural and emotional filters" (Brown, 1950, cited in Lems, Miller, & Soro, 2010, p. 49). This definition of listening comprehension reflects the recognised interplay between the semantic (bottom-up) and pragmatic (top-down) processes taking place when a listener attempts to comprehend the target language (Sarandi, 2010). Flood (2003) and Rost (2002) included a focus on interaction in their discussion on listening comprehension. The process of listening is considered to also be interactive as interlocutors negotiate meaning amongst one another throughout their conversation. For the purpose of this study, Lems, Miller and Soro's definition will be adopted with inclusion of Flood's and Rost's notion of interaction in conversation through the negotiation of meaning.

2.3.2 Strategy Use

Listeners may use a range of strategies to assist them in comprehending oral information. O'Malley and Chamot (1990) organised these strategies into three main categories: cognitive; meta-cognitive; and affective/social. Cognitive strategies relate to the top-down and bottom-up strategies used when learners attempt to listen and comprehend. They involve how the learner processes the information. Meta-cognitive strategies are the higher order strategies that include planning, monitoring and evaluating one's listening development and performance. Social/affective strategies relate to feelings and perspectives that influence understanding and learning. For example, anxiety can influence how well a learner performs while listening.

As discussed in Section 2.2.3, Xiao-yun and Gui-rong (2011) stressed the negative effect that anxiety can have on learners' listening performance as well as other issues with intonation, pronunciation, grammar, vocabulary, and a lack of cultural knowledge. They proposed seven main strategies to overcome most

obstacles learners face in developing their listening abilities, these being: building confidence and enthusiasm through engaging learners' interest; having learners verbally repeat listening texts to assist learners' intonation and pronunciation which will help develop their listening; focusing on communicative activities that are meaningful and occur within an appropriate context; extending learners' vocabulary by presenting new words in different contexts using a variety of word building activities; and carefully selecting interesting and meaningful texts to read to help extend learners' vocabulary and understanding of words. They promoted that using these strategies will assist learners when listening as they will be able to: identify more words and their meanings; build their knowledge of grammar in context to reduce the chance of misunderstanding content when listening during conversations; and build their knowledge and understanding of the target culture by exposing them regularly to aspects of its history, customs, politics, arts, and other cultural aspects.

Ellis (2005) identified two main types of interaction promoted by psycholinguistic interactionists that require different strategic processes. The first type of interaction uses strategies when interacting to negotiate meaning. For example, when SL learners are communicating in their SL and begin to lose meaning, they are able to use repair strategies to re-establish meaning, such as checking for understanding. The second type of interaction and accompanying strategies are those used when the learners are focusing on using the correct grammatical forms of a language. The learners are aware of their own development and learning process and are seeking corrective feedback if errors are made. Nunan (2004) supported the need for interaction in strategy development.

Listening is considered by Vandergrift (2006) as requiring more demands on the learner than reading although they both rely on receptive skills due to listeners not being able to hear a spoken text multiple times. They need to process the text instantaneously while new information is being presented. Listeners need to create mental representations of the listening text while potentially dealing with a variety of accents, other sounds and false starts. Schroeders, Wilhelm, and Bucholtz (2010) asserted that these added complexities can make the processing of spoken text more laborious. SL learners may also need to consider cultural knowledge and cues that may be quite different from their first language (L1) and/or culture.

Vandergrift (2006) explained that SL learners should be provided with ample listening activities in a non-threatening environment so that they are able to develop

their use of compensatory strategies and comprehension skills. Developing meta-cognitive knowledge about their listening skills may assist SL learners in transferring their listening skills used with their L1 to SL listening situations. Dupuy (1999) presented results of a study on the effects of narrow listening with positive acclamations for the technique from the researcher and learner participants. Conversations between native speakers presented in an unscripted manner are viewed by Dupuy as being too hard for the novice and intermediate listener to understand. In narrow listening, the SL learners select from an assortment of short recorded listening texts on a variety of topics, for example, speakers discussing the selected topic: sailing. The learners can listen numerous times and proceed to new topics when they are ready. The listening skill is not tested during these activities so learners do not need to feel stressed about being questioned.

Vogely (1995) studied the perceived strategy use of learners of Spanish as a second language while they participated in three listening comprehension activities and generalised that the linguistic proficiency of the language learners appears to have an influence on the type and amount of strategies used. Graham, Santos, and Vanderplank (2008) studied how listening strategy use developed over time with lower-intermediate learners of French as a SL. They found that the use of strategies depends greatly on the individual. Although the two learners involved demonstrated variations in their learning styles and strategy use prior to beginning the study, their use of strategies did not alter much over six months of their participation. Vanderplank asserted that learners need to learn how to effectively use various strategies, not simply the various strategies available for use. Vanderplank explained that learners who use what are commonly referred to as good listening strategies may use them ineffectively, compromising their listening comprehension.

In a study on how learners' goals for language learning affected their choice and use of strategies, Huang and Andrews (2010) discovered that learners' purposes for learning a SL as well as the context in which the learning takes place has an influence on the strategies they develop, select and use. The cultural background and patterns of interaction of the learners were also found to be important. Vandergrift (2006) discovered that learners' L1 listening ability as well as their SL proficiency influenced their ability to comprehend listening texts. He posited that listening in a SL is not necessarily a new skill that language learners must acquire but that they transfer this ability to the SL situation. He did not offer a framework for how the

transfer of grammar skills may occur.

Dörnyei (2005) stated that the level of flexibility and appropriate selection of strategies have a great influence on how strategies can be effectively used by language learners. Macaro (2001) asserted that it is the active selection and use of strategies that assists learners in becoming successful language learners. Learners' motivation and positive response to strategy instruction can influence their uptake of new skills (Yeldham, 2009). Graham, Santos, and Vanderplank (2011) stated that there is a need for research into the relationship between how learners develop language learning strategies and their listening proficiency development. In their study that investigated learners' strategy development and use as well as the influence of teaching styles on their language development, they found that, without direct strategy instruction, not many learners made any significant improvement in their listening ability. They asserted that the lack of influence that the teachers' approach to listening had on strategy use by the learners could be a result of the teaching perspective that listening development should be facilitated as part of an exercise as opposed to teaching listening as a skill for use. Interestingly, in a study on the influence of different types of strategy instruction (bottom-up and top-down), Yeldham (2009) found that the learners began to develop a variety of strategies even though they had not been directly focused on during strategy instruction. These findings indicate a need for further research into whether strategy development is necessary or whether strategy development can also promote self-directed strategy development in learners.

Chen (2009) investigated the relationship between strategy instruction and use and listening development across three proficiency levels: beginners, intermediate; and advanced. It was found that, from half way through the treatment period, the strategies of planning, monitoring and evaluation were used by learners from each of the proficiency levels. The beginner level learners mostly used the metacognitive strategy of planning. The intermediate level learners mainly used the strategy of selective and directed attention. During the entire treatment period, monitoring and evaluation strategies were mostly used by learners in the high ability group which became mainly metacognitive strategies towards the completion of the treatment period. Chen generalized that high ability language listeners used strategies such as visualization, inferring and summarizing. These strategies are considered to be top-down strategies. While lower ability learners tended to use translation and

other bottom up strategies.

2.3.3 Task-based Learning

Ellis (2003) viewed tasks as meaning focused activities that incorporate target language use. Ellis (2000) identified the potential that utilising task-based language learning has for improving learners' communicative competence. In task-based language learning, the learners are required to solve problems and work together to achieve a desired goal. The communication requires negotiations and meaning making and needs to be related to real-life situations. Tasks are communicative activities related to the real world which learners undertake to achieve specified outcomes (Bygate, Skehan, & Swain, 2001; Skenan, 1998).

Kessler (2010) explained that the environment is an important consideration when constructing language tasks especially when practising speaking. Learners can experience more anxiety when using skills such as speaking and listening that do not allow the speakers or listeners to review the input and/or edit what they have said. MacIntyre (2007) noted the negative effect that anxiety can have on learners' ability to communicate as well as their desire to do so. Vandergrift (2006) stressed the need for a non-threatening environment where learners are less likely to feel stressed and be able to practise their listening comprehension skills and develop their strategy use.

Doughty and Long (2003) posited that task-based language teaching, which focuses on communicative activities that prepare learners for real life situations, is suitable for use within computer simulated versions of target environments. Jauregi, Canto, Graaff, Koenraad, and Moonen (2011) stated that most definitions of task-based language learning include the concepts of orientating tasks toward goals, meaning and acquisition. In their study on verbal interaction in Second Life, tasks were used that focused on the development of intercultural awareness. They asserted that virtual methods were suitable for connecting learners separated by distance and assisting them to develop their communicative competence. Jauregi et al. (2011) outlined a set of four design principles for creating tasks to assist the development of communicative competence. They also highlighted Byram's (1997) five design principles to assist the development of intercultural competence. The four design principals regarding communicative competence are: 1) having a communicative aim that, through a negotiation of meaning, results in a planned communicative achievement - Gass (2003) supported the importance of negotiation of meaning

during the learning process; 2) creating meaning which is appropriately related to the context through a process of negotiating - the learning process heavily features interaction; 3) language forms are learnt in association with meaning development, not in isolation; and 4) input provided is relevant, authentic and accessed through various models - this input is then expanded through communicative processes of negotiation (Byram, 1997, cited in Jauregi et al., 2011).

The five main principles for designing tasks to assist the development of intercultural competence are those outlined by Byram (1997, cited in Jauregi et al., 2011): 1) having an open attitude towards other's culture; 2) having an awareness of the social norms of the other culture and one's own before communicating; 3) being able to understand and explain communication in the target language in relation to one's own language and culture; 4) being able to gain new understandings of the target culture through communicating and use the cultural knowledge effectively during interactions; 5) displaying critical analytical skills with reference to political and social issues, perspectives and products. Jauregi et al. promoted the concept that common understandings and misunderstandings regarding the cultural routines of daily life should be the beginning focus for development. They also noted that there is a lack of research in the area of teaching and learning of SLs in virtual environments. They offer a "task design and evaluation grid for intercultural communicative tasks in video-web communication or virtual worlds" (Jauregi et al., 2011, p. 82). The grid is comprised of questions relating to their design principles. It was designed to assist educators in creating meaningful tasks that use CMC tools (See Appendix A).

Aside from intercultural aspects, Deutschmann and Panichi (2009) classified tasks into three categories: 1) tasks that require communication, socializing and focus on cognitive development; 2) tasks that focus on developing the creative and emotional affective learner attributes; and 3) tasks that require physical response and engage the spatial aspects of learning. Virtual worlds are promoted as enabling communication within a context. The virtual learning space can be created to facilitate tasks that require oral communication and allow learners to engage with 3D representations of environments.

2.3.4 Facilitating Listening Comprehension in the Zone of Proximal Development

As outlined in Section 2.2.2, when teachers plan for learning they need to: select materials for learning that are authentic and create activities that resemble real-life situations; use contexts that inspire real-life communication; consider which strategies listeners are using and whether they are using them effectively or not; consider how to teach strategy use or at least make learners aware of strategies to try; provide learners with non-threatening environments to practise their skills; and provide activities that stimulate top-down and bottom-up processes. Another important factor is to ensure that learners are listening to ability level appropriate material and participating in appropriate activities.

Vygotsky (1978) discussed the need for teachers to facilitate appropriate tasks for learners that promote their development by facilitating their thinking and skills work within their ZPD. Although the concept of learning within the ZPD was originally developed in regards to children, Ohta (2001) pointed out that designing learning experiences within learners' ZPD is appropriate for all learners including adult learners of a SL with the main difference being viewed as adults having the ability to self-assess. Ohta (2005) observed the effects of using the ZPD for teaching SLs and in particular how various instructional practices may or may not align activities in the learners' ZPD. The activities that utilised learners' ZPD had been successfully applied in different SL learning areas.

Ohta (2005) also reviewed literature regarding peer and collaborative work for SL learning and found that those who worked with others regardless of whether their partners were at a higher or lower ability level demonstrated improvements in their own ability levels. Ohta discussed Takahashi's (2001, cited in Ohta, 2005) study on explicit and implicit instruction which found that, although learners could self select resources within their ZPD, the groups who worked with a teacher performed better. Ohta then pointed out the relevance of learners working with other people with higher abilities who could be teachers or more able learners. The significance of learners problem solving and working with teachers or more capable peers was promoted by Vygotsky (1978) in his discussion on children problem solving within their ZPD.

The pre-test- teach-post-test paradigm was developed by Budoff (1987). Pre-testing can be used to provide teachers with important information regarding

learners' skills and knowledge - what they can do without the assistance of an expert. Following this, learning experiences with more capable peers can be planned for as a starting point. Dynamic assessment then continues to occur while learners work on tasks with teachers or more capable peers and tasks can be altered according to the learners' ability. In this manner the learning process is designed to facilitate learners as they develop at their own pace. The post-test, as with the pre-test, can only be used to determine what the learner knows independently. Over time the tests can be used to indicate development. The post-test is not related to the learners ZPD but is a useful tool for evaluating lessons and planning for further learning experience. The assessment process and linkages with the ZPD are discussed in Section 2.3.6.2.

2.3.5 Planning for Tasks Using Development Standards

Textbooks that were used at the institutions where this study took place were based on the CEFR framework. The CEFR framework breaks language learning into segments on a developmental scale from absolute beginners to proficient users in multiple contexts. There are six broad levels ranging from A1 to C2, these being: A1; A2; B1; B2; C1; and C2. The A levels focus on developing basic vocabulary, phrases and sentences that enable simple communication. Topics focus on learners being able to discuss themselves and simple everyday occurrences. The B levels expand topics to work, hobbies, travel and family while also introducing literary prose. Learners at Level B1 and B2 are able to interact frequently with native speakers. Their writing extends to letters and reports. The C levels require learners to use their target language fluently being able to discuss complex topics and use various forms of writing such as argument. Professional and academic language is included.

The European Association for Quality Language Services (EAQUALS) formed a special interest project to create 'Can Do' statements that expand the 6 CEFR levels into 11 stages of development. To expand the 6 CEFR levels, 'plus' levels were developed, for example: A1 is expanded and represented as two levels, A1 and A1+. The only level that does not contain a plus level is C2 (EAQUALS, 2008). The plus scales include more detail and separate learners' development into further stages of learning. CEFR standards and the plus scales can be used as developmental benchmarks to guide teachers understanding of the developmental process of language learning and plan for tasks within the learners' ZPD. These benchmarks can also be used to guide the assessment. Appendix B contains the

‘Checklist Continuum of Listening Activities and Related Content/Topics: CEFR Levels A1; A1+; A2; A2+; B1’ which outlines a combination of the benchmarks taken from the EQUALS Bank of Levels (2008) and the Common European Framework of Reference for Languages: learning, teaching, assessment (2001). The key benchmarks for listening were selected across the A1; A1+; A2; A2+; B1 CEFR levels and separated into types of listening activities, such as listening to one person while participating in conversations and listening to a group discussion.

Developing learning activities within learners’ ZPD using the CEFR levels for listening comprehension development can be achieved by pre-testing learners, plotting their development against the levels, and planning their next learning experiences according to what is identified on the levels as the next developmental learning outcome that could be achieved when working with a more capable peer or teacher. For example, a teacher pre-tested Learner A and found that he/she could: understand simple conversations regarding day-to-day activities such as attending at a party or going to the shops; identify when a topic changed in a news program but sometimes stumbled on main points; understood a basic spoken weather report; could respond to requests that would usually be made in a restaurant by a waiter; and comprehend travel announcements. Although Learner A could comprehend questioning regarding whether he/she was hungry, thirsty, well or tired, he/she was unable to identify other feelings in the target language, such as happiness or sadness. Learner A, according to the CEFR standards and EAQUALS plus scales, would be operating in the A2 level but had not mastered all aspects of the A2+ level. The teacher could then refer to the EAQUALS A2+ standards to ascertain the key learning in the next developmental stage. After identifying the next developmental focus for Learner A, the teacher could plan activities designed to build on Learner A’s knowledge and skills and extend him/her with assistance from a more advanced learner, the teacher, and/or well selected authentic resources and activities. For Learner A, the activities could focus on comprehending the use of personal expressions of feelings and attitudes (Level A2 to B1) and extending Learner A’s topic knowledge and ability to comprehend the main point in a listening text, such as the news (Level A2). The focus of the pre-testing, and learning should be on providing SL learners with learning experiences within their ZPD to extend their abilities. The CEFR provides teachers with structured guidance for planning learning tasks according to recognised development levels.

2.3.6 Testing for Listening Comprehension

2.3.6.1 Testing purposes

The theory of what constitutes language ability influences the aims of a program, how the program is taught and how it is assessed. The definition of language ability that educators select helps to define the competencies that language tests will be required to assess. The Council of Europe (2002) stated that language tests in general should aim at assessing the skills of test-takers in a manner that would demonstrate what they could achieve in a non-test circumstance. Another influencing factor on the structure of a test is the purpose of the particular test as related to specific aims and objectives. For planning the development of language comprehension tests, Fulcher and Davidson (2007) discussed what they call effect-driven testing where the purpose of tests helps to guide their creation. They assert that the purpose needs to be considered at the beginning of the design process. Different purposes for language testing may include: informing the teaching process; providing proof that a learner is ready to progress to the next academic year level; and measuring the test-taker's ability as part of the process of acceptance as a citizen of a target country or worker at a desired work location. Establishing the purpose of a test in relation to a model of language ability, that is, exactly what is being assessed by the testing instrument or process assists in the establishment of the test's validity (see Section 2.3.6.3). The model of language ability can also be used to create boundaries or checklists of skills and content that can be used during the test development stage (Council of Europe, 2002). As well as purposes, various perspectives on the role of assessment in language learning influence how language is tested (Allal & Ducrey, 2000). Two main perspectives of assessment and teaching are outlined in Section 2.3.6.2 and discussed in relation to the ZPD.

2.3.6.2 Assessment and the zone of proximal development

Ohta (2005) connected Vygotsky's work on children's development with the development of adults when learning a SL. Ohta believed that the major difference in the processes of teaching and assessing between adults and children was that adults are often able to self-assess their abilities and seek appropriate resources to suit their learning. With Ohta's connection between Vygotsky's work relating to children and adult SL learning in mind, other influential conceptual developments relating to

Vygotsky and the teaching and assessment of children may also provide important insights into the teaching and assessment of adult SL learners and are worthy of consideration. Allal and Ducrey (2000) presented two different views on the relationship between the assessment and teaching of children with reference to Vygotsky's (1978) ZPD, these being: dynamic assessment and interactive formative assessment.

Allal and Duracy (2000) also point out that in both views, dynamic and interactive formative assessment, assessment and learning are seen as linked to one another as a means of informing the teaching cycle and facilitating the development of learners' abilities and knowledge. Table 2.1, which is taken directly from Allan and Duracy, outlines main points of the difference between the two views of assessment in regards to: educational aims; objects of assessment; assessment procedures; and Allan and Duracy's interpretation of their relationship to the ZPD.

Table 2.1
Two Perspectives on the Relationship Between Assessment and Vygotsky's Concept of the ZPD (Allal & Ducrey, 2000, p. 139)

	Perspective 1: Integration of teaching in assessment	Perspective 2: Integration of assessment in teaching
Educational aims	Optimize assessment Diagnosis of learning difficulties & prediction of learning potential Decisions about placement & about the allocation of instructional resources Construction of special programs of cognitive education	Optimize instruction Analysis of teaching-learning processes Decisions about regulation & differentiation of classroom instructions Development of student implication in assessment
Objects of assessment	General cognitive structures Cognitive & metacognitive functions General conative dispositions	Understanding of subject-matter knowledge Mastery of meaningful tasks in context Strategies of self-regulation & engagement in school activities.
Assessment procedures	Test-teach-test paradigm (or variations thereof) Standardization of assessment tasks Highly scripted teaching interventions Quantitative data with good psychometric properties	Interactive regulation of learning-teaching processes Variable tasks according to content and classroom setting Individualized, non-scripted teacher interventions Qualitative observations (minimal instrumentation & record-keeping)
Relationship to the ZPD	Assessment of the ZPD	Assessment in the ZPD

It is important to note that Vygotsky (1978) considered testing to show what the learner can do independently and not an assessment of the ZPD as discussed by Allal and Ducrey (2000). Thus, Perspective 1 relates to what the learner had already acquired and is not an assessment of the ZPD. It does not relate to the learners' ZPD as described by Vygotsky (1978). In this sense, the concept of the ZPD has been altered by Allal and Ducrey (2000). Dynamic assessment is used to demonstrate learners' abilities for the purpose of teaching. It can be viewed as independent of the educational setting. For example, a standardized test can be designed to assess an achievement level utilising the CEFR standards. The standardized test could be taken by learners in various locations and, although it may require specific administration procedures, is not situation specific. Interactive formative assessment occurs during the teaching process within the learners' ZPD. This form of assessment is dependent on the educational setting and situation and occurs in interaction with another person. An example of interactive formative assessment could be if a teacher was helping a learner to practise his or her use of directions and the learner had found the activity to be too easy, the teacher could then add more complex steps or variations to the activity so that the activity would be better aimed within the learner's ZPD. The teacher is assessing the learner's capabilities in the moment and adjusting the content or activity accordingly. This type of assessment relates to learners working with their more capable peers within their ZPD. In this study, the more capable peers are the native speakers of the target language. The facilitation techniques provided an outline for discussion and activity that could be adapted by the native speakers as they continually formatively assessed their partners' ability to comprehend their target language.

Dynamic assessment takes the form of pre-testing, instruction, and post-testing. In this study dynamic assessment is more related to a pre-testing, learning and problem solving with a more capable peer, and then post-testing cycle. Interactive formative assessment is used within the learning activity framework by peers as they take on the role of expert and teacher during peer-to-peer interactions. The expert is guiding and adjusting their language use to the learner's needs. The planning for learning and interactive assessment relate to the learners' ZPD. Dynamic assessment relates to already acquired knowledge.

2.3.6.3 Listening test development and validation

Skadina et al. (2010) highlighted the issues surrounding minority languages and the difficulty with the availability of resources to support teaching, learning and assessment activities. For such languages it is often necessary for the teacher to develop the learning and assessment materials and the Council of Europe (2002) provide guidelines to assist teachers in doing so. Considerations required in listening test development are related to the kinds of listening situations that are the focus of the test, how these situations can be created or mimicked for use in the testing environment and which ability level is being tested. It is also necessary to consider practical issues relating to staffing numbers, site specific use of the test or whether the test is designed for use across multiple locations, and quality control measures. These considerations will influence the type of test format and questions used on the test (Council of Europe, 2002).

Chapelle, Jamieson, and Hegelheimer (2003) discussed the process used to demonstrate validity for an ESL test delivered over the Web. They considered the concept of validation as being one that requires empirical evidence and theory to be utilised to validate the use of the test and how it is interpreted. The feasibility of how a test can be validated is seen as also relying on the availability of the resources: time and money. Decisions need to be made during the process as to the types of evidence needed and the theoretical basis for building the argument for the validity of the test. They also discussed the influence that the purpose of a test has on its production and validation and referred to Shepard's (1993, cited in Chapelle et al., 2003) argument that the purpose of a test should be to direct the shape and form of the validity argument. Questions as to whether the test is to be used in a standardized manner or whether it is context-specific will influence the requirements of proving validity. Whether a test is considered high-stakes or low-stakes or somewhere on the continuum is influenced by its purpose, that is: the types of inferences that will be drawn from the assessment relating to what the test taker can or can potentially do; how the results will be used; and the impact the results will have on the test takers and the receivers of the information collected in the testing process. These aspects are used to create the validation argument. Chapelle et al. asserted that a high-stakes test requires a more vigorous validation process whereas the development of a low-stakes test may not require as vigorous process due to the intended purposes of the

test and the availability of resources for educators to partake in a vigorous validation process.

Chapelle et al. (2003) organized the discussion regarding design and validation implications of testing purposes for Web-based ESL tests under the following headings: purpose (inference, use, and impact); validity considerations; design decisions; and validation decisions each pertaining to the inference, use and impact. These considerations can be used to assist in building a validity argument by demonstrating positive and negative aspects of key criteria relating to the usefulness of tests as defined by Bachman and Palmer (1996, as cited in Chapelle et al., 2003), these being: reliability (results of equivalent tests will be consistent with equivalent test-takers); construct validity (test measures what it is designed to measure); authenticity (degree with which the test is similar to a natural language circumstance and natural language usage); interactiveness (degree and type of test taker contribution during testing); impact (how the test affects those who take it and other social and educational decisions and circumstances as a result of testing and test results); and practicality (considerations regarding available resourcing, test creation and implementation).

Kim and Craig (2012) used Chapelle et al.'s (2003) implications of tests (set out as a table) as part of the validation of their speaking test that utilised video-conferencing. They collected arguments for validity for their low-stakes speaking test by using theory and operational decisions. Chapelle et al. provided valuable examples of how theoretical rationales can be used to guide the test development process. For example, theories relating to grammatical development and vocabulary can be used to assist the selection of test items. The Language Policy Division of the Council of Europe published documents specifically relating to test development and validity and reliability of tests: the CEFR (2002) and the manual 'Relating Language Examinations to the CEFR' (2009). The first document contains explicit information regarding the theoretical approach to language learning taken by the Council, aspects of the test development process including: creating test specifications; creating the test (pretesting/trialling, construction of the test, important aspects of item-writing); and evaluating the test. The second document is a manual which can be used to guide the validation process. It can be used to assist test developers to: link tests to CEFR; familiarize themselves with the CEFR standards; create test specifications; develop standardized training for test administrators; create standard setting procedures; and

validate tests. It includes valuable resources such as the B1: CEFR Content Analysis Grid for Listening and Reading. The manual and resources provide educators with thorough step-by-step methods for creating reliable and valid tests.

Buck (2001) posited that, when developing listening tests, the default listening ability should be considered as being able to comprehend extended and realistically spoken texts and answer questions relating to content or inferences based on the content. The focus is placed on the type of texts one can comprehend which is determined by the learners' differing ability levels. Buck's default ability level is the equivalent of the CEFR levels B2 and C. Vandergrift (2006) asserted that questions involving inferences appear to be much more difficult to answer based on listening comprehension than questions which ask for a response based on a literal understanding of the text. Vandergrift (2006) pointed out that listening tests, which incorporate questions that need to be read, are testing the learners' ability to listen as well as read. Vandergrift stated that listening tests should not include any form of reading in the question or the answer. He explained that listening tests assessing learners' SL and L1 should be able to be compared with one another in regards to the length of time taken to complete the test. Chapelle et al. (2003) promoted being able to provide learners with feedback on their development in their own time as one of the main advantages of using the World Wide Web for assessment purposes.

Yanagawa and Green (2008) investigated the effect of using three different multiple-choice listening test formats on the test-takers' performance and found that allowing learners to view questions prior to the listening test had a positive impact on their results. They implied that test takers may use the question as part of a lexical test taking strategy. Previewing test questions may provide learners with schemata to structure and guide their listening. Council of Europe (2002) stated that when developing listening tests, the choice of test structure and question type depends on the purpose of the test and the type of test situation. Hughes (2003) warned against the use of multiple-choice listening tests asserting that they do not demonstrate natural listening in context in realistic conditions. The Council of Europe placed more realistic expectations on testing acknowledging that testing that mimics natural listening in real conditions cannot always be achieved per se and variants can be acceptable depending on the situation. They provided different types of test examples including multiple-choice that is viewed as being relevant depending on the testing purpose and circumstances. In circumstances where multiple-choice is used then the

listening text can be designed to reflect a real-life conversation.

2.4 Computer-mediated Communication

2.4.1 Importance of Researching the Use of CMC for Language Learning

Perez (2003) suggested that there is a need for empirical research in the area of CMC relating to teaching methodologies and techniques. Kern (2006) stated that the focus areas for research in CALL are on the use of the computer as a medium and as a tool. Thorne, Black, and Sykes (2009) asserted that research evidence needs to identify the specific benefits of CMC for language learning as opposed to reiterating the general benefit of using CMC. The affordances of online tools such as Second Life and Skype for language learning need to be formally investigated. Investigations that focus on the affordances of online tools can potentially lead to new teaching methodologies utilising these tools (Chen & Brown, 2011; Kessler, 2010). Belz (2004) asserted that investigation of the affordances of telecollaboration and CMC needed to also have a focus on learners of minority languages.

Warschauer and Grimes (2007) highlighted the need to investigate how using new technologies can assist in motivating learners. There is limited research that links task-based learning and the use of CMC to access an authentic audience with learner motivation (Chen & Brown, 2011). As CALL environments differ in their affordances, Chapelle (2001) suggested that online environments need further investigation to ascertain the influence of these differences on learners with varying learning styles and preferences. Educators need to invest time and resources into developing learners' intercultural communicative abilities in their target language by creating and using life-like environments such as those found in virtual worlds. Through investigating these learning experiences, the potential learning affordances may be discovered (Bueno Alastuey, 2011; Jauregi, Canto, Graaff, Koenraad, & Moonen, 2011).

Eroz-Tuga and Sadler (2009) highlighted that there is limited research in the applicability of online tools such as Skype for their use in teaching. Deutschmann, Panichi, and Molka-Danielsen (2009) identified a need for research in the use of online tools that create virtual worlds for language learning. Warburton (2009) also promoted the investigation into the connection between learning and immersion as well as empathy. Hernández-Serrano, González-Sánchez, and Muñoz-Rodríguez, (2009) posited that educators may need to consider new ways of comprehending the

learning process in virtual spaces. Liou (2011) linked virtual learning to real-world learning and discussed the need for investigating the learning potential of using online tools such as Second life to enable ESL learners to learn in context. Henderson, Huang, Grant, and Henderson (2009) also identified interactions in the virtual world and in real-life as needing comparison and their relationship requiring investigation. They emphasised the need to focus on the issues of construct validity and instructional design for teaching and researching using virtual worlds. Warburton (2009) expressed that need for educators' skills to be developed to assist them in creating lessons and teaching using virtual worlds. Specifically, research in the use of virtual reality environments for facilitating the development of listening comprehension for communication is currently limited (Jones & Plass, 2002).

2.4.2 Methodological Considerations

Research using CMC technologies requires a certain level of hardware, software and Internet access as determined by the project requirements. Depending on the location of the participants, there may also be time zone and academic semester timetable issues that require negotiation and careful planning. It can sometimes lead to reduced possibilities for the participant involvement (Graham et al., 2011). Graham et al. (2011) asserted that investigations which use only quantitative approaches to collect and analyse data on strategy use and development when using CMC lack depth and require the incorporation of qualitative methods to gain depth of understanding and document the processes involved in learners' development. They add that smaller numbers of participants can be an advantage allowing the researcher to focus on individuals' experiences and opinions. Minority language groups not only present the issue of low participant numbers but they also may have the issue of a lack of available resources to assist language learning. Researchers and educators may need to create their own resources (Skadina et al., 2010). Yang (2011) and Barkatsas, Kasimatis, and Gialimas (2009) also promoted the use of various qualitative methods for data collection and analysis when investigating learners' development, conceptual understandings and viewpoints using CMC. Some researchers (e.g., Ashraf, Noroozi, & Salami, 2011; Bueno Alastuey, 2011; Greene & McClintock, 1985; Liaw & Master, 2010; Yamat, 2011) used triangulation and mixed methods approaches to examine concepts from different perspectives.

A summary of a selection of research studies published in the last four years has been included in Table 2.2 to demonstrate various methods used and the general number of participants involved in studies utilising CMC for language development with special consideration given to the studies which included tandem learning. It is not a comprehensive overview. A few recent studies into listening development which do not focus on the use of CMC have also been included in the overview.

Table 2.2
Overview of Studies Using CMC for Language Learning

Author/s	Research focus	Method	Participants
Ashraf, Noroozi, & Salami (2011)	Effects of using podcasts on the development of listening in English language learners	Experimental & control group. Listening pre-test & post-test. Qualitative data: interviewing some of the participants & reflective diaries	58 students learning English
Bueno Alastuey (2011)	1) How the different modes of learning & partner arrangements effected students' progress (oral); the task; their ability; & duration of task work. 2) affordances of experimental treatment (voice communication)	Mixed-methods Quantitative: pre-tests, post-tests & survey questionnaire. Qualitative data: diary entries. Triangulation of the data. 12 pairs (same L1 partners) & 20 pairs (different L1 partners) for ½ hour every 15 days. Headphones & microphones used with Skype. Duration: 15 weeks.	48 undergraduates (24 interacting with each other & 24 interacting with students in another location) from Public University of Navarre in Spain. 2 intact classes of agriculture majors with English as a compulsory subject. Groups' level ranging from low-intermediate to upper-intermediate,
Chen (2009)	The influence of strategy instruction on various ability groups' proficiency in listening.	General proficiency test, strategy instruction, reflective journals. Journals were analysed in the beginning, half-way point,	31 Taiwanese college students of English.
Graham, et al. (2011)	Use of strategies; how strategy selection & use can influence listening ability; Whether teaching style influences strategy choice.	Multi-choice testing listening comprehension.	15 lower-intermediate learners of French in England.
Hauck & Youngs (2008)	Use of asynchronously & synchronously online tools was compared for telcollaboration	Students worked synchronously & asynchronously in online environments with native francophone students enrolled in distance	Native francophone students in distance education at the Universite de Franche Comte Students of French at Carnegie Mellon University US &

		education	French learners at Open university UK
Henderson, Huang, Grant, & Henderson (2009)	The effects that participating in a collaborative language lesson in Second Life had on students' self-efficacy beliefs. The activity required enactive mastery.	Quantitative research: Pre & post questionnaires were administered before & after lesson at a Chinese restaurant in Second Life. Communication was via Instant Messaging with the option to speak about the use of technology	100 students of Chinese language & culture from Monash University
Jauregi, Canto, Graaff, Koenraad, & Moonen (2011)	NIFLAR (Networked Interaction in Foreign Language Acquisition & Research) project: language learning & teaching methods. Focus is on intercultural awareness & social interaction; anonymity compared with familiarity; types of interaction.	2 online tools: Second Life and Skype. Case Study Duration: 2 months. 4 tasks, 2 sets of data collected for analysis: interaction recordings & questionnaires (open & closed items, administered at the end of the pilot). Informal debriefing interviews	4 participants: 2 learners of Spanish (B1 CEFR level) from Utrecht University, Netherlands; & 2 native speakers of Spanish who are pre-service teachers from the University of Valencia & the University of Granada in Spain.
Kitade (2010)	Manner in which learners of Japanese interact when using chat via the internet.	Discourse analysis – sequential analysis. Treatment period: 7 weeks (6 project sessions)	18 students: 11 from advanced Japanese; 4 from intermediate Japanese; 3 native speakers who study at a university in America.
Liang (2009)	Examined participation in a journalistic writing class utilising SL.	Questionnaire data	20 college students from a ESL journalistic writing class in Taiwan.
Liaw & Master (2010)	The project investigated: intercultural awareness development using the CANDLE website.	Mixed-methods research Intercultural e-pals also using a forum. Data was collected from the forum entries from both groups & from short reports written by the Taiwanese students at the end of the project.	33 freshman students of English in a university in central Taiwan & pre-service teacher education students from Texas, USA.
Liou (2011)	Student perceptions of learning tasks in Second Life (SL); & the affordances of SL for language learning & achievement of pedagogical aims.	2 questionnaires & focus interviews. Treatment period: 8 weeks	25 students from Asia studying a 3rd year college selective course “computer-assisted language learning” students 12 students interviewed
Sykes (2009)	Students of Spanish' interlanguage pragmatic development while participating in a virtual space: Croquelandia.	Mixed methods Pretest/posttest design, interviews & observations	25 Spanish learners
Tian & Wang	Project investigated: the benefits from working in	Mixed methods: reflections, video recorded	30 students 15 studying English at

(2010)	an eTandem group: linguistic & cultural; how intercultural awareness was developed; student perceptions of online activities	sessions, written survey & interviews	Peking University in China & 15 studying Mandarin at Griffith University in Australia
Yamat (2011)	Relationship between listening strategy use proficiency levels	Oxford Placement Test & listening strategy questionnaire	92 freshmen

2.4.3 Facilitating the Development of Foreign Language Learning and CMC

2.4.3.1 Roles of the computer in the language classroom

Significant interest had been taken by educators into the different roles and methods for using computers for facilitating language learning. Various forms of using the computer for language learning have been categorized into the broad categories: CALL, Internet-based language instruction, Web-based language learning and CMC. Within each of these categories, particular methods and tools have been used and investigated. In recent literature, CMC and Web-based language learning have evoked much interest (Son, 2011).

Chen and Brown (2011) investigated how using task-based CMC activities might influence learners' ability to write. They concluded that, when the computer is used to mediate communication, it can provide learners with authentic audiences which can motivate and stimulate learners. The participants perceived the CMC communicative tasks to be interesting providing a collaborative environment to learn in. They also appreciated the opportunity to improve their technological skills. The learners were worried about the amount of time taken by tasks and whether they were all relevant to real-life. The learners also found the task-based method, although motivating, sometimes difficult. Some learners had been nervous about writing to native audiences, nevertheless they put extra effort into their task work which resulted in a positive effect on their learning. Chen and Brown viewed the learners' writing as providing them with the chance to carefully select their words to express themselves. The sense of having an authentic audience inspired learners to focus on producing quality work. CMC could be also used to establish competition amongst peers. When they were able to review each others' work, they become more creative and motivated to present a quality product.

CMC facilitates interaction and collaboration amongst learners. It allows learning to be focused on the learner as opposed to the teacher in the front of the

classroom. In this sense, the learning path is more individualized and addresses learners' specific needs. The computer can be used at any hour of the day to access authentic materials and audiences (Kitade, 2010). This enables the role of the computer to be extended beyond the typical classroom hours and be used to complement and extend work which has been established in the classroom or via e-learning systems for distance students (Thorne, Black, & Sykes, 2009).

The various roles of the computer in the classroom influence the role of the teacher. When students are learning within an online environment, the teacher is not the person controlling the discussions. The teacher's role becomes that of the facilitator of learning (Fu, Wu, & Ho, 2009). The role of the teacher is to promote and facilitate critical thinking and investigations of others cultures (Abrams, 2002). Learners can be guided to use interactive learning spaces to develop their intercultural competence (Felix, 2002). The computer can be used to communicate in asynchronous ways (e.g., email) that allow learners to be in contact with native speakers regardless of their time zone issues (Liaw & Master, 2010). Through communicating as well as interacting with the computer, CALL and CMC can also be used to develop specific language skills such as listening comprehension (Jones, 2003, 2006).

2.4.3.2 CMC, motivation and authentic texts

CALL resources such as Web materials and courseware can provide a variety of authentic resources and tasks for teachers to use in their lessons and students to access to extend their knowledge and practise their skills (Kasper, 2000; Lotherington, 2005). CMC can motivate learners to use their target language through purposeful communication (Sun, 2009). Cavallaro and Tan (2006) in their study on computer-mediated peer-to-peer mentoring discovered that there was a significant increase in learners' language ability and content knowledge as a result of participating in peer-to-peer mentoring sessions. They found that using an authentic audience increased the learners' motivation to perform well. CMC provides learners with not only an authentic audience but also the chance to communicate for real purposes (Healey, 1999). Cavallaro and Tan stressed that interaction is at the centre of the learning and teaching process: the greater the interaction, the more effective the learning activity. Learners are able to copy how the native speaker uses the target language (Leahy, 1999). Carney (2008) asserted that without CMC many learners

would not have the chance to communicate with native speakers of their target language. When learners become accountable for their learning behaviours due to interaction with an authentic audience, they will be more directed in their task (Brown, 2000).

Chen and Brown (2011) studied the influence of using a task-based computer environment while utilising an authentic audience on the motivation of learners to write in English (as their SL). Their results demonstrated that the learners were more motivated and initiated self-directed learning of vocabulary as they believed the communication was more important as the audience was real. They felt more ownership over their written work with the intended audience in mind while working on written tasks. Chen and Brown (2011) identified four major thematic categories from their analysis of the interview data, these being related to: perceptions regarding the CMC environment; perceptions on the teaching methodologies; how having an authentic audience influenced learners' quality of writing; and the link between motivation and learners' writing ability. Chen and Brown discovered that, when tasks were considered to be meaningful, learners exerted more effort in ensuring that they portrayed their message as correctly as possible by finding new words and expressions to assist them. The motivational processes facilitated by the use of task-based learning and authentic audiences facilitated learners' self-reflection which may lead to improved motivation and performance on further tasks. The learners had felt that the tasks did not provide enough focus on grammar and form.

In a study on the influence that relevance has on SL learners' motivation to learn using a multimedia-based methodology, it was found that relevance has a positive impact on learner motivation (Chang & Lehman, 2002). Chang and Lehman concluded that SL learning programs that are more relevant to the real world positively influence learners' motivation to learn. The learners were motivated by their own desire to learn and achieve (intrinsic motivation), performed highly on CALL programs that had high relevance.

Bueno Alastuey (2011) examined the influence of using an Internet-based voice communication tool (experimental group) on learners' ability to interact in their SL as well as their perceptions of the activities using the tool and their own learning behaviour. The results of the experimental group were compared with the results from learners participating in the standard face-to-face classroom setting and activities (control group). Pair team partners were changed for each learning task for

the experimental group while partners remained the same for the duration of the project for the control group. Bueno Alastuey found that the learners in the experimental group spent more time on tasks, used their SL more and were willing to sustain conversation with their learning partners in their SL on other themes once the organized learning task was completed. The learners in the control group were more inclined to return to using their L1 once the organized task was completed. Bueno Alastuey speculated that the authentic audience used in the experimental group influenced learners' motivation to use their SL. The learners from the control group appeared to be simply focused on fulfilling the required task while the learners from the experimental group continued to communicate once task requirements were fulfilled. The experimental group were enjoying the interaction and negotiation of meaning that was occurring which motivated their practice and use. Lui and Chu (2010) noted the importance of learner motivation to be actively involved in their learning process and participate in self reflective activities. The instructor needs to be able to devote a considerable amount of time to be able to organise successful tasks using authentic audiences (Chen & Brown, 2011).

2.4.3.3 CMC and strategy use

Son (2011) classified popular available online tools that can be used for language learning into twelve categories. Of the twelve categories, five categories list examples of online tools which can be used for collaborative interactive communication as opposed to only delivering content, these being: social networking and bookmarking; live and virtual worlds; blogs and wikis; communication; and learning/content management systems. Although more articles in general are being published on the topics of CMC and Web-based language learning in journals such as the *Computer Assisted Language Learning (CALL)* journal (Son, 2011), there are limited studies dealing directly with strategy instruction and the use of CMC/CALL (Plonsky, 2011).

Examples of the types of studies that focused on strategy instruction, strategy use and CMC/CALL are: the relationship between SL reading and the use of computer-mediated glosses (Abraham, 2008); the use of online reading strategies (Bouvet & Close, 2006); the influence of strategy instruction for listening using news videotext (Cross, 2009); the use of technology-enhanced learning environments to teach learners reading comprehension and strategies (Dryer & Nel, 2003). Some

studies considered which CALL tools were preferred by learners (Liaw, 2007) and how the affordances of online tools can influence strategy selection (Garica-Carbonell, Rising, Montero, & Watts, 2001; Chen & Chang, 2011). Szedmina and Pinter (2010) explained that online tools such as Skype allow learners the benefit of being able to access other online resources such as dictionaries at the same time.

Harrington and Levy (2010) posited that, if learning and communication take different forms in CMC, competencies in SL communication in a CMC environment may be different to that of a face-to-face environment. For example, if a learner aims at learning a SL to be able to communicate in an online environment only, Harrington and Levy consider these competencies to differ from the competencies required to communicate in a face-to-face environment. Learning aims, activities and assessment need to be aligned with learners' reasons for learning to communicate in a SL.

Liaw (2007) utilized a Web-based EFL learning environment to investigate learners' developing linguistic and intercultural competencies. As part of the learning environment, they were given access to a bilingual concordance and a dictionary to assist with their linguistic competencies and a discussion board to assist with their intercultural communication. The results from an analysis of the frequency in which the tools were used demonstrated that the tools were more frequently used during the beginning units of work and decreased usage occurred as the students progressed through the units. The students more frequently used the online dictionary and noted that the dictionary would be more useful if it contained pronunciation assistance. The concordance was found useful to access related reading material. Chen and Chang (2011) investigated the use of various modes of presenting content using mobile learning technology to assist learners' listening comprehension development in their SL. They examined learners' proficiency levels as moderators in their SL, English. It was found that having a text option to assist audio was beneficial for learners who were at a beginner level of language development. Learners were able to use the text to assist their comprehension by reading words they missed while listening. They were able to use the text option and move forward with their learning when they temporarily lost meaning while listening as opposed to losing meaning and becoming frustrated.

Garica-Carbonell, Rising, Montero, and Watts (2001) analysed the affordances of international networked-based gaming. They asserted that having the

ability to access and communicate with native speakers of the target language as part of a game provides a situation in which learners may need to negotiate meaning. Learners are able to use the technological features of text chat to seek clarification and monitor their own process. They are able to record conversations and analyse them for their adequate comprehension of conversations.

2.4.3.4 Virtual team formation for language learning or cross cultural learning

Ehlers (2007) stated that computer supported collaborative learning where learners work together on shared tasks is based on constructivist theories of learning and is a more beneficial method of utilising e-learning as opposed to the distributive method in which information is simply given via e-learning networks.

Telecollaboration or tandem learning refers to the type of CMC that involves lessons that use an intercultural network (Darhower, 2007; Davis, Cho, & Hagenson 2005). Darhower (2007) discussed tandem learning in relation to pair work whereas Cziko (2004) discussed it in relation to group work. As learners work together in pairs or in small groups on joint tasks and help one another, they develop positive relationships with one another. Cavallaro and Tan (2006) asserted that using the mentoring process is beneficial for the mentor as well as the learner. Thorne (2006) stated that collaborative learning in online environments can be segregated into four key modes: telecollaboration; eTandem; partnerships between local expert speakers and SL learners; and learners' participation in online communities. Being able to understand others' cultures is an important skill in intercultural communication. Having intercultural competencies is becoming more important with the influence of globalization (Liaw & Master, 2010; Mufwene, 2010).

When learners begin communicating and creating positive relationships with members of the target culture through situations, they start to identify aspects of who they are in relation to the target culture. Over time as they become more and more familiar with the target culture, it begins to not feel so foreign which may aid assimilation into the culture. Activities using tandem learning that help learners to become more familiar with the target culture and develop friendships with members of the target culture may also help in reducing culture shock upon arrival in a country as learners have already started to learn about the target culture and begun to understand their own identity and perspectives in relation to those of the target culture (Brown, 2000; Wehner, Gump & Downey, 2011).

Vinther (2011) investigated the influence that facilitating the development of social connectedness between learners of different cultures in a tandem learning program had on learners' motivation to learn and improve their language ability. The program Vinther used required learners to learn about each other's culture through email exchanges. The program approach was grounded in Vygotsky's (1978) social cultural theory and focused on developing learner autonomy in the learning process as learners were responsible for their email interactions. Vinther discovered that during intercultural exchanges, learners found trying to explain concepts that were particular to their culture difficult to convey using a language that did not have the exact vocabulary as their L1 available to explain the desired meaning. Nevertheless, learners had actively tried to express their opinions and ideas during sessions. They found that open-ended tasks kept communication from breaking down as there was flexibility in the task requirements. Most negotiations were focused on provided discussion topics although some were grammar and meaning-based. The learners displayed high levels of enthusiasm throughout the program and had displayed interest in maintaining contact once the program was completed. Chen and Brown (2011) advised that in learning situations that require learner autonomy and intercultural communication, teachers should monitor task contribution and progress. To assist with maintaining learners' conversations and interest, Lesser (2004) asserted that learners should be paired in groups containing learners of different ability levels so that more advanced learners can assist less advanced learners when they are having difficulties with comprehension or construction.

2.4.4 Continuum of Language Learning Spaces

Gardner (1985) focused on the importance of the affective characteristics of learners highlighting the importance of learners' potential to integrate into the target culture relating to how disposed they are towards the culture of the target language. Gardner, Masgoret, Tennant, and Mihic (2004) asserted that the beliefs and attitudes learners have toward the target culture have an influence on learners' potential success in learning the language. They discussed the importance of providing learners with the opportunity to learn about the target culture and communicate with members of the target culture to develop positive attitudes. The continuum of language learning spaces (see Table 2.3) overviews the options teachers have to facilitate tasks that assist learners with interacting with members from the target

cultural group and accessing authentic resources and audiences from the target culture.

Barron (2004) described learning spaces as a group of various physical as well as virtual spaces that learners can utilise to develop their skills. Burbles (2006) classified learning spaces as being where “creativity, problem-solving, communication, collaboration, experimentation and inquiry can happen” (Burbles, 2006, p. 40). By examining the concept that language learning spaces can be organised on a continuum from least to most exposure to native speakers and the target culture and what each learning space and its available resources provides learners for the development of listening comprehension, this study contributes a new perspective to learning theory regarding the development of listening comprehension for SL learners. It aims to demonstrate that the use of online tools in an online collaborative learning space and a virtual learning space, as outlined in Table 2.3, is an important component of effective facilitation techniques for the development of listening comprehension. Teachers are able to organise learning by creating purposeful tasks that utilise authentic resources and audiences within online collaborative and virtual immersive learning spaces.

Table 2.3 demonstrates how learning spaces can be placed on a continuum of language learning spaces from the learner’s world, individual learning space, community learning spaces, classroom environments, online collaborative spaces and virtual learning spaces to living in the country where the target language is spoken. In a learner’s personal learning space, learners who are studying a language such as Croatian may choose to do so due to their cultural heritage being Croatian or they have married into a Croatian family. In this circumstance, they may in their personal life hear the SL being spoken around them in family or social circles that may even be limited. If the learner is motivated to learn the SL out of interest in the target language or for potential work purposes, they may or may not have any exposure to the SL in their personal environment. When learners are studying at home, they generally interact with resources provided to them or found by them, such as using an online dictionary (Harrington & Levy, 2001).

Community learning spaces may be locations where learners can have an opportunity to participate in the target language culture. Learning spaces such as cultural community clubs and centres where the language and culture might be celebrated may be located in areas where learners can attend functions or meet native

speakers of the target language. Community members may be the first or the second generation of the target culture in the learners' country. Clubs may also exist without a physical location where members meet up regularly and socialise such as the Australian Woman in Split club. This club consists of women who were born in Australia and have moved to Split. They meet socially once a month. Learners of English who are interested in Australian culture could ask to attend the gatherings to meet Australians, practise speaking in English with them, practise listening to native speakers in group conversation and ask questions about the culture. Another example of a community learning space is a business owned by members of the target culture where the service staff speaks the target language, an example in Queensland, Australia being 'Adams' which is a butchers and delicatessen that is owned by Croatians and has many Croatian staff members who will speak to customers in Croatian if desired. This learning space provides learners of the target language with the opportunity to speak in and listen to the target language in an authentic environment. It provides learners with a sense of being in a shop in Croatia and many of the condiments, biscuits and other food items are imported from Croatia and other European locations. Access to community learning spaces would depend on learners' proximity to the locations and the availability of such businesses in their city or town.

In the classroom environment, SLs are often spoken at a slower than native speed so that learners can comprehend spoken text. Decreasing the speed of the spoken text is often viewed as a benefit for learners who are at the beginner and intermediate level (Dupuy, 1999). Learners have the opportunity to interact with other learners in the class and the teacher who may be a native. The classroom environment may include activities that utilise online collaborative spaces and virtual learning spaces if planned for by the educator. As demonstrated by Tian and Wang (2010), the online and virtual spaces can also be used during out of class time as a homework activity. The shared online collaborative and virtual learning spaces can be created to feature many similar characteristics to that of the target country, for example, a virtual representation of a famous aspect of a city. Activities can be structured to guide learning using online tools to create relevant learning spaces. A distinction is made between online collaborative learning spaces and virtual immersive learning spaces as collaboration in the latter includes virtual worlds where learners are represented by avatars and are immersed in the virtual environment.

Virtual immersion is placed on the continuum as being closer to the country where the target language is spoken as it includes an environment which can be created to represent the target culture, it can contain environmental print (for example: text located on posters and signs) and the possibility to meet native speakers randomly on the street and make friends. Learners may also be able to visit a cinema and watch movies or go to a cafe and order food in the virtual location using similar language to how people would participate in these activities in the target country. The tasks that can take place in the virtual environment are similar to tasks that can take place in the country where the target language is spoken. Lee (2004) supported the concept of using CMC to create authentic spaces for interacting noting the value in learning using authentic materials and participating in authentic experiences.

Table 2.3

Continuum of Language Learning Spaces

	Learner's environment as a learning space	Community Learning Spaces (e.g., cultural community clubs, businesses)	Classroom environment as a learning space	Online collaborative spaces (e.g., Skype, forum)	Virtual immersive Learning spaces (e.g., Second Life, Reaction Grid)	Country where target language is spoken natively
Verbal interactions with native speakers	<p>Different forms depending on learner. E.g. individual learning without access through the computer - small amount or no exposure to foreign language (Jin & Erben, 2007), may have interaction with significant others who speak the target language (Wardhaugh, 2006)</p> <p>Exposure to listen to limited topics for limited purposes such as watching a movie in the target language or topics of typical discussion by significant others (If studying externally:</p>	<p>Interaction with native speakers or second/ third generation speakers of the target language.</p> <p>Exposure to listen to topics that are used at the community location.</p>	<p>Language can be spoken slower than native speed (Hadley, 2001)</p> <p>The educator is the example of native speech (if native)</p> <p>The educator has selected topics & purposes for language use.</p>	<p>Spoken communication with native speakers via video conferencing and VOIP (Cziko, 2004). Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) can be at native speed if spoken.</p> <p>Variety of topics & purposes for language use can be found.</p>	<p>Spoken communication with native speakers via voice chat. Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) can be at native speed if spoken.</p> <p>Variety of topics & purposes for language use can be found.</p>	<p>Spoken communication with native speakers via face-to-face communication. Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) at native speed when spoken.</p> <p>Variety of topics & purposes for language use can be found.</p>

	the educator has selected topics & purposes for language use.)					
Reading and writing material/ opportunities	Reading & writing selected materials for personal purposes or as directed homework.	Reading & writing materials on display or provided by the community group.	Reading & writing constructed texts for learning purposes (Hadley, 2001), such as: texts from a textbook; taken from the internet; or created by a teacher. The purpose is usually teacher directed and in response to instructions in class.	Reading & writing authentic texts as part of teacher organised task work; online authentic material; authentic communication.	Reading & writing authentic texts as part of teacher organised task work	Reading & writing authentic texts as part of a dialogue used for a purpose to achieve a real world goal or solve a problem.
Learning organisation/ Grouping	Individual	Group	Individual, pair, small group & whole class learning opportunities (Hadley, 2001)	Tandem learning (Ehlers, 2007), individual & groups.	Tandem learning (Ehlers, 2007), individual & groups.	Individual, pair, small group, large group learning opportunities.
Available resources in the learning space	Possibly relatives or significant others. Listening & viewing media computer programs (computer as a tutor) Cultural knowledge from textbooks.	Community members	Possible posters the educator has placed on walls in the classroom, textbooks, magazine. Cultural knowledge comes from the educator & textbooks.	Perhaps documents on a wiki or forum. Video conferencing. IM Cultural knowledge available through online conversations, websites produced by native speakers & educators.	Exposure to language in different formsconversations; & immersive (Cooke-Plagwitz, 2008). Virtual worlds: a representation of the country of the target language.	Language is displayed in the environment in different forms. Cultural knowledge available from natives through conversations on a variety of themes & also provided as part of the environment, such as: music, posters, signs, memorials &

						buildings.
Corrective feedback	None or from relative/ significant other. For external students: interaction minimal via grading & teacher comments.		Can contain immediate as well as delayed corrective feedback from the teacher or classmates during class time.	Feedback can be immediate through VOIP, video conferencing.	Feedback is immediate through conversation.	Feedback is immediate. It can be delayed when letters, reports or emails are used.
Access to learning space	All day access	Varied depending on the community group.	Class time (for on campus students)	All day access	All day access	All day access

It is displayed in Table 2.3 that, if educators do not include a virtual or online collaborative component in distance education/external courses, the level of interaction for distance/external students is extremely low occurring via corrections and notes from the lecturer or with others in the learner's personal environment if they have access to native speakers. Interaction for on-campus students is the same as for external students with the added advantage of listening to fellow class members and the lecturer speaking the target language. Nevertheless, access to listen to native speakers of the target language in conversation is limited as is exposure to a variety of contexts (domains) where the target language is used in a similar fashion as in the target culture. If a student lives with a native speaker they may have the opportunity to use their target language in their private domain. Students may have the opportunity to use their target language in a public domain if an ethnic community club, a shop or café is managed or owned by members from the target culture and they speak the target language there. Finding opportunities to listen to the target language being spoken natively across many domains can be difficult while living outside of the country where the language is spoken natively (Jin & Erben, 2007). As outlined in the continuum, the possibility of communicating across the domains can exist or be created using online collaborative spaces and virtual immersive learning spaces.

2.4.5 Utilising Skype for Cross National Collaborative Learning and Listening Development

Much of the literature exploring intercultural SL education in which learners are involved in collaborative language and cultural exchanges has involved synchronous chats and email exchanges. There is a need to further explore oral and visual intercultural communication. Skype is considered to be an easy-to-use, reliable and affordable video conferencing tool. It is considered easy to learn, requiring little instruction. It is also available in 28 languages and in most countries with the possibility of one-to-one video conferencing (Tian & Wang, 2010).

Carney (2008) studied the use of a variety of ICTs (e.g., Skype, blogs, wikis, voice chat, and student made DVD movies). There were 24 participants located in Japan who were studying English and 6 participants located in the USA who were studying Japanese. The study occurred over seven weeks. Skype was viewed as a beneficial platform that provided learners with the opportunity to access native

speakers of the target language. Learners needed to prepare for conversations with their tandem partner in advance by creating questions. Although Carney recommended the integration of various online tools into language programs, the ESL learners expressed the view that Skype was their favourite activity. Eroz-Tuga and Sadler (2009) conducted a comparison of the use of six different CMC video chat tools by language teachers and language learners. Language teachers reported that they preferred Skype and MSN Messenger. The teachers based their decision on personal preference, academic preference as well as ease of technical use. The language learners indicated that they preferred learning activities that used Skype and were focused on one to one communication compared to online tools such as CUworld that was designed for communication in a community of learners. Tuga and Sadler (2009) reported that the learners had not clarified their reasons behind their preference.

Jauregi, de Graaff, van den Bergh, and Kriz (2011) investigated whether synchronous CMC using video-conferencing influenced SL learners' motivation to learn. They found a positive impact on learner motivation with greater effects on learners with lower ability levels (CEFR A2 level) than learners with higher ability levels (CEFR B1 level). Lee (2007) stated that video-conferencing was beneficial for the development of language learners' communication skills in a SL due to the feature of allowing for learners to see one another and thus access nonverbal visual cues during conversation. Lee (2007) provided 18 SL learners with the opportunity to practise their SL skills utilizing a video conferencing tool. The participants collaborated in a pair group with an expert speaker of their target language and were required to undertake task work together. Data was collected through learner reflections and interviews at the completion of the learners' video-conferencing sessions. Lee reported that video conferencing was a useful tool that enabled learners to interact with native speakers of the target language. Video conferencing can be used for collaborative learning that focuses on facilitating pragmatic and linguistic skills development.

O'Dowd (2000) studied the perspectives of a class of American students and a class of Spanish students on their use of video conferencing for intercultural communication. The American and Spanish students were communicating with the aim of developing cultural awareness of each other's culture. The American class contained fewer students than the Spanish class which resulted in the American class

gaining more opportunities to speak to a member of the Spanish class and the Spanish students having to wait longer for a turn to speak with an American student. Having less opportunity to interact and having to wait for their turn affected the Spanish students' perceptions of video conferencing. The Spanish students reported that they had not improved their vocabulary and felt frustrated by not being provided enough interaction time with the American students. Results demonstrated the importance of providing sufficient opportunity to use a technological tool and participate in intercultural discussion.

Tian and Wang (2010) facilitated an online exchange project (eTandem) with learners of two different languages from two countries: learners in China (Peking University) learning English and learners in Australia (Griffith University) learning Mandarin. Tian and Wang aimed at comparing the views of both sets of learners on the use of Skype for developing their understanding of their target culture and their communicative skills using their target language. The study examined the linguistic gains for the ESL learners and the learners of Mandarin, how intercultural understanding was developed between the participants, and if the learners had similar or different views on the technique. The eTandem activities took place outside of class hours. The findings suggested that the eTandem activities using videoconferencing had assisted learners in improving their intercultural understandings and linguistic abilities. Thus, indicating that using the e-Tandem learning technique using Skype could potentially become a maintainable learning technique for use outside of class time. Nearly all of the learners from both groups reported that their listening skills in their target language had improved as a result of participating in the e-Tandem Skype activities.

Tian and Wang (2010) found that the learners' proficiency level influenced the learners' view of the activity. The learners who had higher ability in their target language reported much more positively than learners who were at a beginner's level of proficiency. They concluded that proficient learners were able to answer complex questions and use their target language (English) when the communication in their partners' target language, Mandarin, came to a standstill. As a result, English was used more widely during exchanges which they believe could have influenced the benefits each group acquired from participating in the activities. Tian and Wang found that having learners paired from greatly varying ability levels resulted in the low ability learners losing confidence in the exchange and suggested that, although it

can be difficult to match learners' ability levels, teachers need to consider how to cater for and support the varying ability levels of learners.

Szedmina and Pinter (2010) posited that Skype affords learners a learning situation that allows them to practise familiar activities without needing to be present in the classroom. They asserted that not all types of language learning activities for all areas of development are suitable for online learning. A major advantage of the online tool, Skype, is that it allows learners to be able to learn language from any location – this allows learners to balance their work and family commitment with their study. They are also able to learn at their own rate, not having to wait for less proficient learners. Szedmina and Pinter viewed the greatest potential of using Skype for language learning to be for solving exercises and tests between the learner and teacher/mentor. Being online allows the learner to use other online resources (e.g., online dictionaries) during the Skype activity. Szedmina and Pinter also pointed out a potential negative aspect of learners having multiple windows open at the same time as being that they may focus elsewhere and lose focus on the task at hand by checking other emails or doing other online activities while in class. It is then left to the teacher to decide if the learners are not understanding a concept or simply multi-tasking instead of focusing on the concept.

Hauck and Youngs (2008) conducted an international study in which students of French from two different universities (one in the UK and one in the US) collaborated with native French speaking students from France to improve their second language skills. The use of asynchronous and synchronous online tools was compared. It was found that although video-conferencing allowed for real-time communication with native speakers, the students preferred asynchronous communication. Although during video-conferencing students had access to visual cues, they felt that they had more opportunities to interact and develop their relationship with their partner via text conversation.

2.4.6 Utilising Second Life for Cross National Collaborative Learning and Listening Development

MUVEs as well as Skype provide learners with the opportunity to practise and develop listening skills while having synchronous conversations with native speakers. In a virtual world such as Second Life, aspects of the virtual environment (e.g., buildings, signs, transport, etc) are able to reflect the real world and learners

can become part of the environment by interacting in it (Deutschmann, Panichi & Molka-Danielsen, 2009; Dieterle & Clarke, 2008; Schwarts, Lin, & Holmes, 2003). They become immersed in the language and culture (Burbles, 2006). It was identified, prior to the development of publicly accessible virtual environments, that the environment and the context in which learning takes place influence learners' ability to remember and recall (Godden & Baddeley, 1975).

In a study on tandem learning, Cziko (2004) pointed out the limitations of a typical language classroom and the amount and standard of language experience available to the learner in this environment. He proposed that an environment that reflects aspects of the natural environment while also having the benefits of teacher direction could provide the learner with opportunities to relate to the SL group culturally as well as participating in guided learning tasks. Second Life has the advantage of offering an environment which can be used for pair group interactions and also small group conversations where learners can listen to the banter of the group and become familiar with the nature of such conversations in the SL, for example, starting, stopping, talking on top of one another and changing topics. Second Life allows for exposure to a variety of situations with many forms of conversations for the development of speaking and listening skills (Deutschmann, Panichi, & Molka-Danielsen, 2009). Although learners may be physically situated in distant locations, their virtual representations of themselves (their avatars) meet together and share the same virtual space. They are able to build their own online community by constructing knowledge together, sharing concepts and ideas, and collaborating on tasks (Antonacci & Modarress, 2008; Cooke-Plagwitz, 2008). The virtual environment is a shared space (Burbles, 2006). Gilgen (2005) refers to the creation of a community and personal identity as presence learning.

Due to the potential for Second Life to resemble real life, it can be designed by educators to provide the required cultural and linguistic immersive environment. The learners are able to practise listening skills in the environment. For example, as opposed to setting up a role play cafe in the classroom, the learners can visit a virtual cafe and order from native speakers of the target language. The learners are able to visit many different virtual environments and see other learners' avatars that contribute to a feeling of belonging to the group (Cooke-Plagwitz, 2008). Schwarts, Lin, and Holmes (2003) investigated the use of virtual worlds for teaching and cultural exposure. They discovered that being in a virtual world and coming in

contact with other cultures provided the learners with valuable exposure to other methods of teaching and learning. Discovering new educational concepts also facilitated their self-reflection on their personal previous conceptions about learning and culture. Through exposure to new cultures, the learners reflected on their own culture gaining deeper understandings.

Omale, Hung, Luetkehans, and Cooke-Plagwitz (2009) stated that the community feeling that can be created in the virtual environment can be less isolating for some learners. They suggest that using Second Life may provide introverted learners with an opportunity to interact as the format can be viewed by learners as less threatening than face-to-face interaction. Skyes (2005), when investigating the effects of written chat, oral chat and traditional face-to-face chat on pragmatic development, discovered that learners felt less stress when communicating using CMC than the traditional face-to-face communication. Wehner, Gump, and Downey (2011) investigated how incorporating the use of Second Life into the teaching methods used in an undergraduate Spanish course affected learners' motivation. They found that learners displayed an increase in motivation as well as a decrease in anxiety when compared with learners who participated in the standard teaching course using traditional methods. Similarly, Sykes (2009) studied how learning in virtual environments influenced the interlanguage pragmatic development of 25 learners of Spanish. The virtual environment was called Croquelandia. It was discovered that their pragmatic skills did improve from their experience learning in the virtual location.

Jauregi, Canto, Graaff, Koenraad, and Moonen (2011) compared learners' perceptions of the use of Second Life with the use of video-conferencing for interacting in their target language. They found that the participants felt Second Life facilitated more opportunities for communication on a larger variety of topics than video-conferencing did. Second Life afforded spontaneous discussion relating to the context or an action. They felt the virtual space engaged their imagination. This feature was an added advantage of using Second Life compared with classroom settings. The participants believed they had become more confident target language users after practising and learning in Second Life. One of the participants (four in total) felt that being able to see a person's facial expression assisted in communication and viewed the lack of facial expression as a disadvantage when using an avatar in Second Life. Learners believed the intercultural communication

felt real in Second Life. During the course of the interactions in Second Life, the participants had limited interaction with unknown avatars in the virtual space. They found that when they did meet an unknown avatar, the unknown person was not necessarily interested in interacting with them. While interacting during organized tasks, the participants were interested in learning about the target language culture. The participants were paired with the same avatars for tasks. They reported that, although they did not see the person in real-life, they gained a sense of familiarity communicating in Second Life using avatars. Their representation of themselves through the use of their avatar did not feel anonymous to their partner in Second Life. All participants demonstrated a preference for using Second Life for oral communication rather than using video conferencing. Their reasons reflected technical and environmental factors. Some students encountered more technical issues using video conferencing than while communicating in Second Life. The participants perceived there to be great value in communicating and practising their language use in a life-like environment that was specifically designed for the learning aims. They felt the experience was more beneficial than reading and role-playing pretending to be in an environment to practise speech. In comparison with using video conferencing, they found it was easier to log on and use Second Life.

Burbles (2006) identified four key processes that the learners experience when immersed in a virtual environment for learning purposes: interest, interaction, involvement and imagination. These processes are viewed as being tools that educators can use to stimulate motivated active engagement of learners. These processes are also similar to the processes learners may use when in real life environments where the language is spoken natively. Learners can participate conceptually using their knowledge of the language by participating in spoken dialogues and testing their own listening comprehension through the other interlocutors' reactions to what they say much the same way as one does in real life (Burbles, 2006).

Kuriscak and Luke (2009) considered the use of Second Life for facilitating corrective feedback to learners of Spanish. A task-approach was taken that used the available features of Second Life, for example, the learners utilized both asynchronous as well as synchronous communication tools. Important vocabulary and grammar aspects from their class textbook were used to guide task design. The results demonstrated the linguistic value and confidence learners gained from

communicating with native speakers as opposed to non-natives.

Liou (2011) investigated the effects that the affordances of using Second Life in a CALL course had on the achievement of the course aims as well as 25 learners' perceptions of the four Second Life activities undertaken during the course. Liou reported that learners believed that Second Life afforded them with the opportunity to interact and immerse into a virtual environment that represented an authentic location. The use of an authentic environment allowed for more natural and contextualized communication which learners believed was beneficial to the teaching and learning of English. Liou asserted that the use of Second Life needs to be planned for with task selection and clear pedagogical goals and methodology as important. The learners made use of the various technological features available to them. They immersed in the environment and found it more interesting than their typical class work. Although verbal communication was attempted through the voice option, the learners resorted to using instant messaging as their slow Internet speed made voice chat difficult and frustrating. The unfortunate reality of using online tools that require a considerable amount of bandwidth is that the Internet connection and speed available to the learners will have a positive or negative effect on their learning experience in the virtual world. Slow Internet speed could lead to frustration and an inability to communicate effectively. Approximately 64% of learners in Liou's study reported feeling frustrated when attempting to use the virtual world from locations outside of the classroom because of their unstable bandwidth.

Teachers and their guiding pedagogy can be used to steer the creation of educational virtual spaces purposely made for facilitating various types of interactions as determined by learning objectives. In creating tasks, it is important to select the available tools carefully as features that appear suitable may not be, for example, the SL learners in Liou's (2011) study found that using note cards hindered their learning as opposed. Learning to use the note cards required much time as did actually using them. Peterson (2006) studied using the virtual world titled Active Worlds with a task-based learning approach to learning and found that the context, the affordances of the virtual world, the features available in the space, sociolinguistic aspects of communication, as well as the tasks interacted to influence the learners' experiences. Ho, Rappa, and Chee (2009) added that the background and experience of the teacher as well as the learners influence the learners' experiences in Second Life.

Stevens (2006) asserted that virtual worlds are able to offer new methods for education as opposed to simply providing new online tools to enable similar types of activities. Virtual worlds are viewed as inspiring aspects of imagination which influences the learners' creative abilities. Immersion in authentic cultures containing authentic materials and being able to role play as well as genuinely interact with communities of people make virtual worlds valuable spaces for engaging learners in unique learning experiences. Schwienhorst (2002) also placed great value on the affordances of virtual environments that provide stimulating exposure to varieties of language as well as facilitating creative learner centered and driven exploration and learning.

Zheng, Young, Brewer, and Wagner (2010) explored ESL learners' use of game-based learning environments and found that the affordances of virtual worlds containing avatars, asynchronous and synchronous communication tools as well as being able to navigate the World Wide Web provided positive and unique interactive experiences for the learners. The variety of resources available for learners assisted in maintaining interest as well as their learning processes. Henderson, Huang, Grant, and Henderson (2009) explained that virtual worlds are very appropriate and advantageous for learning languages as the virtual spaces can be rich with language examples delivered in a multimodal manner. They studied the influence participating in a collaborative lesson in Second Life had on the self efficacy beliefs of 100 university students of Chinese as a SL. The results demonstrated that learners gained sense of achieving that they linked to a life-like circumstance, that being, ordering food at a Mandarin restaurant making the activity more relevant and interesting.

Henderson, Huang, Grant, and Henderson (2009) reviewed literature regarding language learning in virtual worlds (e.g., Carr, 1995; Clark & Marshall, 1981; Little, 1997; Ma, 1996; Sanchez, 1996; Schwienhorst, 2002; Tannen, 1982; Wells, 1981, cited in Henderson et al., 2009) and asserted that the affordances are that: a) learners are able to work together collaboratively; b) being able to communicate via text messaging assists to improve learning within the virtual world which provides multimodal input (e.g., audio, text, animation, video, graphic); c) communication and language facilitating tasks can use the virtual space during the lesson as one would use in real-life, for example, using prepositions which relate to to position to point out an object; d) the environment can be designed to present information in multimodal ways which allow learners with various learning styles to

access the information in their preferred manner much as they would select their own resources in a real-life context; e) learners can use the same environment again as well as review records of their interaction within the virtual space for reflection and revision; and f) the use of an avatar can provide learners with the opportunity to experiment with an alter-ego. As a result of using an avatar, learners can feel more anonymous and less anxious.

In summary of the literature presented, when comparing the different affordances and features of SL and Skype, Skype was viewed as easy-to-use, reliable and affordable (Tian & Wang, 2010) with Second Life being easy to log on to. Second Life and Skype offer a free user package as well as paid user plans containing more features. Both tools provide assistance in many languages. Skype is presented in 28 languages while Second Life allows for the use of instant translators in multiple languages. Both tools afford users the opportunity to assess native speakers (Carney, 2008; Hauck & Youngs, 2008; Lee, 2007) through synchronous and asynchronous communication. Skype and Second Life provide learners with the opportunity to practise outside the classroom (Szedmina & Pinter, 2010). Both online tools enable users to access other online resources during use. Both tools allow users to develop relationships with other users (Jauregi, Canto, Graaff, Koenraad, & Moonen, 2011). Both online tools provided a text message function. What Skype offered that Second Life did not was video-conferencing. What Second Life was identified as offering while Skype was not was: a virtual environment that can be constructed to reflect the real world; the opportunity for learners to interact with the environment (Deutschmann, Panichi & Molka-Danielsen, 2009; Dieterle & Clarke, 2008; Schwarts, Lin, & Holmes, 2003); an opportunity to become immersed in an authentic culture and language enabling potential experiences in many situations (Burbles, 2006); the creation of a community and presence learning (Antonacci & Modaress, 2008; Cooke-Plagwitz, 2008; Gilgen, 2005); the ability for educators to be able to design the learning environment; exposure to other learning methods through exposure to other cultures (Schwartz, Lin, & Holmes, 2003); and virtual spaces be able to contain many language examples delivered in a multimodal manner (Henderson, Huang, Grant, & Henderson, 2009).

2.4.7 Facilitating Listening Comprehension Development using CMC

Harrington and Levy (2001) reviewed the tendency for CALL research to be grounded in the interaction account of language learning and posited that basing CALL research on theories of language learning does not account for the effect that the technology and media have on how the SL learning occurs and how the language is used is not sufficient. They asserted that the type of media used has much influence on how research questions and methodology are created and designed. They stated that the media itself needs consideration in the development of theory relating to CALL. When discussing online tools in general, Uzunboylu, Bicen, and Cavus (2011) argued that technology has assisted teachers in considering the educational process from different points of view. They posited that technology can also be used to facilitate the development of learners' ability to self-reflect, for example, self-reflection could be achieved during reading practice with prompts which have been preset. Chen (2008) stressed that teachers need to understand what technological tools exist and which activities they are best suited for.

Pawan, Paulus, Yalcin, and Chang (2003) warned that simply including CMC tools into a program does not ensure that effective communication will take place between learners. Stockwell (2007) asserted that it is imperative for teachers to be aware of the affordances of technological tools and have experience with using them. The knowledge of the tool will assist teachers in making informed decisions in their use for achieving learning aims. The background experience of the learners and teachers, the curriculum, and the requirements of the technology requires consideration when planning for learning (Ho, Rappa, & Chee, 2009). Liou (2011) stressed the importance of clear language learning objectives guiding the creation of suitable tasks when using virtual worlds for learning.

When determining which online tools to use for this study and the types of tasks that would suit the use of the tools, it was found that there was a need to create a framework which could ground the selection of the online tools in pedagogy which could be used to assist educators in making these selections and decisions. The framework needed to place the selection of online tools within the teaching, learning and assessment cycle. The framework developed for guiding teachers' selection of online tools could also be used as a framework for guiding research in the area of CALL/CMC. The framework brings together identified key areas from the research relating to the relevance of pre-testing and post-testing (Budoff, 1987); facilitating

learning experiences with more capable peers or the teacher within learners' ZPD (Vygotsky, 1978); and teachers' knowledge and use of ICTs (Chen, 2008). The framework is based on action-research cycles with a focus on the need for reflection and evaluation to be documented (Stringer, 2010). The framework promotes the documentation and dissemination of identified affordances and successful usage of ICTs to facilitate listening comprehension. The cycle begins with pre-testing learners to ascertain their ability level. Based on their educational needs and concepts of teaching within the ZPD, educational aims are decided on. How these aims can be achieved is considered with reference to which ICTs best suit which learning tasks. The process requires creative thinking about the type of potential tasks that can be facilitated using suitable ICTs for the development of the SL skills. The tasks are then created and the ICTs are selected. Learners participate in the designed activities. At the completion of the teaching/facilitation period learners are post-tested. Learners and teachers then reflect on and evaluate the task and use of the ICTs. It is the teachers' responsibility to disseminate their findings to other teachers and if possible, through academic outlets.

Examples of how the process can be used to cater for a variety of needs in a variety of learning spaces are: 1) if the learners need to improve retention of words following a communicative task in class, for example, in the individual space at home learners could use the computer-as-tutor model and play computer games that feature the SL including verbal repetition of target words to assist word knowledge and improve recall; and 2) if learners need practice with communicating in a restaurant setting, the virtual world could be used and accessed from the classroom or the learners' home with learners role playing being waiters or patrons in a virtual cafe in a virtual world.

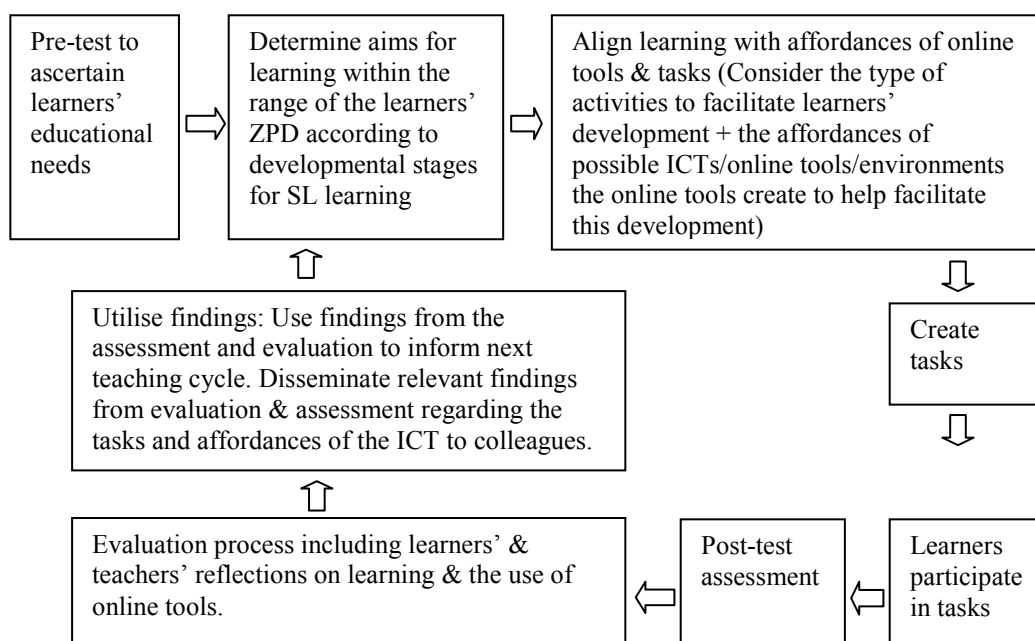


Figure 2.1. Framework for the selection and use of ICTs for facilitating SL learning.

The results from Peterson's (2010) study on the use of massively multiplayer online role-playing games (MMORPGs) for SL learning demonstrates the importance of investigating the selection of online tools so that their affordances can be matched with learning aims and learner needs. Findings suggested that MMORPGs such as Ever Quest II require intermediate to advance level skills for the learners to be able to adequately engage in the learning experience. The low ability learners found the challenges of the environment difficult to manage. Using small groups of learners was an advantage. ESL learners who played the MMORPGs in this treatment group used their SL often with much output.

2.4.8 Barriers to Incorporating ICTs into Language Learning and Teaching Practices

Examples of the potential difficulty with using online tools such as Second Life and Skype are: the cost of the hardware; Internet connection speed requirements (Henderson, Huang, Grant, & Henderson, 2009; Jauregi et al., 2011; Liou, 2011); the skills needed to use the online tools (Cziko 2004); time delays hindering listening ability; users who do not act appropriately which requires systems and policies to be in place which deal with bullying; that areas in virtual worlds can contain mature content (Antonacci & Modares, 2008). Burbles (2006) stated that communication is influenced by how anonymous the user is. The results of being anonymous or hidden

behind an avatar may allow individuals to feel less responsible for the outcomes of their meeting. Their anonymity may influence their actions and chosen words and interaction with others. A potential problem with using Second Life can be that, if too many learners meet in one location, the system may lag resulting in image or sound delays or crash. It can be an expensive exercise if a university wishes to own land. There can be the issue of unwanted trouble makers entering a virtual learning activity and interrupting (Cooke-Plagwitz, 2008). When establishing virtual teams with individuals located in different places around the globe, the issue of time difference can also become a problem. Available appropriate times to meet online may become limited (Karpova, Correia, & Baran, 2009; Liaw & Master, 2010).

Chen (2008) reported that any of the potential barriers could result in an unsuccessful attempt to incorporate technology into classroom practice. When attempting to incorporate a new experience for learners using technology into an already existing course and the person doing so is often not the teacher of the course, Chen suggested that considering the teacher's beliefs about learning and their role in the process is highly important. Deutschmann and Panichi (2009) concurred with Chen's perspective. It is also important to ascertain whether the teacher believes the change to be relevant or an enforced condition from administrators. Nevertheless, it is asserted that teachers need to become familiar with ICTs: what is available for use and how these tools should be used. Their familiarity will help reduce any fear a teacher may have with using technology. Chen found that teachers in general were more skilled in using online dictionaries and email and displayed little skill in using multi-user domains and video-conferencing.

2.5 Summary

Individual's mental schema holds information about how one needs to culturally act and the typical scripts or conversations that take place in various situations and language domains within a culture. If schema and their associated scripts are developed by learners when they are participating in circumstances and receiving feedback, then language tasks that reflect such circumstances should be beneficial to language development. It is logical to infer that if teachers are able to provide learners with authentic experiences that reinforce a schema and its associated scripts using authentic resources, learning a SL from afar would more closely resemble learning a SL like living in the target country. The continuum of language

learning spaces demonstrates how online tools can potentially provide learners with experiences that are authentic to assist their development of authentic schemas. Virtual worlds can also provide an environment that can look the same as the real world. Based on this conceptual framework, the study focuses on specifically identifying the affordances, perceived effectiveness and effectiveness of utilising the learning spaces created by Second Life and Skype for developing SL learners' listening comprehension development.

Chapter 3

Methodology

3.1 Subjects

In general, CSL learners at Macquarie University were having difficulty developing their listening comprehension skills due to various issues in their learning situations which were similar to the issues identified in the literature review such as having a lack of communication with native speakers. They were completing diplomas of Croatian by sitting exams that focused heavily on writing and reading skills. Although they passed their exams and received diplomas, they were having difficulties participating in conversations in Croatian during and following completion of the course (Head of Croatian, Macquarie University, personal communication, March 21, 2009). The CSL learners at the University of Queensland were also experiencing difficulty with the development of their communicative competence. The ESL participants' curriculum at both the University of Mostar and Split University were focused heavily on reading and writing. Learners did not have much opportunity to communicate with native speakers. The facilitation techniques used in the study consisted of between five and eight tasks that took place once a week for five-eight weeks. Each five to eight week block of time is referred to in the study as a treatment period. There were a total of three treatment periods: Treatment Period 1 (5 weeks duration during March – April, 2010); Treatment Period 2 (eight week duration during October – December, 2010); and Treatment Period 3 (eight week duration during April-June, 2011). Each group consisted of either ESL or CSL participants. Two groups participated during Treatment Period 1, two groups participated during Treatment Period 2, and four groups participated during Treatment Period 3. The participants were separated into four groups during Treatment Period 3 as this treatment period contained new participants from the University of Mostar and the University of Queensland. Using two ESL groups and two CSL groups allowed for both the Skype and the Second Life facilitation techniques to be investigated with the new cohort of participants. Table 3.1 and Table 3.2 outline information relating to the universities the participants were studying at, the courses they were studying, their age, gender, motivation for learning their target language and the duration of learning their target language. There were a

total of 35 participants with 11 of the participants completing both Treatment Periods 1 and 2. Each participant was given his or her own participant number. The participants who completed both techniques retained the same participant number. There were 39 participant numbers as Participant 9 and Participant 10 left the study which resulted in their partners: Participant 19 and Participant 20 also leaving the study. Refer to Appendix C for an overview of pair groups as per participant number.

Table 3.1
ESL Learners' Participant Group Profiles

Group & Target Language	Location/ University & Course	Average Age	Gender (number in group)		Motivation			Duration of learning the target language	
			Male	Female	Communication (EU & rest of the world)	Interest/ Improvement	Compulsory	Learnt in primary and high school	Learnt in high school
Group 1 ESL	Split, Croatia, University of Split, Legal English	18.13	3	5	4	2	2	4	4
Group 3 ESL	Split, Croatia, University of Split, Legal English	18.16	1	5	1	0	0	0	1
Group 5 ESL	Mostar, B&H University of Mostar, English (Arts Degree)	18.67	1	2	3	0	0	1	2
Group 7 ESL	Mostar, English (Arts Degree)	18.33	1	5	2	3	1	2	4

Note. Group 3: Most of Group 1 was in Group 3 with one new member as reflected by only one new response for motivation and duration of learning. Group 7: Two participants answered multiple reasons leading to the total number of responses to be more than the total number of participants.

Table 3.2

CSL Learners' Participant Group Profiles

Group & Target Language	Location, University & Course	Average Age	Gender (number in group)		Married into Croatian family	Family heritage	Motivation			Duration of learning the target language/ knowledge of the language		
			Male	Female			Travel	Teach own children	Interest in similar language (Serbian)	Previous study	Small amount of knowledge from social interaction	None/Little knowledge
Group 2 CSL	Sydney, Macquarie University, Diploma	21.88	4	4	2	5	0	1	1	1	1	5
Group 4 CSL	Sydney, Macquarie University, Diploma	20.83	4	2	0	0	0	0	0	0	0	0
Group 6 CSL	Brisbane, UQ, Adult beginners course	29.66	1	2	0	3	0	0	0	0	1	2
Group 8 CSL	Brisbane, UQ, Adult beginner course	20.5	2	4	2	2	1	0	2*	0	0	6

Note: Group 4 contained the same participants less two members. For this reason the information regarding motivation and duration of learning is not repeated. Group 8 & Group 2: one participant cited two reasons for their motivation leading to the total number of responses to be more than the total number of participants.

The ESL and CSL learners were recruited to participate on a volunteer basis. They were presented information describing the study by their lecturer or the researcher and were asked if they wished to participate. Written consent was provided by each university's ethics committee and by each participant. In the circumstance that a class contained more SL learners who volunteered than their partner class, then the SL learners from that class were randomly selected to participate by drawing names from a hat. The SL learners who were not chosen to participate in the study during Treatment Period 1 were provided work on a Moodle (<http://moodle.org>) platform. The activities on Moodle were created in collaboration with the class lecturer. During Treatment Period 2 and Treatment Period 3, it was not necessary to provide work to non-participating class members as the participants met online during their own personal time to complete the task work which did not interrupt usual class activities.

The CSL participants from both Macquarie University (Treatment Period 1 & 2) and the University of Queensland (Treatment Period 3) generally selected to study Croatian for personal reasons and not reasons relating to employment. One of the main personal reasons was that they came from a family with one or both parents having been born in Croatia. Some participants had learnt basic Croatian growing up and wanted to improve their abilities or they did not learn the language when they were young and wanted to learn Croatian as well as more about their cultural background. Some of these participants aspired to visit Croatia and speak Croatian with their relatives. The other main reason they chose to study Croatian was due to a partner (boyfriend/girlfriend/husband/wife) having Croatian heritage or being born in Croatia. These participants wanted to learn more about their partner's culture as well as learn Croatian to speak it with their new family members. Occasionally the participants wanted to learn Croatian as they visited Croatia as a tourist and wished to visit again and speak with the locals in Croatian.

There was difficulty in finding SL learners to participate from the University of Split in the 18-35 year age bracket who were studying English at a similar level as those studying Croatian as all of the ESL participants had studied English as a compulsory subject previously at high school, primary school, or both. English lecturers at the Arts Faculty at the University of Split provided the researcher with access to the English classes to recruit participants. The English lecturers agreed to their students participating in the study during their own personal time but indicated

that they were unable to alter their current ESL program. As the initial implementation plan was to have the participants complete the facilitation techniques during class time, this arrangement was not suitable. A lecturer of English at the Law Faculty heard about the study and offered to involve her ESL students during their English class time as long as the facilitation technique used focused on the required course content for her students. Her students were studying ESL as an elective as part of their law degree. Their English abilities were at an intermediate to advanced level (CEFR standards: B2 & C1) with the main focus of the class being on developing their English for legal purposes. At the request of the lecturer, the English content was altered to incorporate necessary components of the Legal English class (see Section 3.4.4 for content modifications to facilitation techniques). The pre-test and post-test were also modified to focus on the new legal English content for the ESL learners (see Section 3.7.2.5 for test development). During Treatment Period 3, ESL learners from the University of Mostar joined the study. The participants from the University of Mostar learn English as part of the Australian equivalent of a Bachelor of Arts course or as an elective as part of another course. The lecturer from the University of Mostar advised at the beginning of the study that the ESL learners participating in the study were beginner level students operating within the CEFR A1 and A2 levels (Anđjelka Raguz, personal communication, February 21, 2010). Each of the lecturers who taught the ESL or CSL participants assisted in the administration of the study and occasionally provided feedback relating to the administration of the facilitation techniques or the structure of the tasks. One lecturer assisted from each university.

3.2 Research Approach

The researcher's approach to this study is heavily influenced by Vygotsky's (1978) concept of the ZPD. Vygotsky's work has been referred to by different authors to support variations of concepts of how knowledge is created (Rowlands, 2000). The perspective taken by the researcher is considered as Vygotskian and not Neo-Vygotskian, radical or broadly social constructivist and is demonstrated by Rowland's reference to a quote made by Rosa and Montero (1990, cited in Rowlands, 2000) of Vygotsky:

The regularity in the change and development of ideas, the appearance and death of concepts, even the change in classifications, and so forth can all be

explained scientifically based on the connection of the science in question with (1) the Socio cultural substratum of the time, (2) the general laws and conditions of scientific knowledge, (3) the objective demands the nature of the phenomena currently under investigation make on scientific cognition (p. 64).

From this perspective, emphasis is placed on theory coming before academic research. Using Vygotsky's ZPD as a research methodology as discussed by Rowlands (2000) guided the researcher to consider the current body of research as metaphorically similar to students in Vygotsky's discussion of the ZPD where he explains the various levels of understanding and skills presented in a learner, that is, the independent knowledge of the student and the knowledge and skills that the student can achieve when problem solving with a more capable person within the ZPD. The literature review represents the current body of knowledge relating to the focus concepts used in this study (representing the independent knowledge of a learner, and in this case, the independent knowledge of the field in respect to SL education) with the study conceptually exploring learning within the next theoretical and conceptual developmental step. The study is an investigation of the learners' next developmental step and what is possible. It is an exploration of the conceptual ZPD of research in this area and how learners may learn in their ZPD when working in virtual and online environments. The theoretical framework on which this study is based specifically identifies the need to explore the issue of facilitating learners' listening comprehension development within their ZPD for SL learners who reside outside the country where their target language is spoken natively. Methods and learning tools selected for exploration were those identified with the potential to assist SL learners in preparing for communicating with native speakers of their target language. The facilitation techniques developed as well as the tools used needed to allow for flexibility as the more significant peers continually assessed and adjusted the learning according to their partners' ability, for example, extending conversation. The literature review demonstrates a need to consider a developmental step for SL learners between listening as students in a SL classroom to trying to communicate with native speakers of the target language. This study focuses on finding ways to cater for this developmental gap in SL education by utilising online tools. The learning spaces in which a variety of online tools can be used to assist learners are outlined on the continuum of language learning spaces (see Section 2.4.4).

A mixed methods approach was taken to address the key research questions. The literature review identified mixed method approaches incorporating interviews and pre-testing and post-testing as a commonly used effective method to research language themes (see Section 2.4.2 for methodological considerations). Delva, Allen-Meares, and Momper (2010) asserted that mixed methods research is an important and increasingly popular method for cross-cultural research. The mixed methods design used in this study resembles what Creswell, Clark, Gutmann, and Hanson (2003) describe as a triangulation design: convergence model in that both qualitative and quantitative data are collected together and compared with an interpretation of the data provided utilising both data sets. Each process explored a different focus. The qualitative data set was given priority in describing the participants' experiences, their perceived affordances of utilising the learning spaces and the features of the online tool (as created by each online tool: Second Life and Skype), and identifying the strengths, weaknesses and potential for using the learning spaces. The qualitative data contributed to the analysis of what each learning space offered SL learners and the key characteristics of the learning space. It also provided interpretations of the effectiveness of utilising the learning space for listening comprehension development. The quantitative data was used to explain the effect that using the facilitation techniques in these learning spaces had on the participants' performance when measured by a listening comprehension test. This data was utilised to build on the qualitative results and discussion. The data was collected concurrently as commonly used with triangulation. By investigating the participants' perceptions as well as the effectiveness of the facilitation techniques, the researcher aimed at developing a more in-depth perspective into using the learning spaces created by Second Life and Skype for facilitating listening comprehension. Triangulation of the results offered the researcher an opportunity to study the phenomena from multiple sources of information and perspectives. This led to a deeper understanding of the concept studied (Creswell, Clark, Gutmann, & Hanson, 2003).

3.3 Research Design

The duration of the study was three years. In the first year, the conceptual framework was developed and grounded in the literature review. The facilitation techniques and research methods were designed. Consultation occurred with key lecturers from Macquarie University and the University of Split who provided

support relating to translations and test development. Data collection instruments were created and translated with participating lecturers checking translations. From October until December in 2009, the researcher visited the University of Split in Croatia to find a suitable lecturer to assist in the facilitation of the study in 2010. During the visit, the study was discussed with lecturers of English from multiple faculties where English is taught. The lecturer of English from the Law Faculty who volunteered to have her class participate during class time stipulated that the facilitation technique needed to contain content that was relevant to the course curriculum. The relevant changes were made to the content of the facilitation technique for this group. The lecturer was provided training in the administration of the pre-test, post-test, and interviews. Technological resources were organized, such as ensuring headsets worked and downloading and installing Second Life and Skype in the faculty computer labs. The lecturer was also provided training in how to use the online tools. The Croatian school year is from September until June which meant that the ESL learners enlisted to participate in the study in November 2009 were the same ESL learners available in March 2010. The researcher presented an overview of the study to the English class and collected ethical agreements. In the second year, Croatian language experts from the University of Split, Macquarie University and from a Victorian community school analysed the pre-tests and post-tests and provided advice as to whether the tests measured what they were designed to measure at the correct level. ESL learners from Macquarie University were enlisted and Treatment Periods 1 and 2 occurred with data being collected. In the third year, the participants from the University of Queensland and University of Mostar were enlisted with ethical agreement collected by the lecturers of the classes. Treatment Period 3 occurred and data was collected and analysed. After that, all data was analysed and compared in relation to the research questions.

The research design did not include a control group as the majority of CSL students at Macquarie University were not achieving communicative competence on completion of the diploma course. The Head of Croatian reported that the CSL students were developing reading and writing skills but their listening and speaking skills were at a beginner level on completion of the diploma course with many students finding it difficult to participate in a conversation with a native speaker of Croatian (L. Budak, personal communication, March 21, 2009). The lack of skill in this area demonstrated that maturation was not an intervening variable. Maturation

relates to the natural development without intervention that may occur in a learner as time passes. It also demonstrated that the teaching methods used in the course were not assisting CSL learners in developing speaking and listening skills. The decision was made to focus on comparing two different types of learning spaces created by Second Life and Skype to gain greater understanding into their potential for learning.

An identified difficulty for the research timeline was the differing universities' semester dates. For this reason, the study was not for the total number of weeks in a typical semester but for five (March – April, 2010) to eight weeks (October – December, 2010 & April-June, 2011) duration when both sets of participants were studying at the same time. Due to the participants in the project living in three different countries, timetabling of treatment sessions was an important organizational consideration. Another timetabling consideration was the type of enrolment and typical study patterns of the participants at each of the four universities involved. In Croatia, the ESL class that participated took place during the day whereas in Australia, the CSL participants studied through distance education from home or on campus with classes scheduled for the evenings after Australian standard work hours (9am - 5pm). As the time zones in Croatia and BiH are 8-10 hours behind Australian time (depending on summer and winter time), it was the difference in timetabling patterns in the ESL and CSL courses that was advantageous and enabled students to meet online during their scheduled class time. For example, the CSL 6pm class in Australia coincided with ESL 8am class in Croatia. When the facilitation technique tasks became a homework activity, all participants were able to organize the time that suited their pair-group the best to meet during the week.

The design incorporated a pre-test followed by the treatment period and then a post-test. In-depth interviews were conducted with the participants following the post-test. The participants were asked to provide email reflections during the treatment period. Based on the underlying research approach and pedagogy behind the facilitation techniques, it was necessary to pre-test the participants to ascertain their ability level before commencing the facilitation technique tasks and ensure that the content was aimed at an appropriate level, that is, that the tasks did not contain too many learning experiences which the participant had already achieved the required skills for and could demonstrate independently, that the content was not too advanced and that the tasks could be aimed to provide learning experiences for

participants to work with their native speaking partners within their ZPD. If the tasks were too simple or advanced for any participants, then adjustments were made to the curriculum. The post-test was included in the design as a means of gaining more information on the influence the facilitation techniques had on the participants' listening comprehension development. The results from the Second Life facilitation technique were compared with the results from the Skype facilitation technique. The comparison was made to ascertain whether one facilitation technique utilising one learning space demonstrated greater effect on the participants' gains than the other treatment. To gain deeper understanding of the effectiveness of tasks for developing listening comprehension, the suitability and the affordances of the learning spaces for the tasks, the participants were asked to write reflections on their learning after they completed each task to ensure that key points were not forgotten over time (Pearson, Ross, & Dawes, 1994). Lecturers who assisted in the administration of the study offered their insights through either email reflections or discussions with the researcher as recorded in the researcher's observation notes. As a result, these were included in the research design. To investigate the affordances of the selected tools for listening comprehension development, the participants were asked during in-depth interviews to offer their perceptions of the affordances of the online tools and the effectiveness of using them for developing listening comprehension. The participants' perceptions of the affordances of tools can be different from the actual affordances of those tools (see Jenkins, 2008, for an in-depth discussion on affordances). Utilising multiple perceptions of the affordances of the online tools used provided greater depth of understanding of how each online tool can be used for developing listening comprehension and which online tools are most suited to particular listening development tasks. Table 3.3 demonstrates the number of treatment periods in the study and the number and type of groups involved in each treatment period.

Table 3.3

Overview of the Participant Groups in All Treatment Periods

Treatment Period 1 March-April, 2010	Treatment Period 2 October-December, 2010	Treatment Period 3 (contained 4 groups & investigated 2 facilitation techniques) April-June, 2011	
Second Life facilitation technique	Skype facilitation technique	Second Life facilitation technique	Skype facilitation technique
Group 1: English	Group 3: English	Group 5: English	Group 7: English
Group 2: Croatian	Group 4: Croatian	Group 6: Croatian	Group 8: Croatian

3.4 Facilitation Techniques

3.4.1 Development and Structure of Facilitation Techniques

The methodology used in the facilitation techniques was based on the view of language learning that focuses on language use for social action and purpose (Council of Europe, 2001). As explained by script theory, language as well as all knowledge related to a situation is stored and organised as a schema and scripts for that situation (Nishida, 1999). In the *CEFR* (Council of Europe, 2001) situations and contexts of language use are grouped into domains. A minimum of four domains is identified: personal, public, occupational, and educational. A context or circumstance may relate to more than one domain at one time. The *CEFR* contains guidelines outlining proficiency levels (A1, A2, B1, B2, C1, & C2) for production and receptive skills for language use for communicative purposes relating to the domains. The levels can be utilised to assess language ability and plan for language learning. The *CEFR* guidelines were used to assist in the development of tasks and assessment of listening ability. The *CEFR* asserts that language educators and curriculum designers should not simply choose language tasks from a previously constructed generic curriculum for all SL learners, but they need to apply their own creativity and professional judgement in their selection. The selection, adaptation, or creation of tasks should be based on the particular cohort's motivations, characteristics, needs and available resources. For example, the motivations, assessment demands, characteristics and resources available for learners of Croatian at a diploma level in Croatia are quite different to those of students learning Croatian in Australia. It was observed that the students studying Croatian at Macquarie and UQ generally do so for personal reasons with the aim of being able to communicate effectively with family and friends and others in social situations, and in day-to-day life

circumstances while on travel in Croatia, whereas those who study Croatian in Croatia at a diploma level are usually doing so for employment reasons.

The *CEFR* (2001) suggests that when organising tasks a general approach to learning should be considered and documented in relation to the following key considerations: (a) how SL learners learn; (b) the roles and expectations of the SL learners in the process; (c) the role of the teacher and media; (d) the role of texts; (e) the importance level placed on communicative strategy and abilities; (e) the role of other competencies such as cultural knowledge; (f) personal learner differences; (g) the question of whether study skill development will be explicitly included; (h) linguistic competency development (e.g., grammar, vocabulary, control over vocabulary, range of vocabulary); (i) orthography; (j) pronunciation; (k) grammatical competencies and the type of formal exercises included (e.g., multiple choices, gap-filling, and translation); (l) sociolinguistic competency development; and (m) pragmatic competency development. Aside from theoretical perspectives relating to how SL learners develop listening comprehension in a SL, the assumptions relating specifically to the listening comprehension facilitation techniques are as follows:

1. The role of the SL learners was that of active participants. Although listening is a receptive skill, the participants were required in the tasks to participate actively by either responding appropriately to what they heard as part of the conversation or by completing an action based on a direction or description they listened to. The participants were required to process listening comprehension and produce spoken texts or written mapped responses to the spoken texts. For example, the native speaking participants read directions to their partners who then step by step were required to record their directed path on a map until they reached their final destination. The participants were required to prepare for their weekly tasks as set out in the *Developing Listening Comprehension: Tasks in Second Life Participant's Manual* (see Section 3.4.2 for an overview of the tasks). Preparation included activities such as reading through the tasks, learning vocabulary related to the themes, and preparing questions and answers to questions.
2. The lecturers' role was to invite their students to participate in the study, explain the main aspects of the study as part of the invitation to participate and collect ethical agreement from the participants on behalf of the researcher. During

Treatment Period 1, the lecturer also assisted in the administration of the pre-tests and post-tests. In Treatment Periods 1 and 2, this was not required because all testing was completed online. The role of the researcher was not as a lecturer of the participants but as an observer and facilitator of the participants' listening development by creating and guiding the implementation of tasks and assessment. The role included assessing the participants' abilities by providing the pre-test and post-test, planning for learning, selecting, modifying and creating appropriate tasks for those who receive higher than 80% on the pre-test (see Section 3.4.4. for content modifications), facilitating progress through set tasks, providing guidelines for reflections, and evaluating appropriateness of the facilitation and data analysis methods.

3. The main role of the computer was to mediate communication between the participants by accessing the Internet and using selected online tools and authentic materials. For example, in Task 8 in both the Second Life and Skype facilitation techniques the participants used a news website containing a weather report. They watched the weather report through their Web browser and then returned to their meeting with their partner in Second Life or Skype to discuss what they had viewed.
4. Instructional media and text resources were used to assist the achievement of an instructional aim. For listening to weather reports, an online video of a weather report in the target language was used. Written texts were used as a reading tool to prepare the participants for interacting and listening in their target language, for example: (a) written questions were provided in preparation for verbal communication; (b) descriptions were provided for the participants to prepare and practise what they will read to their partners as directions; and (c) lists of key vocabulary for use during tasks. The texts assisted to add depth to discussion and when possible authentic materials were used. Texts were presented in Croatian and English. During tasks, texts were presented in the target language. Pictures, maps and screenshots were utilised in the participant's manual, for example, during the Skype facilitated tasks a map of a city (section of Zagreb) was used for listening to directions, screenshots were used of online shopping catalogues to discuss clothing preferences, and pictures of a scene were utilised for a descriptive

task.

5. Cognitive strategies were planned for in the tasks as they were structured around top-down strategies that utilised themes and cognitive scripts to assist the participants in organising their learning. Bottom-up strategies were planned for as part of task preparation through vocabulary building and exposure to grammar structures (see Section 2.3.2. for theoretical perspectives on the use of strategies for listening comprehension). The participants were asked as a post-listening task to self-reflect on the strategies they used during their task sessions with their partners. They were asked to record their reflections on the strategies they used in the learning space in which they were working when they could not comprehend the dialogue. They were also asked to evaluate the task itself for learning and the use of the online tool for learning. The reflections were emailed to the researcher. Reflection of strategy use was designed to assist the participants to meta-cognise their actions and subsequently plan for future strategy use. The participants in the first treatment period participated in the reflection as a group activity in the classroom immediately following the task.

6. Cultural knowledge was viewed as playing an important role in language learning. The participants learn their target language for real world related purposes. In the real world, as opposed to the classroom environment, the participants listen to language for reasons that are not related to linguistics. They listen to achieve an action-orientated purpose (Ur, 2007). To assist the participants' emotional connection to the content and motivate their learning, authentic resources were used in tasks where possible (Chen & Brown, 2011). For example, online menus from real restaurants in Australia (<http://www.webmenu.com.au/sydney>) and Croatia (<http://www.arkada.hr/restoran/hr/meni-restorana-u-splitu/meni-karte-restorana-arkada>) were used for both the Second Life and the Skype facilitation tasks. The Australian online menu guide provided the participants who were interested in Australian culture with an opportunity to view the variety of dining choices and cuisines available in Australia. The selection available in Australia is quite different from the variety available in Croatia. The tasks in Second Life utilised 3D virtual representations of cities where the target language is spoken in real-life. Virtual Zagreb and virtual Dubrovnik were used for the Croatian tasks. A

virtual Australian location which contained aspects of Sydney and a virtual representation of the University of Western Australia were used for the English tasks. These locations offered the participants a context to develop their language and listening comprehension. It was assumed that learning in these contexts would assist the participants to learn more about the culture from visual cues while assisting the participants to engage with and store mental schema and scripts relating to the theme. For example, the tasks for the theme 'At the Café', took place at a café in Second Life. The participants immersed into the virtual environment and partook in tasks in the café context. Sociolinguistic competence was viewed as important with the facilitation technique including native speakers and authentic materials.

7. The participants' various learning styles and preferences were catered for through the inclusion of the study into each course's main curriculum. The main curriculum in each language class at each location mainly used tasks that focused on reading and writing text from assigned textbooks; although speaking and listening did occur in the classroom it was focused around textbook content. The learning spaces used in both facilitation techniques provided opportunities for visual and aural learning. Second Life offers spatial learning features as objects appear in three dimensions in the virtual world. Avatars are able to move around the virtual space and enjoy environmental cultural artefacts and print such as posters on polls in streets advertising music concerts. Music from the target culture was also played in some locations. When Skype was utilised, the learning space contained less media and cultural artefacts although they were accessed through the Internet as planned for in tasks. A variety of visual texts, such as pictures, maps and videos were included as key resources in Skype tasks. The participants who preferred engaging with others face-to-face could access direct facial expressions in the Skype tasks. Introverted as well as extraverted participants were provided the same opportunities to actively contribute as the tasks occurred in pair groups. Often in larger groups introverted learners can miss out on opportunities to practise their language as the extraverted learners may dominate class discussion time (Omale, Hung, Luetkehans, & Cooke-Plagwitz, 2009).

8. Skill development was planned for within the participants' ZPD. If the participants achieved between 80-100% accuracy on the pre-test, they were identified and their content for tasks was modified accordingly (see Section 3.4.4 for content modification to facilitation techniques). As the participants were enrolled in formal courses with set curriculums at their universities, the modified tasks needed to satisfy the requirement of each curriculum while also providing interesting extension work.
9. Assessment was used to assist in planning for teaching. It was viewed as an instrument to inform educators of the participants' ability levels prior to beginning the treatment period and after all tasks were completed as a measurement of their progress.
10. Linguistic competency development (e.g., grammar, vocabulary, control over vocabulary, range of vocabulary) took place in the classroom with the lecturer of the language course as the study was designed to complement objectives of the participants at each institution.
11. As the focus of the facilitation techniques was on listening comprehension, pronunciation development was not directly planned for as part of the facilitation techniques. Pronunciation was developed in class with the participants' lecturer as well as incidentally with the participants' partners when they participated in communicative tasks.
12. Grammatical competencies were mainly programmed for during class time with the SL course lecturers. Facilitation technique tasks were based on the same focus structures as the curriculum and allowed the participants the opportunity to practise using the knowledge and skills they were developing in class time with their native speaking partners during their pair group meetings. For example, when the participants were developing their knowledge of and ability in using genitive prepositions in Croatian or prepositions relating to relative position in English, they used textbooks and objects in the classroom to make such comparisons using the target language. In the facilitation techniques the participants were required to complete an action using the prepositions as part of a

task as in Task 3 where the participants were required to find objects by listening to descriptions of their relative location to other objects (see Section 3.4.2 for an overview of Task 3 using Second Life and Section 3.4.3 for an overview of Task 3 using Skype).

The method used in this study was constructed for SL learners who do not reside in the country where their target language is natively spoken. In this circumstance, SL learners often have limited access to native speakers of the target language with limited domains where they can communicate in the target language (Jin & Erben, 2007). Learning spaces such as those found in virtual worlds can closely resemble real locations in the target country as they contain: opportunities to interact with native speakers; target language environmental print and sounds; and cultural artefacts. They provided the participants with culturally and linguistically rich opportunities to learn to listen and communicate in their target language. Interacting in a virtual environment prior to visiting a real location may assist the participants with reducing anxiety and culture shock once they arrive in the target country as they have already ‘virtually’ been to the location and have a sense of familiarity with aspects of the real location. When the participants are less anxious, this improves their openness to communicate and listen effectively in the target language (Jones, 2008).

Second Life and Skype facilitation techniques were utilised; each involved pre-listening, listening with communicating and post-listening activities. The main communicating and listening tasks required the participants to have conversations about selected themes. Each week focused on a different theme, for example, ‘Greetings and Introductions’. The themes were determined by the content focus of the course. Once the content focus was ascertained from the lecturers of the courses for the treatment period, each theme was considered for the types of real-life circumstances and conversations that may take place around the theme. The affordances of the learning space created by each online tool were considered and tasks were developed which utilised aspects or features of the space if possible. The lecturers reviewed the tasks and provided feedback. Although pre-listening and post-listening activities were part of the facilitation technique, the investigation focused on the participants’ listening comprehension development and their experience communicating in the various online spaces. Facilitation technique A utilised the

virtual world Second Life to create a learning space whereas facilitation technique B utilised the online communication tool Skype to create a learning space.

At the beginning of each treatment period (following the pre-test), the participants were provided a copy of all weekly tasks via email presented as a portable document file (see Appendices D, E & F for examples of the participant's manuals). Each week focused on a different theme with key vocabulary and grammar structures to learn. The participants were randomly placed into pair groups. For Treatment Period 1 (Second Life facilitation technique and Treatment Period 2 (Skype facilitation technique), the CSL participants from Macquarie University were paired with the participants from the group learning English at the University of Split. The same pair groupings were used for all tasks and the partners were not changed unless a participant dropped out of the study and another volunteer was available. Groups met for a stipulated minimum time of one hour a week. The participants were given the opportunity to communicate each week in their target language. The hour block was segregated into two sections: 30 minutes was designated to communicating in Croatian and 30 minutes was allocated to communicating in English.

3.4.2 Overview of the Second Life Facilitation Technique

The continuum of language learning spaces provides an overview of a range of learning spaces from the participants' personal learning spaces to living in the target country. Virtual learning spaces, and in particular virtual worlds, are considered on the continuum to facilitate the most similar experience for a learner to living in the target country. The Second Life facilitation technique attempted to take advantage of the context while facilitating the participants' listening comprehension. The virtual context that represented the themes of the tasks was used to assist the participants with accessing and developing their schemata in relation to the focus themes, for example, when learning about shopping the participants visited a virtual shopping mall.

The facilitation technique began with the participants receiving a two hour training session on how to use Second Life. In this session, they received the *Introduction to Second Life Participant's Manual* (see Appendix D) to assist them with learning the key skills required to be able to: (a) utilise the walk, talk, message and teleport functions; (b) find and meet with a partner; (c) find a location; (d) alter

the appearance of their avatar; and (e) clear their cache (to assist with speed of movement). The participants were instructed to create a username that was not their own name. It was to be an alias for Internet safety. Their alias names were then used from that point forward for contact with their partners.

The participants were then given the *Developing Listening Comprehension: Tasks in Second Life Participant's Manual* (see Section 3.4.2 for an overview of the tasks). The tasks using Second Life began with the researcher meeting the participants in Second Life for the purpose of organising pair groups. Once the participants had logged onto Second Life, the researcher sent a teleport invitation which, when accepted, teleported the participants to the researcher's chosen virtual location. The action of teleporting is to move an avatar from one location in a virtual space to another location within seconds. When the participants' avatars arrived at the meeting location they were welcomed. The initial meeting location was 'Celebrity Island' which was a reproduction of Zagreb, Croatia. The participants were then informed as to who their partner was and instructed to send their partner an offer of friendship which once accepted allows the partners to be easily located during following sessions. The participants found their partners in the group and then wandered around Zagreb (Second Life) for the first half hour and then Sydney (Second Life) for the second half hour and completed the weekly tasks. For Treatment Period 3 (Second Life facilitation technique), a replica of the city of Dubrovnik was used for the initial meeting as Celebrity Island (Zagreb) had disappeared off the Second Life's virtual grid/map. This is a negative aspect to using virtual locations created by other residents. The content may change at any moment without notice unless the educator or researcher is the owner of the content and can determine what is on the virtual map (Cooke-Plagwitz, 2008).

There were three versions of content used throughout the study presented depending on the treatment period and ability level of the participants: (a) Beginners Level 1 in English and Beginners Level 1 in Croatian was used for Groups 2, 5, 6, 7 and 8, (b) Beginners Level 2 in English and Beginners Level 2 in Croatian was used for Groups 3 and 4 (see Appendix E: *Skype Participant's Manual: Beginners Level 2* for an overview of the tasks), and (c) Legal English which was an advanced level was used for Group 1. The most used content set for the facilitation techniques, Beginners Level 1 in English and Croatian (Groups 5, 6, 7 and 8) will be outlined in this section to demonstrate how the facilitation techniques utilised the learning

spaces. Group 2 used the first five themes in this content set as the first treatment period lasted five weeks. A brief overview of the other content sets (Groups 3, 4 and 1) is provided in Table 3.6 in Section 3.7.2.5.

There were a total of eight weeks of tasks. The themes for these weeks were as follows: (a) Greetings and Introductions, (b) Following Directions, (c) Objects Hunt, (d) Describing Objects, (e) Shopping Trip in Second Life, (f) At the Café, (g) Media Session (weather report and a current news item), and (h) Describing an Event. The themes were similar to work being covered in the Croatian language classes and were consistent with themes covered in the *CEFR* and EAQUALS Can Do SIP: EAQUALS/ALTE Portfolio Descriptor Revision – General: EAQUALS Bank as checklists - Dec 2008 levels A1+ and A2 (see Appendix B for the adapted Checklist of Listening Activities and Related Content/Themes CEFR Levels A1+; A2; A2+ and B1).

The first task was Greetings and Introductions. The activities in this task did not require the participants to use much of the environment's virtual space to be able to answer the stipulated discussion questions. The virtual space simply provided the cultural backdrop for the conversation. The focus of this session was to practise participating in a first meeting with an unknown person and listening to and comprehending a native speaker of the target language. The participants also became familiar with communicating and participating with their partner in Second Life. Once they had completed their task, they were able to explore the physical space where the target language was displayed on signs, posters and in shop windows. The general focus vocabulary and question examples included but were not limited to: (a) a greeting; (b) Who are you?; (c) What is your name?; (d) What do you do? What is your profession?; (e) How are you?; (f) Where are you from?; (g) Where do you live?; (h) Do you have a brother or sister?; (i) What do you do in your free time?; and (j) Do you play a sport? Related answers were provided for practice in the participant's manual.

Task 2 required the participants to follow simple short directions. The main vocabulary focus was on prepositions relating to relative location such as: (a) under, (b) above, (c) next to, and (d) directions such as walk eight steps to the right and turn left. In the week prior to the task, the participants were sent a list of instructions that they were required to read to their partner during the task in their partner's target language. Pair groups met at a designated location. This location was provided to the

groups using a Second Life uniform resource locator (SLurl). A SLurl is an Internet address that can be used as a direct teleport link to a specified location. One of the SLurls used in the task was <http://maps.secondlife.com/secondlife/Distant%20Shores/48/192/22>. Once the participant clicked on the supplied link, their Internet browser opened the teleport page. The participants then clicked on the ‘visit this location’ tab and their Second Life browser automatically opened. They were then prompted to log in and Second Life opened the viewer at the correct specified location. The screenshot in Figure 3.1 is the location where an avatar would have landed if the example SLurl provided earlier was utilised.



Figure 3.1. Example of a Second Life virtual location.

One week prior to the task, the researcher checked that the link was still active and that the location had not been altered by its owner in a manner that would hinder with the directions provided in the task. The participant was required to listen to a set of directions, understand them accurately, follow them and arrive at a specific location. Once both partners were in Second Life, the ESL participant (native Croatian speaker) read the first direction to the CSL participant. The CSL participant followed the direction and moved to the location he/she believed he/she needed to be at. The native speaker then read the next provided direction. This process continued until all directions were followed. The CSL participants were instructed to make a written record of the final location they arrived at and the object they were near. The final record was submitted to the researcher to ascertain whether

the participants had followed the directions correctly. The task occurred in both languages allowing each partner to have the opportunity to listen to directions in their target language.

The third task entailed a Second Life objects hunt. The task focused on similar grammar structures and vocabulary as the previous task. The participants were expected to locate a variety of objects in a specific location. For the English learning task, the participants were asked to meet at the University of Western Australia campus in Second Life and were provided pictures of objects. They were required to find these objects together and discuss them and their relative location to other nearby objects in their target language (e.g., the blue box is in front of the tree). Once again, it was important for the researcher to check the Second Life location the week before the task to ensure that all necessary objects were still available in the same location.

Describing objects was the focus of the fourth task. The participants were instructed to visit a specified location and describe the objects they saw around them. The task required knowledge of familiar objects' names and adjectives to describe them (e.g., colours and size). The participants also needed to be able to recognise the grammatical structure for using adjectives in a sentence (e.g., in Croatian the gender of the adjective must be the same as the gender of the noun). The task began with the native speaker of the target language describing an object; for example, "It is blue and you can sit on it. It is between the green tree and the red box." The participants were required to find the object and create an identifying statement about the object; for example, "It is a blue chair". The main focus was on being able to accurately comprehend the description by listening to the native speaker.

Task 5 was a shopping trip in Second Life. Descriptive words were revised in this task. The participants were provided with the SLurl for a shopping location titled 'Le Look' in Second Life (<http://maps.secondlife.com/secondlife/LE%20LOOK/168/127/22>). The location contained a variety of men's and women's clothing stores (see Figure 3.2). It was explained to the participants that as the shop was a public shopping centre, other shoppers or sales assistants may be at the location at the same time as they were there. The participants were required to complete the task in Croatian for the first half hour. To ensure that the content remained interesting, a different shopping location titled 'Emu Group Fashion' was utilised for the English half hour. The

participants could choose to enter any of the stores and were instructed to discuss the products for sale, that is, clothes, shoes and accessories. The participants discussed in their target language the colour and price of items and which clothing pieces they liked or disliked.



Figure 3.2. Clothing store in Second Life located at SLurl: <http://maps.secondlife.com/secondlife/LE%20LOOK/168/127/22>.

At the Café was the thematic focus for the sixth task. The participants were emailed a copy of a Croatian and an English menu the week prior to the task. The SLurl (<http://maps.secondlife.com/secondlife/Terra%20Toulouse/115/112/28>) provided for this task teleported the participants to a cafe location in Second Life. Utilising the menus provided, the participants took turns being a waiter and being a patron at the café. The participants needed to make an order from each section of the menu including entrée, mains, dessert and drinks. The participant was required to be able to comprehend typical questions asked by the waiter (the native speaker) and to comprehend discussions about standard food choices in the target language. The same process occurred in English using an English menu.

The seventh task was to watch and then discuss two media files in video format in each target language. The participants met in Second Life and viewed the media file through a Web link (please note that it is possible to stream media into Second Life but for this task the media was viewed through a Web browser). Once they completed watching one file, they then discussed the file in Second Life. One media file was a weather forecast and the other was a current affair or news story. The participants were instructed to view news stories that reported on an incident, a family or personal story. Political stories were not used for beginners due to the more advanced vocabulary spoken during such stories. The participants watched each

media clip and then discussed the content in the target language. The discussion allowed the participants to test their listening comprehension of the media clip with their native speaking partners.

The final task entailed describing events. This task was a game. The participants were required to walk around Second Life locations utilised in Task 1 and describe an event that could be occurring in a place in that scene; for example, ‘The waiter is asking the lady what she would like to order for lunch. She is ordering lasagne. The lady is wearing a blue and yellow dress. A dog is sitting beside her chair.’ The listener then needed to guess where in the location the scene described could be taking place; for example: “The lady is in the cafe”. Both participants described events in both languages allowing participants to practise listening to and creating their target language.

3.4.3 Overview of the Skype Facilitation Technique

The participants were randomly paired prior to the treatment period and remained with the same partner for all tasks. They were provided with their partner’s Skype username and instructed to make their partner a contact. At the beginning of each task session, they would log on to Skype and initiate a video chat with their partner. They then followed the designated task for the week. They were asked to be online in conversation for one hour each week. The first half an hour was for learning Croatian and the second half an hour for learning English. The themes for the tasks were the same as those for the Second Life sessions but the tasks themselves often varied due to the different type of virtual learning space being used. In tasks that utilised features of the virtual location in Second Life as a resource, a different form of resource was required for use in Skype. To begin each task, pair groups met on Skype.

The Greetings and Introductions task used the same guiding questions as those that were provided to the participants in the Second Life task for Treatment Period 1. The participants logged on to Skype and took turns asking and answering the guiding questions. Once again, pair groups spoke in Croatian for the first 20-30 minutes and then in English for the next 20-30 minutes. The participants who used this manual participated in Treatment Period 3 and had not met each other previously in Second Life.

The second task focused on simple short directions designed to scaffold the

development of the same vocabulary and grammar features as for the Second Life task. The resources used were different to those used in the Second Life version of the task. In the Skype task, instead of walking around a virtual physical location, the participants were provided with maps of a city location. The participant was provided with a map of only the beginning location. The native speaker participant had the same map but with the beginning and final locations marked on it. The native speaker read directions to his/her partner who pencilled in the journey onto the map as they proceeded through the steps. They marked their final destination with an X. The participants then held up their map to their partner for their partner to ascertain whether they followed the directions correctly or not. If SL learner had not arrived at the correct location, the native speaker then reviewed each step with the SL learner to find their error.

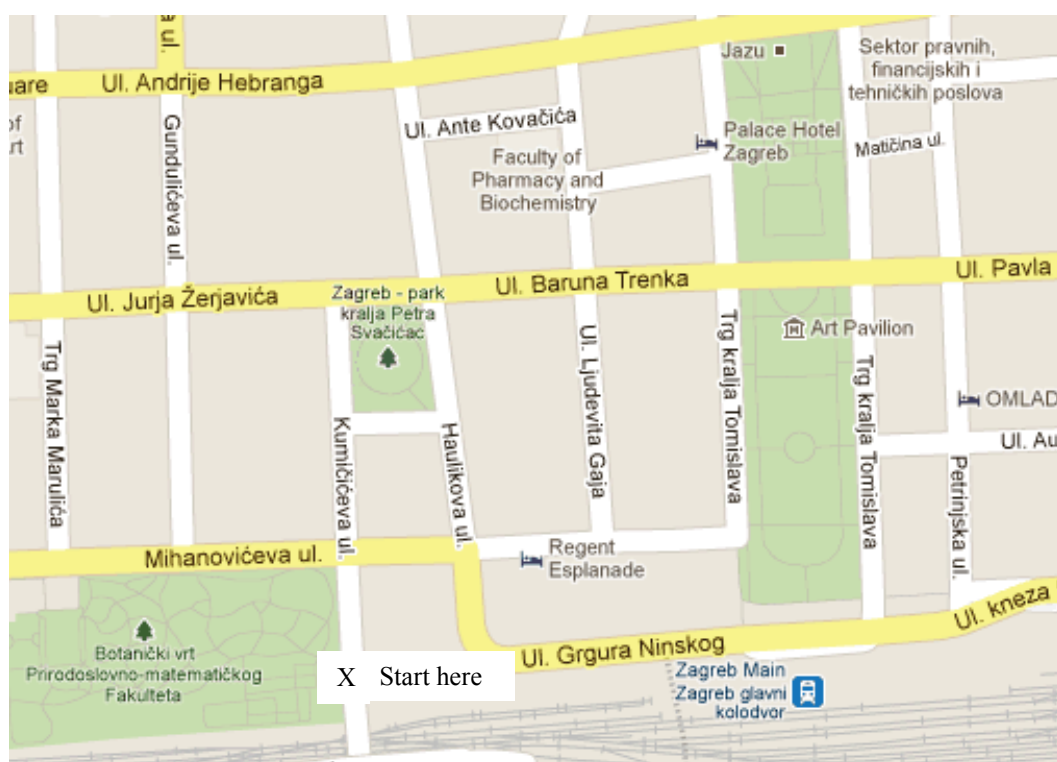


Figure 3.3. Selected section of the centre of Zagreb, Croatia (<http://maps.google.com>)

The third task was an objects hunt. As the participants did not have a virtual environment to walk around and hunt for objects, they were provided with a picture of a room with various objects in the picture. There were two versions of the picture of a bedroom. Both versions had the same larger objects in them, such as a bed,

window and computer desk. Partner A had certain smaller objects in their picture that Partner B did not. For Partner B, pictures of those objects were found on the right hand side of their page. Partner B was required to question Partner A as to where the objects were located. Once the SL participant felt as though he/she had accurately identified each object's location, he/she then drew a picture of the object in that location on the bedroom picture. This type of task is referred to as a barrier game (Herrell, 1999). An example of the process is: the ESL participants might begin by asking in their target language a question relating to the location of one of the objects they needed to find: "Where is the football?". The native speakers (CSL participants) might respond by explaining the relative location of the object to other objects in the vicinity: "The football is in the corner of the room". The ESL participants may then ask further questions such as: "Is it beside the bed and under the curtains located on the right hand side of the window?". If partners were unsure, they were able to ask further questions regarding the object's location. Once the ESL participants believed that they had figured out the location of the objects, they then drew them on their picture. This process continued until all objects were found. The ESL participants were required to ask questions and comprehend the descriptions of the locations of the objects by listening to their native speakers' responses. Once all objects were found, the ESL participants were required to show the native speakers their page by holding it up to the camera. The native speakers then provided feedback as to whether the ESL participants had correctly found the objects or not.

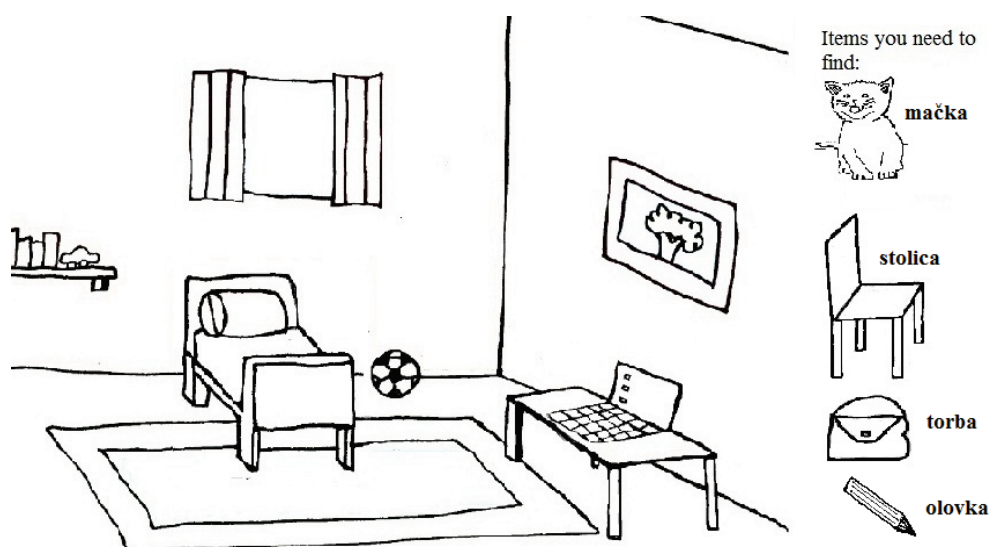


Figure 3.4. Participant's page from the barrier game

Describing Objects was Task 4. The participants were provided with a picture with many different objects in it. The objects were common objects such as a ball, tree or a cup. The native speaker described an object in the picture until the SL learner interrupted with the answer to which object was being described. Some objects shared similar features; for example, two objects were red to ensure that the SL learners needed to listen to more than one descriptive feature of an object to differentiate between similar objects and figure out which one is the target object of the particular description. The game continues until ten objects have been identified or half an hour has expired. If the SL learners identified all of the objects before half an hour had expired then they were able to practise describing other objects in the picture in the target language.

The fifth task theme was shopping. The purpose was to practise describing a variety of clothing items including shoes and accessories. Screen shots of different shopping items were collated from Croatian and English shopping websites or online catalogues. A Croatian shopping PDF and an English shopping PDF were provided to the participants. The participants discussed the shopping articles using descriptive words. They discussed which articles they liked and which ones they disliked and why.

At the Café was the theme of the sixth task. Both the ESL participants and the CSL participants were provided with a link to a menu from a Croatian restaurant which was written in multiple languages including English and Croatian (<http://www.arkada.hr/restoran/hr/meni-restorana-u-splitu/meni-karte-restorana-arkada>). They were also provided a Web link (<http://www.webmenu.com.au/sydney>) to multiple menus from a variety of restaurants in Sydney. The website demonstrates the magnitude of the variety of cuisines available to Australian diners. For the task, the native speakers of the target language were instructed to role-play being waiters while the SL learners' role played being patrons. The SL learners pretended to order a meal including an entrée, main, dessert and beverage. The partners then discussed the menus and dining out where they live in the target language during the remainder of their target language half hour.

Watching a media session was Task 7. The content focus was a weather report and a current news item. The task closely resembled the task in Second Life. The participants greeted one another using Skype. They then watched the weather video link they were provided utilising their Web browsers. The CSL participants

and the ESL participants (native Croatian speakers) watched Croatian weather reports on HRT TV (<http://www.hrt.hr/?id=150>). After watching the weather reports, the native speakers asked the CSL participants questions about the content, such as, “What was the weather like today in Croatia?” and “Will it rain tomorrow?”. The pair then followed the same procedure and watched a current affair news report. Following the viewing, they discussed the key aspects of the news report. The news report was made available at the same Web location as the weather (<http://www.hrt.hr/?id=vijesti>). The task was designed to extend the participants’ vocabulary knowledge and introduce them to more difficult language to comprehend. It is for this reason that once the report was viewed, the team jointly discussed the content as opposed to the native speakers only questioning the CSL participants. For the English half an hour, partners watched an Australian weather report and an Australian new report both located on the Australian Broadcasting Corporation (ABC) Website (<http://www.abc.net.au/news/>).

The final task was describing an event. The focus of this task was to comprehend what was occurring in an event while listening to a description of the event. The participants were provided a variety of pictures. They listened to the native speaking participants describing what was occurring in one of the pictures and were required to select which picture the native speaker was describing. They were asked to wait until the native speaker had completed their description before providing an answer. The task was completed in Croatian and in English using the same set of pictures.

3.4.4 Content Modifications to Facilitation Techniques

The pre-test was included in the methodology to ascertain whether the content presented in the facilitation techniques was at the appropriate level for each participant. The appropriate level required content that was not too difficult for the participants to understand and not too easy that the participants could already comprehend all presented vocabulary and grammar structures. If the content was too difficult, the participants could have become frustrated and anxious during peer conversations. If the content was too easy, the participants could have become bored and disengage during the task (Larkin, 2002). When the participants achieved a result of between 80-100% on the pre-test or between 0%-30%, the participant was flagged for further investigation to ensure that the content and the facilitation technique were

relevant to the SL learners. The negotiation of the modified curriculum occurred with the lecturers of the SL classes.

The *CEFR* (2001) stated that, due to the difficulty in creating tasks at the appropriate level for all SL learners, task design needs to incorporate a flexible approach which allows for tasks to be differentiated based on SL learners' needs. This was achieved in the facilitation techniques by incorporating more difficult vocabulary into tasks for the participants who were advanced learners. Extra language extension tasks were also included for the very able participants, such as the inclusion of discussions about Australian idioms for some ESL participants who were studying at the University of Mostar. When the participants were not confident language users, their native speaking partners were asked to confine their discussions to the exact questions provided in the Participant's Manual.

3.5 Ethical Considerations

Kvale (2007) discusses the need to consider micro as well as macro ethics. Micro ethics deals with the effects the research study may have on the participants. Macro ethics considers the effects the research study may have on the wider population. The micro-ethical issues pertaining to this study relate to: (a) informed consent, (b) anonymity of participants and confidentiality, (c) security of data, (d) benefits to the participants, (e) the consequences of partaking in the study, and (f) the researcher's role in the study. The macro-ethical issues for this study relate to the impact the study's results may have on language learning and teaching in the wider community through the dissemination of results as well as the impact the study may have on how the lecturers who assisted in the study may teach their classes following completion of the study.

After permission from the participating universities' ethics committees had been provided, SL learners were approached at the participating universities and given the option to participate in the study. They were reassured that their participation would not influence their lecturer's or the researcher's opinion of them and their commitment to learning. Either the researcher or the lecturer of the course provided the SL learners with the information sheet and consent form and answered questions relating to the study. The SL learners were informed about all aspects of the study, how the data will be stored and de-identified, processes ensuring confidentiality, and the dissemination of results before being asked to provide their

consent and participate. The SL learners who agreed to participate were provided with the opportunity to withdraw from the study without negative consequences. The SL learners who agreed to participate provided written consent. Their data was de-identified during the study. The lecturers of the participating courses gave the participants a code number that was used on their pre-test and post-test data. The lecturer in Split de-identified the interview data as well as the data for the pre-tests and post-tests for Groups 1 and 3. For the participants from Australia and BiH, the researcher de-identified the data for the pre-tests, post-tests, email communication and interviews. Hard copies of data were stored in lecturers' locked filing cabinets and, when required, posted by priority tracked post to the researcher. Data collected and stored electronically was password protected on the researcher's computer. No other persons had access to the data except when a second rater assisted during the data analysis process.

The participants were informed prior to participation that they may find participating in the study a benefit to their communicative competence and listening comprehension development in their target language and the development of their cultural knowledge and understandings of the target culture. These were considered potential benefits. There were not any identified risks to the participants except for the potential for random individuals to be in Second Life who may interrupt and bother the participants. The participants were instructed under these circumstances to log off immediately and inform their lecturer or the researcher of any incidents that occurred.

For the UQ and University of Mostar groups, a potential risk for the emotional discomfort of the participants was identified as there were CSL learners in the UQ group who were of Serbian background. These CSL learners were interested in learning Serbian and enrolled in the Croatian class because a Serbian adult language course did not exist in Brisbane at the time of the study. The Croatian and Serbian languages are not the same (Franolic, 1980). They contain enough similarities that they are mutually comprehensible. They do contain variations in words, word usage and grammar structures. For example, the Serbian language utilises international words such as '*avion*' (aeroplane) whereas the Croatian language has its own version of this word '*zrakoplov*' (Kačić, 1997). An example of the syntactical differences between the languages is the Serbian use of the conjunction 'da' with the present tense: "Ja ću da pišem". In Croatian the infinitive is

used: “Ja ću pisati” (Kačić, 1997). The University of Mostar is the only university in BiH that is a Croatian university and is supported by the Croatian government. The Croatian language is used at the university. The potential risk was identified when the Serbian participants expressed their fear of remaining tensions between ethnic groups (Croatians/Serbians/Muslim Bosniaks) in BiH and Mostar following the war of 1992-1995 influencing their interactions during task work. To address a few participants’ concerns, this issue was discussed with all participants at UQ before the treatment period began. They were reminded that the course was a Croatian language course and that sensitivity would be needed. The participants who had Serbian heritage were very understanding. One in particular was worried that the SL learners from Mostar may be hostile towards him if he told them where his family were from. The researcher consulted with the lecturer from University of Mostar who reported that the participants from Mostar were generally tolerant of mixed ethnic backgrounds and may even be able to assist with Serbian versions of words. It was advised that themes regarding the war and comments against any group were not included during the task discussions. This information was provided to all participants. The participants were also aware that the course they were enrolled in as well as the treatment group focused on the use of Croatian standard language. The participants were informed that as a consequence of participating in the study the results may influence the manner in which listening comprehension development is scaffolded at the universities involved in the study. On a wider scale through dissemination of the findings, how language learning spaces are considered and utilised may also be influenced by study results. There were not perceived risks on the macro-ethical level.

3.6 Methods of Data Collection

3.6.1 Overview

The participants’ perceptions of the two facilitation techniques (incorporating Second Life or Skype) and the effectiveness of the facilitation techniques were investigated. Methods for data collection for the participants’ perceptions were: follow-up interviews; researcher observation notes; and reflective emails. The instruments utilised to gather data on the effectiveness of the two facilitation techniques were pre-tests and post-tests assessing listening comprehension as well as the researcher’s observation notes. Table 3.4 demonstrates how each research

question is addressed using data collection instruments and analysis techniques.

The interview questions and pre-tests and post-tests were developed by the researcher as both require content specific questions in Croatian or in English. The exception was the pre-test and post-test for Group 1 as these participants were students of legal English. These tests were created in consultation with the lecturer of the class and were based on, or a modification of, similar activities that were used to assist SL learners in preparation for legal English tests at the University of Split. The other pre-tests, post-tests and facilitation techniques for the CSL participants focused on the themes covered in the course textbooks and coursework as part of the standard curriculum. The ESL participants were provided translated versions of the CSL tests and facilitation technique. In the following sections, the pre-tests and post-tests will be discussed first, followed by the reflections and interviews.

Table 3.4
Overview of Data Collection and Analysis Techniques Relating to the Research Questions

Research questions	Data collection techniques	Data analysis techniques
(1) What are SL learners' perceptions of using Second Life and Skype for developing listening skills in their target language?	Follow up interviews, email reflections, & researcher observation notes	The results from the interviews were initially analysed according to consistent themes, mainly focusing on participants' perceptions of the techniques and the effectiveness of the techniques. Identified responses were coded and further analysis for identification of direct quotes for presentation and unanticipated patterns in the results occurred.
(2) What effects does the use of Second Life and Skype as part of a facilitation technique have on the development of SL learners' listening comprehension?	Pre-test/post-test, researcher notes	T-test for the pre-tests/post-tests. Quotations from lecturers were recorded in the researcher's notes and analysed considering themes identified in the analysis of Question 1, 2, and 3.
(3) What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL?	Follow up interviews, email reflections, & researcher observation notes	The results from the interviews were analysed to identify consistent themes relating participants' perceptions of the affordance of the online tools. Identified responses were coded and further analysis for identification of direct quotes for presentation and unanticipated patterns in the results occurred.

3.6.2 Pre-tests and Post-tests

3.6.2.1 Justification of the use of the pre-tests and post-tests

Pre-tests and post-tests were utilized for two reasons: (1) to inform the facilitation of learning and to ensure that learning tasks were at the appropriate instructional level for the SL learners; and (2) to be used in comparison with the participants' post-test results to ascertain the participants' gains in listening comprehension development as a result of participating in the facilitation technique. The data was also utilized to compare the effectiveness of the facilitation technique using Second Life with the effectiveness of the facilitation technique using Skype. The appropriate level for facilitation tasks was considered to be content and skills within their ZPD, that is, to be working within the developmental level that is slightly above what the participant could do alone but was able to achieve with the guidance of a mentor or teacher. The participants' linguistic backgrounds varied in exposure and experience with their target language. The pre-tests were vital to ascertain the participants' entry level when beginning the study to assure that tasks were at the correct level so that the participants had an opportunity to improve their listening comprehension during the treatment period. When the content in the facilitation technique was identified as not having the potential to enable meaningful participation for a SL learner, the decision was made to alter their content. This decision was based on the pedagogical aims and theoretical underpinnings of the study although the change in content altered the potential to use these individual's scores for the quantitative *t*-test comparison.

The post-tests were incorporated into the design to assess the participants' performance as an indicator of the effectiveness of each facilitation technique. The *CEFR* (Council of Europe, 2001) was used as a benchmark and guide for the development of the tests. The post-tests were included to gain insight into the effect of the facilitation techniques and to ascertain whether the participants had achieved a significant gain in listening comprehension development during the treatment period, at their ability level, and utilising the selected learning spaces and facilitation techniques.

Currently in Australia, a Diploma of Croatian language is offered only at Macquarie University in Sydney. The textbook used in participating classes for this study was: '*Dobro došli 1*' (Barešić, 2007) and '*Dobro došli 2*' (Barešić, 2007). There are currently a small amount of resources available for learning and testing

CSL abilities (Skadina et al., 2010). This is a reflection of the political situation in Croatia and for Croatians in the former Yugoslavia over the past 100 years. Croatia gained its independence from the former Yugoslavia on June 25, 1991 that is approximately only 21 years ago. While Croatians were under the governing forces of Yugoslavia, they suffered prejudice for their nationality and use of their language. A generic 'Serbo-Croatian' language was forced in many regions. Croatians are rebuilding their homeland and their resources regarding their history, language and culture (MacDonald, 2001). Due to the lack of resources available, the researcher needed to create the pre-tests and post-tests to match the work the participants were doing in the Diploma. There were two levels: Beginners Level 1 and Beginners Level 2 of the Croatian pre-test and post-test.

There were three versions of the English pre-tests and post-tests. One was used with the Group 1 that focused on legal English. The legal English pre-test and post-test reflected the structure and length of similar tests that the lecturer normally used in class to prepare students which were based on a similar level as the Cambridge International Legal English practice tests (Krois-Lindner, Translegal, & Day, 2008), which the lecturer also used. The lecturer had requested that the content and tests be relevant to what the participants were studying in their course work as the tasks took place during class time. The decision was made to be flexible with altering the content to cater to the needs of the lecturer of English and her participants. The content used in the pre-test and post-test was altered to match the course work completed in the facilitation technique. This decision made it difficult to replicate the Legal English aspects to other English classes. The other two versions of the English tests used in Treatment Periods 2 and 3 were translated versions of the Croatian language pre-tests and post-tests used in these treatment periods. As the tests were based on CEFR standards, they can be used with other classes relating their work to these standards.

If the participants received high marks on their pre-test, they required individualization of the curriculum as the content needed to be relevant. Decisions relating to the participants' needs were made based on the study's assumptions about learning and the purpose of the facilitation technique. All decisions were made based on these assumptions. When the participants scored highly on the pre-test (over 80%) or poorly (lower than 30%), their learning content was altered for the treatment period. For some participants extension of the standard work was included. For the

participants who received 100%, their content was altered. A comparison between their pre-test and post-test results was not possible as a new pre-test and post-test was not created for these participants due to time restraints. Their interview data was included in the results. Without the pre-test, such participants would not have been easily recognized and alternate arrangements that allowed these participants to engage in the study with a real purpose for their learning would not have been organized promptly.

3.6.2.2 Utilising the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR)

The *CEFR* (2001) outlines communicative language ability over six levels. The descriptor scales were developed to assist language educators in organising their students' learning objectives and for assessing and measuring SL learners' proficiency and progress. The description of language behaviour within each level is written in a positive manner as 'Can Do' statements. The statements are considered to demonstrate a picture of what a SL learner at each level can do and were designed to be used as a guide and not a prescribed curriculum checklist. The six levels are: (a) A1: Breakthrough, (b) A2: Waystage, (c) B1 Threshold, (d) B2 Vantage, (e) C1 Effective Operational Proficiency, and (f) C2 Mastery. The six levels are broken into three categories: the A levels describe the 'Basic User'; the B levels describe the 'Independent User'; and the C levels describe the 'Proficient user' (Council of Europe, 2001). The *CEFR* manual suggests that test developers need to align the context of the test to the framework by justifying how the *CEFR* relates to the features of the text context and the test takers. The type of test takers and their learning aims can also be used to assist determining or demonstrating a context and how it relates to a *CEFR* level (Council of Europe, 2001). The Language Policy Division of the Council of Europe (2009) created the '*Relating language examinations to the common European framework of reference for languages: Learning, teaching, assessment: A manual*'. The document outlines key considerations and processes involved in the creation of valid, reliable and feasible tests that relate to the *CEFR*. The *CEFR* manual was utilised for the development of the Croatian and English language pre-tests and post-tests and will be referred to from this point forward as the *CEFR* Testing Manual.

3.6.2.3. Operational model of listening comprehension competence

The model that is used to describe language use and what is meant by competency assists in determining what is tested and how it will be tested. *CEFR* discusses an action-orientated approach as:

Language use, embracing language learning, comprises the actions performed by persons who as individuals and as social agents develop a range of competences both general and in particular communicative language competences. They draw on the competences at their disposal in various contexts under various conditions and constraints to engage in language activities involving language processes to produce and/or receive texts in relations to themes in specific domains, activating those strategies which seem most appropriate for carrying out the tasks to be accomplished. The monitoring of these actions by the participants leads to the reinforcement or modification of their competences. (Council of Europe, 2001, p. 9)

The *CEFR* approach is consistent with the approach taken in the facilitation techniques in that the notion of competency involves strategy use that relates to the context, the circumstance and the focus theme. In listening comprehension, competencies in this study relate to the participants' ability to comprehend spoken texts. Performance is interpreted by the participants' ability to accurately answer questions on a multiple choice listening comprehension test. As most treatment periods lasted eight weeks, a smaller range of themes were covered working within developing abilities at a *CEFR* level. It is not asserted that, if the participants in the study achieved 100% accuracy on the post-test, the *CEFR* level was achieved. Only aspects of the level were targeted in the eight weeks treatment with those aspects being tested. The results are considered to represent achievement towards being able to comprehend language through listening for a range of purposes in the range of domains specified for the *CEFR* level.

3.6.2.4 Validity, reliability and feasibility

Three key areas of consideration when constructing tests are validity, reliability and feasibility. The two main forms of validity are internal validity focusing within the study and external validity focusing on being able to generalise results to a wider group (Association of Language Testers in Europe, 2011; Hatch & Lazaraton, 1991). Validity is discussed in relation to the *CEFR* in a document prepared in 2011 by the Association of Language Testers in Europe (ALTE) for the Council of Europe titled *Manual for Language test development and examining for*

use with the CEFR. The main focus of the document being on whether the testing instrument selected or developed provides enough and suitable evidence to show that a SL learner is at the *CEFR* level that the tester is claiming they are at. The *CEFR* guidelines were used in selecting and creating tasks and content for the English and Croatian pre-tests and post-tests. *CEFR* states that valid assessment includes various examples of discourse from a range of themes suited to the level. The tests focused on eight weeks of different themed discourse with matching multiple-choice questions at a particular level. The themes for the most used content set (Groups 2, 5, 6, 7 & 8) were: (1) Greetings and Introductions, (2) Following Directions, (3) Objects Hunt, (4) Describing Objects, (5) Shopping, (6) At the Café, (7) Media Session (weather report and a current news item), and (8) Describing an Event. The themes and tasks used in this study reflected activities and themes outlined in the *CEFR* levels and the plus levels as set out by the EAQUALS Can Do SIP: EAQUALS/ALTE Portfolio Descriptor Revision – General (The European Association for Quality Language Services, 2008) for Level A1+ and A2 (refer to Appendix B for a modified checklist outlining indicators for these levels for listening). Task 1 (Greetings and Introductions) and Task 4 (Describing Objects) are placed under the activity type category of ‘general listening content’ and the *CEFR* level A1+ and *CEFR* level A2 depending on the depth of responses from the participants for the greetings and introductions task. Task 2 (Following Directions), Task 3 (Objects Hunt), Task 5 (Shopping Trip), Task 6 (At the Café) and Task 8 (Describing an Event) fall under the category ‘listening to a person while participating in conversation’ for *CEFR* level A1+. Task 7 (Media Session) ‘Part A: Listening to a Weather Report’ falls under the category ‘listening to announcements’ for *CEFR* level A2 and Part B of the task which entails watching a television news report falls under the category ‘listening to programs on the television and film with visual components’.

The pre-test and post-test were in equivalent forms with minor changes being made; for example, for Question 1 relating to *CEFR* level A+ shopping task, the pre-test contained the vocabulary ‘blue hat’ and ‘\$50’. The post-test contained ‘green shirt’ and ‘\$70’ with other minor alterations. The tests covered the same themes as the themes that were covered in the treatment periods. Table 3.5 overviews the relationship between tasks, *CEFR* levels and test questions (see Appendix F for the Croatian pre-test of listening comprehension Level 1 with English translations and

Appendix G for Croatian pre-test of listening comprehension Level 2 with translation. Please note that the English tests were a translated version of the Croatian tests. The participants were only presented the questions in their target language. The tests have been provided in this manner here for ease of reading).

Test development followed the steps outlined by the *CEFR* Testing Manual as the manual promotes use of this process to facilitate the validity argument. The process begins with test construction that focuses on demonstrating what the SL learners can do in relation to the aims of the test. Scoring conventions are then specified including descriptions of how test scores can be generalised to a wider population and scale. These decisions are related to the SL learners' potential for real life use of the target language (Association of Language Testers in Europe, 2011). Using a set of generic standards such as *CEFR* standards to guide the creation of tests allows organisations within different areas or countries to be able to make tests that should assess the same types of content and have 'concurrent validity'. The tests developed for this study were used as a guide to the participants' listening comprehension ability levels. They did not examine other skills or every theme that may be covered in the level (due to the eight week treatment period). For the purpose of comparison and concurrent validity, listening comprehension has been operationally defined as the listener's ability to listen to a spoken dialogue and comprehend what was said as demonstrated by his/her ability to correctly respond to multiple choice questions.

As the listening test utilised pre-recorded dialogues and multiple choice questions, the test procedure remained constant especially for the online test as the need for external parties such as lecturers to assist in test delivery was removed. Marking also remained constant with the online test automatically marking answers and the off-line marker using a marking key. The decision to place the tests online was made in an attempt to control the possible intervening variable of agreement between data collectors' administration of the test and interpretation of results. The tests were presented in the same manner with the same instructions given to each participant. An identified risk to the apparent reliability of the tests could be if a participant chose to randomly guess answers as this test taking behaviour could yield different results if administered twice to the same group.

Table 3.5

Matching Treatment Tasks, CEFR Levels A1+/A2 and Test Items

Treatment Task	CEFR Level	Matching Test Question
Task 1: Greetings and Introductions	CEFR level A1+ (general listening content)	Text 2: Question 3; Text 5: Question 9
Task 2: Following Directions	CEFR level A1+ (Listening to a person while participating in conversation for the activity and listening in to a group conversation for the test)	Text 3B: Question 6; Text 4: Question 7 and 8.
Task 3: Objects Hunt	CEFR level A1+ (Listening to a person while participating in conversation for the task and listening in to a group conversation for the test)	Text 3A: Question 5
Task 4: Describing Objects	CEFR level A1+ (general listening content)	Text 3A: Question 5 (question asks where a particular object was located using descriptive words in relation to the object). This theme is also covered in the description used in the shopping question.
Task 5: Shopping Trip	CEFR level A1+ (Listening to a person while participating in conversation for the activity and listening in to a group conversation for the test)	Text 1: Question 1 and 2; Text 2: Question 4
Task 6: At the Café	CEFR level A2 (Listening to a person while participating in conversation for the activity and listening in to a group conversation for the test)	Text 8: Question 15 and 16
Task 7: Media Session (weather report & a current news item)	CEFR level A2 (Listening to programs on the television and film with visual component)	Text 6: Weather Report Question 11
Task 8: Describing an Event	CEFR Level A2 (Listening to a person while participating in conversation for the activity & listening in to a group conversation for the test)	Text 5: Question 10

A possible intervening variable could have been the lecturers' teaching styles during the course. The lecturers were asked to comment on the communicative aspects of their courses before the treatment periods began. Both lecturers of Croatian based their class work and homework on the same textbook. The lecturers and the researcher participated in regular discussions regarding any issues relating to the study and teaching methodology. In an attempt to control this potentially intervening variable for the facilitation techniques, the activities were organised as a

homework activity during the second and third treatment periods. The change in organisation from a class activity to a home activity was also needed due to issues with Internet bandwidth during Treatment Period 1 with the universities being able to cater for the number of users utilising online tools requiring graphics.

The *CEFR* (2001) asserts that test development needs to include in the criteria feasibility and requires consideration as to what is practical. Chapelle's (2001) perspective agrees with that of the *CEFR* stating that time pressures and available resources need consideration in the test development cycle. A test that cannot be feasibly administered is not appropriate. The circumstances of the context need consideration. The Council of Europe (2011) state that, if the development of a test is subject to time pressures, the sample selected needs to be representative of the purpose of the test but does not need to include every aspect of the *CEFR*. Relevant themes and related discourse should be of focus. A range of types of discourse should be included. For this study, the tests needed to be developed for the specific group taking the test and were considered to be small stakes tests. All of the tests aside from the legal English test were based on the *CEFR* scales enabling them to be valid. If the results of these tests were similar for both language groups, it is logical to infer that the results may be externally valid for SL learners studying other languages at this level. The Legal English test was specifically designed for the class by request of the lecturers teaching the class. As the main purpose of the pre-tests was to identify whether the content included in the facilitation techniques was suitable for the particular group, this request was fulfilled. A test that did not reflect the needs of the lecturer and the group would not have been valid or feasible. To ensure that administration of the tests was feasible, the participants were required to log on to a website and complete the test online. The lecturer was not required to administer the test. The participants took the test in their own time. To assist in motivating them to complete the test, it needed to be a short test containing short dialogues. The SL learners agreed to participate in the study having been informed that they gained no extra marks from their lecturer with needing to complete tasks in their own leisure time. For this reason, keeping the participants motivated to complete assessment and tasks was imperative. Tasks needed to be interesting and require the agreed amount of time to complete. The participants were provided a week to log on and complete the test so that they were able to feasibly find the extra time in their schedule to fulfil the task.

3.6.2.5 Test development

The test development process as outlined by *CEFR* contains: (a) identifying needs for test development; (b) planning; (c) designing; (d) developing; (e) implementing; and (f) monitoring. The process is promoted as being cyclical with a focus on evaluation and revision. The Croatian tests were created due to the lack of availability of listening tests written for CSL learners based on *CEFR* standards. The English tests were a direct translation of the Croatian tests except for the English test used during Treatment Period 1 that contained the legal English content. The structure of the course work during Treatment Periods 2 and 3 did not influence the facilitation techniques' tasks as they were completed during the participants' personal time.

The purpose of the tests, which was to assess the content that was taught during the facilitation techniques, dictated the content within the test. The *CEFR* levels A1+ and A2 for the listening skill were used as a guide when creating the tests. Similar content was utilised in the courses for Croatian based on the textbook *Dobro došli 1* (Welcome 1). The English version of the test was used after consultation with the English lecturers involved at the University of Split and the University of Mostar. They felt that their ESL learners could benefit greatly from the themes presented as they asserted that listening comprehension and speaking in conversation were their ESL learners' weaker language skills. The lecturer assisting in the study reported that the participants from the University of Mostar were at a *CEFR* level A1 with the most frequent grade awarded for English in the class being an F.

In the beginning stages of test development, the Council of Europe (2011) suggested that authenticity, how competencies are separated or integrated, and how the test will be aligned to the *CEFR* need consideration. Test items or tasks are promoted as ideally reflecting authentic situations and interactions. An authentic situational task or test item is one that reflects an activity or circumstance that may occur in real life. A test that provides a sense of authentic interaction is one in which the test taker is required to perform a task for a purpose as part of the test. In an authentic task, many competencies are used to solve a problem. When the purpose of a test is to ascertain the ability of certain competencies, *CEFR* advises to try to create tests that focus on necessary competencies and be clear as to how the tests are marked. The focus competency was that SL learners were able to comprehend a text well enough to recall important information requested during the test. The tests for

this study take the form of voice recordings of life-like conversations between native speakers of the target language on a particular theme with corresponding multiple-choice tests. Multiple-choice questions were utilised to reduce subjectivity in marking as well as reduce the number of skills needed to participate in the test. To select a multiple-choice answer, the participants needed to understand the text they listened to as well as be able to read the selection of answers. If the participants were required to write an answer, they would have needed a third skill for completing the test. Using multiple-choice questions was also simple to execute for online delivery requiring minimal explanation of how to use the test with minimal options and minimal clicks required. The tests were made with articulate (<http://www.articulate.com>), which is an e-learning software and authoring tool package.

During Treatment Period 1, the Croatian language test was a pen and paper test with the recorded dialogue being played in the classroom for the participants. All subsequent tests utilised Web-delivery either via the Moodle platform or Articulate online. Each segment on each of the themes lasted between 40 seconds to 2 minutes. Between one and two questions were asked about the listening content in each dialogue. The validity of the tests was increased due to the test reflecting life like conversations that one may listen to on each theme (Fulcher, 2000). For example, a conversation between colleagues at work was utilised during the Croatian Listening Test A1+/A2:

Tina: *Bog, Mario! Kako si?* (Hi, Mario! How are you?)

Mario: *Dobro, hvala. A kako si ti?* (Good, thanks. How are you?)

Tina: *Ja sam dobro. Što radiš poslije posla?* (I am good. What are you doing after work?)

Mario: *Idem u Pulu.* (I am going to Pula)

Tina: *Odlično! Zašto ideš u Pulu?* (Excellent! Why are you going to Pula?)

Mario: *Idem u Pulu jer je u Areni koncert.* (I am going to Pula because there is a concert in the Arena)

The researcher gained assistance with the construction of the tests from the lecturers of Croatian from Macquarie University and the University of Split and the

lecturer of English from the University of Split who were involved in the study. The Croatian version was also proof-read by a teacher of Croatian from the Victorian School of Languages who provided feedback in a community college context as to whether the test measured what it was designed to measure. The feedback that was provided by all lecturers consulted for both the English and Croatian tests was used to revise and refine the tests. The participants' average age (between the age of 18 to 32) and their gender (both males and females) were taken into consideration when producing the tests. For example, in the shopping dialogue, the shopper wanted to purchase a hat which is an accessory readily purchased by both genders. A man's and a woman's voice were used in each dialogue to provide balance and to assist the participants with differentiating who was speaking while listening. Due to the participants mostly being young adults, the themes used on the tests related to younger generations, for example, on the English test used during Treatment Period 1, one of the test dialogues dealt with a person receiving a speeding fine and how commercial radio can be used to inform people where speed cameras are. Themes such as purchasing a first home or first car were selected to suit the participants in this age bracket. The speakers on the tests were in their late 20s to mid 30s.

The *CEFR* Testing Manual was used to familiarise the researcher with the *CEFR* standards and test development process. Test items were constructed to ensure that a subsequent question item did not hold the answer to a previous question. For the Croatian listening comprehension test (Groups 2, 6 & 8), the items focused on the participants' ability to identify main themes and comprehend specific details from the listening texts at *CEFR* levels A1+ and A2. For Groups 3 and 4, the *CEFR* levels A2 and B1 were the focus. It was difficult to find SL learners at the universities involved who were studying the exact same themes in English as they were in Croatian at the same time of the year. During Treatment Period 1, the English listening test was based on class tests used during the subject to prepare the participants for course exams and Legal English exams. For Treatment Period 2, English tasks occurred during the participants' own time, the English lecturer believed that the participants would benefit from using the same listening tasks as the CSL learners were undertaking stating that communicating through speaking and listening in English was the particular group's weaker skill. The lecturer of English who assisted during Treatment Period 3 was flexible with the content focus for the facilitation techniques as task work during these periods did not interfere with class

time. For the English listening tests used during Treatment Periods 2 and 3, the focus themes were the same as for the Croatian tests. The tests were the same for the Second Life facilitation technique and the Skype facilitation technique as the same themes were used in both techniques. Treatment Period 1 contained five weeks of tasks due to timetabling issues with the computer lab at Macquarie University requiring all new computers in the first expected week of the treatment period which pushed the start of the period back two weeks. Treatment Periods 2 and 3 each contained eight weeks.

As it was difficult to control the speech rate (word per second) of the speakers of the dialogue, the same speakers of each language were used on the pre-tests and post-tests in an attempt to make the speech rate and accent as comparable as possible in the pre-test and post-test. In an attempt to control variability in Treatment Period 1, specifications for task conditions and procedures were outlined in emailed guidelines for test procedures for lecturers (test supervisors). For Treatment Periods 2 and 3, the participants were instructed on the suitable environment for taking the test via email. These instructions included, selecting a quiet room to take the test and a time when they do not receive interruptions. Reliability of the test was increased through the use of multiple-choice answers with a marking key for correct and incorrect responses.

Table 3.6
Overview of Content Themes for Treatment Periods 1, 2 and 3

Treatment Period	Test	Themes covered	Number of test items	Facilitation Technique
1. March – April, 2010	Croatian listening test A1+/A2	1. Greetings and introductions 2. Following Directions 3. Objects hunt 4. Describing objects 5. Shopping	10	Second Life
1. March – April, 2010	English legal test	1. Greetings and Introductions 2. Purchasing a Car in Australia 3. Purchasing a House 4. Food Health & Safety 5. Traffic Regulations & Penalties in Sydney.	10	Second Life
2. October – December, 2010	Croatian listening test A2	1) Greetings & Introductions 2) Going to the doctor 3) Last Weekend 4) Going to the Theatre 5) Leisure Time 6) Sport	20	Skype

		7) Travel 8) Christmas traditions		
2. October – December, 2010	English listening test A2	English version of October – December, 2010 Croatian test	20	Skype
3. April - June, 2011	Croatian listening test A1+/A2	1. Greetings & Introductions 2. Following Directions 3. Objects hunt 4. Describing objects 5. Shopping 6. At the Cafe 7. Media (Weather & News) 8. Describing an Event	20	Skype & Second Life
3. April - June, 2011	English listening test A1+/A2	English version of April–June, 2011 Croatian Listening Test	20	Skype & Second Life

Articulate online free 30 day trial version was utilised for the online tests. It was important that downloads of data were completed within the time frame of the free trial as access was denied after the trial had ended. The system allowed the user to send email invitations for the participants to take the test and it recorded users' details (as specified by the content creator) when test-takers logged in to take the test. 'Quiz maker' from the Articulate (<http://www.articulate.com/>) authoring tool range was used to produce the tests for Treatment Periods 2 and 3. The decision was made to use this software as the delivery of the tests was easier for test-takers with less clicks of the mouse required to access the tests. The production of the tests, sound file production and retrieval was much faster using Articulate than Moodle. The online English test for Treatment Period 1 had been delivered via the Moodle platform. The participants were able to preview the test questions before listening as they may have utilised the question as a lexical test taking strategy. Previewing test questions can guide the participants by giving them the schemata to structure their listening (Yanagawa & Green, 2008). For this reason, the test questions were written in the same language as the listening task. At the completion of each conversation segment, the voice recording was stopped and the participants were asked to answer the questions on the test relating to that segment.

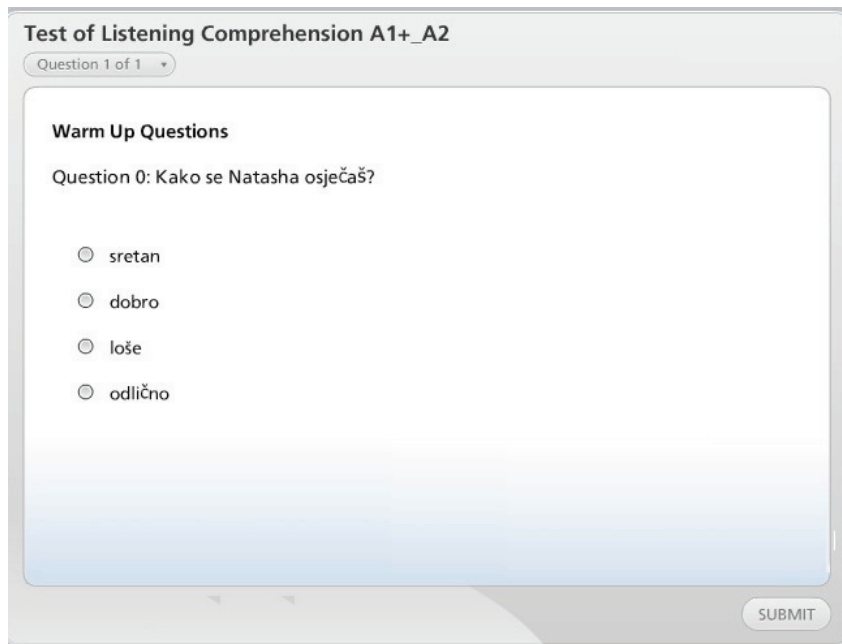


Figure 3.5. Screen shot of Croatian listening comprehension test using Articulate.

3.6.2.6 Piloting the tests

As with the treatment groups, accessing SL learners studying Croatian at the correct level using similar language learning themes was difficult. For this reason, the piloting for validity took place in three stages. In the first stage, consultation was made with the lecturer of Croatian at Macquarie University and a lecturer of Croatian at the University of Split. Recommendations were made by these lecturers resulting in two questions on the Croatian listening test A1+/ A2 being altered prior to administration during the treatment periods. Consultation was made with the lecturer of English at the University of Split to ensure the theme and questions were appropriate for their learning. A teacher of Croatian from a school of languages in Victoria was asked for her feedback on the tests. The second stage entailed a five SL learners piloting the Croatian pre-tests and post-tests. Volunteers for the pilot test trial were interviewed following the pilot to ensure validity and appropriateness of questions (Gorsuch, 2004). They were also asked whether instructions were easy to understand and follow. For the legal English tests, piloting was not feasible due to time constraints between the time the tests were developed after consultation in Croatia with the lecturer regarding the content to the beginning of Treatment Period 1. Consultation with the lecturer of English occurred once again after the first draft of the test was made. This was the same process used for the pre-tests and post-tests that were translated versions of the Croatian tests. The lecturers of English from the

University of Split and Mostar reviewed the tests and provided feedback. The third stage entailed the pre-tests and post-tests in Croatian being piloted a second time in February, 2011 with two SL learners to assist the establishment of test reliability. A teacher who teaches Croatian in Brisbane in a community setting reviewed the tests in the Australian Semester 1, 2012. Continuous revision of tests is a recommendation made in the *CEFR Testing Manual*.

3.6.2.7 Marking processes

As suggested in the *CEFR Testing Manual* (2011), the criteria and rating scales used to demonstrate achievement of the learning objectives focused on in the facilitation techniques were based on the descriptors used in the *CEFR* scales. *CEFR* distinguishes between main descriptors of learning and places them into two categories: (1) the descriptors of behaviour that relate to communicative activities, and (2) the descriptors that relate to selected competences and SL learners' proficiency. The *CEFR Testing Manual* suggests that when assessing performance abilities it is not generally suitable to use descriptors that relate to communicative activities. The assessment is suggested to focus on the demonstration of a general competency rather than SL learners' performance on one particular task. The tests examined the participants' performance abilities related to listening in a variety of tasks. Each task examined the participants' ability to comprehend different types of spoken text. Each multiple-choice question contained four possible answers with one answer being correct and three being incorrect. For Group 2, the researcher marked the results using the marking key (see Table 3.7 for an excerpt of the marking key) and marked by hand. Results were checked twice to identify any error. The remainder of the pre-tests and post-tests were automatically marked by either Moodle for Group 1 or Articulate online (<http://www.articulate.com/products/articulate-online.php>) for all other groups.

Table 3.7
Marking Key Excerpt for Pen and Paper Version of the English Pre-test.

Question number	Correct answer
1	A
2	B

The marking key was the same for the online versions with the system being instructed which answer was correct. Figure 3.6 demonstrates an example of the administrator's view when creating an online test. One is able to select which answer will be correct and if desired the number of points given to the correct answer. For Treatment Periods 2 and 3, the Articulate software automatically marked the participants' work and provided the data in an Excel spreadsheet.

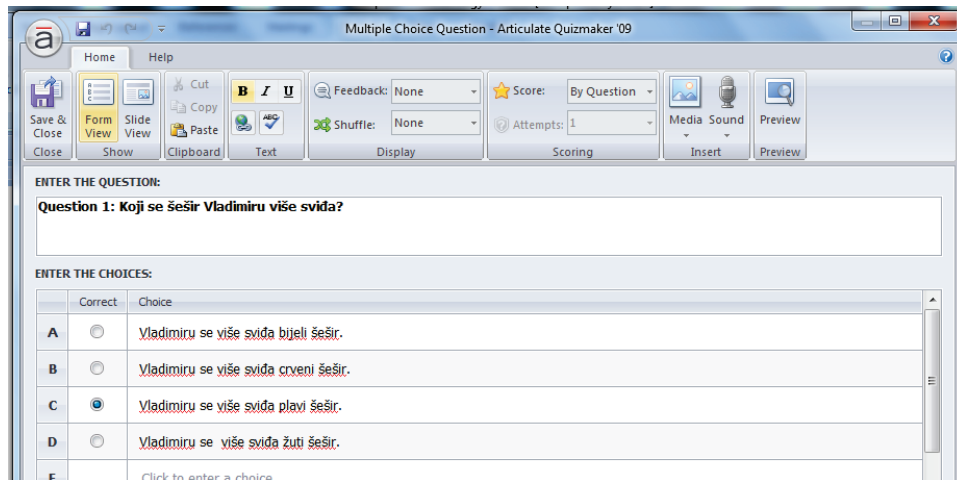


Figure 3.6. Example of marking tool in Articulate quiz maker.

3.6.2.8 Administration of the Tests

The pre-test was administered a week prior to the first week of the treatment period. The post-test was administered one week after the last task was completed. Test administration procedures were outlined via email for lecturers who supervised the tests during Treatment Period 1 and an adapted version was given to the participants via email for Treatment Periods 2 and 3. For Treatment Period 1, the ESL participants took the test online in the computer lab at their university. They sat at their own computers using their own headsets. Those participants who were not involved in the study worked quietly on other designated language tasks during the testing period. The lecturer instructed the participants to log on and take the test individually. They were not allowed to ask others for clarification regarding their answers. If they had a problem or needed assistance, they were required to put their hands up and wait until the lecturer addressed them so that others were not interrupted. For Treatment Periods 2 and 3, the participants received an email containing the instructions for sitting the test. They were instructed to sit the test in a quiet and comfortable environment at a time when they would not be interrupted.

They were asked to allow themselves 40 minutes to take the test. Suggestions were made for reducing interruptions such as switching off mobile phones. If an issue occurred with the system, the participants were asked to email the lecturer immediately and explain the problem they encountered.

3.6.2.9 Training staff to administer the tests

For Treatment Period 1, the researcher provided training to the lecturer in Split (during the researcher's visit to Croatia between October and December, 2009) on how to administer the tests. The training focused on how to log on to the system and complete the online test. Training was not required at Macquarie University during Treatment Period 1 as the researcher administered the pre-test and post-test. Due to limited resources, the researcher was unable to personally visit BiH to deliver training to staff members at the University of Mostar. For Treatment Periods 2 and 3, the participants completed the pre-test, post-test and tasks in their personal home time which eliminated the need to train staff and instead email instructions were sent directly to the participants.

3.6.2.10 Ethical considerations

Aside from the acknowledged consideration for confidentiality, the main considerations relating specifically to the pre-tests and post-tests were: the participants fearing that their results from the pre-tests and post-tests would influence their overall course results and put them at a disadvantage if they did poorly compared with others who might not have participated; and fear of failure or embarrassment if the participant did not achieve well. The first issue, the fear of the test results influencing course marks, was addressed by informing the participants that their data was only used for the study and that it was not used as part of the course assessment. The second issue was addressed by explaining to the participants that their data (pre-test and post-test results) was de-identified and that the data was used to inform the researcher on the quality of the facilitation techniques, their achievement on the post-test was viewed as a reflection of the effectiveness of the technique. The focus was taken off the performance of the individual and their results and placed on the 'performance' of the facilitation techniques.

3.6.3 Email Reflections

3.6.3.1 Justification for the use of email reflections

The interview data in Treatment Period 1 provided insight into the generic use of the facilitation technique about the participants' perceptions of aspects of the online tool for developing listening comprehension and communicative strategies as well as the affordances of the online tools. To gather further data on the effectiveness of the facilitation technique in Treatment Periods 1 and 2, the participants' email reflections were incorporated into the data collection plan. Goh (2002) discusses retrospective verbalisation and asserts the benefits of reflecting a short time after an event. The email reflections focused on evaluating and reflecting on each task in the facilitation technique within a short time and preferably immediately after participation. Lecturers in Treatment Period 1 were also asked to provide email reflections on their observations and perceptions as they were able to watch the participants and listen to their conversations after they had completed the tasks and logged off. The information gained from the email evaluations was predicted to offer insight into the success and issues related to each task and contribute to understandings relating to the affordances of the online tool for specific activities for developing listening comprehension.

3.6.3.2 Email reflections from the participants

The participants in Treatment Periods 2 and 3 were asked to write a brief reflection following each session focusing on: any general comments relating to their experience; comments relating to using the online tool; and comments relating to any strategies they used when they could not understand what their partner had said. The length of the reflection was not specified. The participants were asked to email their reflections to the researcher following each session. It was explained that their honest perceptions were required and that there would not be any negative consequence from providing constructive criticism.

3.6.3.3 Email reflections from the facilitators

The lecturers in Treatment Period 1 were asked to email observations to the researcher following the tasks each week. These observations focused on the lecturers' perceptions of the effectiveness of the tasks and the use of the online tools. The lecturers in all treatment periods were asked to provide reflections on the

facilitation technique upon completion of the treatment period. They were instructed to reflect on: (a) whether they perceived the facilitation technique had an effect on the participants' listening comprehension skills, (b) their perceptions of the positive affordances of the online tool for developing listening comprehension, (c) technological considerations, and (d) recommendations for improvement. These reflections were predicted to gather more data during Treatment Period 1 than the other treatment periods as the lecturers were present and supervising the participants during their time in the computer lab. It was predicted that they would be able to see any issues the participants had and how they resolved them and comment on conversations that could take place following the sessions. They may have also needed to solve issues with the participants relating to the use of the online tool.

3.6.3.4 Researcher observation notes

Researcher observation notes were included to document relevant reflections or comments the participants may have made to the researcher regarding the study. The researcher was the main person involved in the organization of information technology staff who assisted with the required technology for the study being available for the participants during Treatment Period 1 at Macquarie University and the University of Split. The set up of technological resources including the installations of headsets, Second Life and Skype at the University of Split occurred in November 2009 while the researcher was visiting the university in preparation for the study to take place. The set up of the technical requirements occurred at Macquarie University in February 2010. Researcher notes were expected to provide valuable information regarding the processes and issues involved in setting up a study utilising these online tools. For Treatment Periods 2 and 3, the researcher provided reflections regarding any assistance given to the participants via email on the installation and use of the online tools.

3.6.3.5 Ethical considerations

The main considerations with email reflections were that the data was de-identified and that there were not any negative consequences as a result of commentary made by the participants. The participants required the freedom to be honest without fear of repercussions. For example, if the participants believed that a task was not appropriately organized to scaffold the development of the vocabulary

and skills it was designed to, then the participants needed to be able to provide constructive criticism without fear of upsetting their lecturer or the researcher and without fear of any negative consequences. It was explained to the groups involved that they were being asked to provide reflections so that their lecturers and the researcher could gain deeper understandings into the use of the online tools and the facilitation techniques. The participants were told that they were being asked to provide positive and negative commentary if necessary so that the researcher could improve the technique. It was explained that their role was an important part of the process. The guidelines to writing email reflections and the process were outlined in an email (see Appendix H for the 'Participants' guidelines to writing email reflections').

3.6.4 In-depth Interview

3.6.4.1 Justification of the interview

As part of a concurrent nested design, the qualitative data gained from the interview and email reflections was given dominance (Creswell, Clark, Gutmann, & Hanson, 2003). Mixed-method approaches incorporating pre-tests, post-tests and interviews when investigating computer-assisted learning techniques have previously been successfully utilised during other studies such as those by Ashraf, Noroozi and Salami (2011) and Sykes (2009). The purpose of the qualitative interview is to investigate the participants' perspectives and views of their experiences with the facilitation technique (Kvale, 2007). The interview discussions were expected to deliver insightful data regarding what the participants' perceived the online tool afforded them when it was used as part of a facilitation technique to develop listening comprehension. The interview was designed to answer Research Question 1: What are SL learners' perceptions of using Second Life and Skype for developing listening skills in their target language? and Research Question 3: What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL? The interview was used with qualitative methods relating to approach, design and data analysis. During the interview, the participants were asked to consider the affordances of each tool; that is, what the tool allowed them to do as well as what it concealed or did not allow them to do and how it assisted them in developing their listening comprehension. This data was predicted to provide the researcher with insightful information regarding how the participants interacted with

each other and with the technology using each facilitation technique for the specific purpose of developing listening comprehension. The participants were asked for their opinion on how the facilitation technique could be improved. The question reflects the stance that the participants were able to offer valuable data regarding evaluation of the technique as they participated directly in the implementation of the treatment. It is important to note that an individual's knowledge and understanding of the affordances of technology will influence their ability to use and evaluate the use of an online tool (Turner, 2005).

3.6.4.2 Validity and reliability

It was not feasible to run a trial of the complete facilitation technique prior to trialing the interview due to time constraints. Instead, a small trial of one lesson and the interview took place as well as consultation with three experts in the field of language learning and virtual learning. Two lecturers were consulted regarding the questions used for the interview, one of Croatian language who used computer-assisted learning from Split, and one of Croatian language who had trialed the online tools. As a result of consultation with the lecturer who utilized computer-assisted learning in her classes, a question specifically asking how the virtual learning space influenced the participants was removed as it was advised to be a question that elicited a response that may not have been a feature that stood out to the participants without the inclusion of the question. Including the question may have made this affordance appear more relevant than the participant may have thought it to be. Two CSL learners from the Brisbane Croatian Club were asked to trial one activity using Skype with the researcher as their partner. Following the activity, both SL learners then participated in the interview. It was acknowledged that answers would not completely represent the type of answers that an interviewee may provide after completing the whole facilitation technique before the interview.

Flick (2007) stated that traditional discussions of reliability in relation to the results being similar in repeated data collection with an interview are not appropriate. Reliability was considered in terms of being able to replicate the interview process so that the participants experience interview situations that are as similar as possible. The issue of reliability was addressed by having controls in place to assist with reducing the risk of intervening variables hindering the replication of the interview. A possible intervening variable could have been agreement between data collectors'

style and the interpretation of the interview transcription. In an attempt to control this variable and improve internal and external reliability, data collectors were provided training on data collection procedures. Interviewer guidelines were provided which described the interviewer's personal manner and questioning techniques. To assist in reliability of the transcribed data, standard transcription conventions set out in Kvale (2007) were utilised. Transcriptions were recorded verbatim although if a quotation was selected for reporting purposes, the quotation was presented in a more fluent style if it contained many false starts or fillers. A second rater was used to listen to the recording while reading the transcription. If the second rater noticed any differences, these differences were commented on. This process was selected, instead of the second rater transcribing the interview and then comparing both transcriptions, due to time constraints on the second rater's schedule. If differences were noted, the process decided on was that the researcher and the second rater would listen to the recorded data again and discuss the differences until a consensus was made. This was not necessary. The second rater only asked that a note be made in the reporting of results stating that errors in sentence starters, stutters and the use of 'um' and 'ar' between words have been removed in the written format.

3.6.4.3 Interview development and structure

The interview was developed to focus on the participants' perceptions of the effectiveness of the learning task and the use of the online tools to create a learning space. The main affordances of the online tools, as identified in the literature review, were used to guide question creation. Sedorking and Mc Greggor (2002) suggests preparing a combination of closed and open questions with more open questions to be used to ascertain more information. At the beginning of the interview, three questions were asked to gain information about the participants' background and view of their skills. Tanur (1994) suggests that questions should be constructed as a group of questions that focus on one theme as one question alone may be flawed. Having a group of questions on a similar theme is viewed as insurance to eliciting the information that the interviewer seeks. The first three questions focused on motivation for learning the target language: (a) "What are your reasons for learning English/Croatian?"; (b) "Did you begin this course with any prior knowledge of or skills in using English/Croatian? Please explain."; and (c) a self-evaluation of the participants' perceptions of their strongest skills in the target language – "What do

you believe is your strongest skill at your current ability level in English/Croatian: speaking, listening, reading or writing?”. Tanur (1994) explains that interviewees interpret question meaning from their own perspective. In this instance, the participants’ perspectives of the level needed to be considered ‘good’ at a skill may vary. The way the participants evaluated their own skill may be provided a different perspective when compared with how a teacher may evaluate their ability (Dunning, Heath, & Suls, 2004). The information gained from the first three questions was used to confirm or reject the generic view of the participants provided by the lecturers of the course and to build a picture of their background.

Question 4 was a cluster of questions that followed one another as a guide to the interviewer: “How did you prepare yourself for lessons knowing that you would be speaking with a native speaker located in Australia? Did you prepare yourself differently for the task work in comparison with how you would prepare yourself for your usual language class? Did you spend more time preparing?” The question was used to elicit how participating in the facilitation techniques influenced the participants’ personal preparation time. Question 7 “What type of strategies did you use during the tasks if you could not understand the other speaker?” also focused on the theme of language learner strategies in relation to the learning space. Both questions were used to investigate the types of strategies the participants utilised in each learning space (Second Life and Skype) to gain more insight into the affordances of the space. Whether each learning space provided different or similar affordances was also investigated. The specific focus was on the strategies the participants utilised when there was a communication break-down or a lack of understanding.

Questions 5 and 6 continued with the theme of the affordances of the particular learning space: “Do you feel the Skype sessions provided you with any new experiences as a student that the normal classroom may not? If so, describe those experiences.”, and Question 6 “How did you feel listening to native speakers of English/Croatian and trying to communicate with them in English/Croatian? (additional optional question: Do you feel using a video-conferencing tool such as Skype where you see each other’s face was beneficial?) Please explain.” These questions were altered for the Second Life treatment groups to directly elicit information and experiences regarding Second Life.

Questions 8 and 9 were used to gain information around the theme of cross

cultural communication and cultural learning: Question 8 “How did you feel about having a partner from Australia? Were there many cultural differences? If so, please provide some examples.” and Question 9 “Were there positive cultural aspects or learning from having a partner from an English speaking country? Were there any negative cultural aspects?” As the study contained participants from different cultural settings, these questions were included in the data collection to gain a fuller understanding of cross-cultural learning spaces and experiences.

Questions 10 and 11 were incorporated into the interview to direct interviewees to provide information specifically on the affordances of the tools: “What are the benefits of using Skype to develop your language skills and what does it offer you as a learner that other activities don’t?” and ” What are the pitfalls of using Skype to develop your language skills?” The interviewee may have offered these answers previously in other questions. These questions were incorporated into the interview to focus responses relating to affordances.

As the participants’ perspectives of their experience provided insight into the language learning spaces and use of the techniques, they were asked to provide their opinions on improvements which could be made to the techniques in Question 12: “Do you have any suggestions as to how this learning technique can be improved? You can comment on how to better structure lessons, the lessons themselves, or when the lessons could take place.” This question focused on the participants’ needs that were not met in relation to the technique and affordances of the online tool for learning. It is somewhat a repetition of Question 10 regarding the pitfalls of using the online tool including the structure of the technique and organisational aspects. An additional question was used for the participants from Treatment Period 2 who participated in both the Second Life and Skype facilitation techniques, this being: “Having also participated in listening tasks using Second Life, how would you compare Second Life with Skype for developing listening comprehension?” As the questions in the interview were used as a guide, it was acceptable for the interviewer to ask further probing questions relating to an answer if clarity or further depth was required.

The interviews for the CSL participants and for the ESL participants were in equivalent forms. It was important to ensure that interview questions were culturally and linguistically understood by the respondents (Mishler, 1986) and for this reason the interview was made available in both languages and it was the decision of the

participants which language they wanted to be interviewed in. The lecturer of Croatian was consulted on the translation of the interview to ensure accuracy in the event that the participants wished to be interviewed in Croatian.

3.6.4.4 Ethical considerations

As the participants resided in three countries, cultural and linguistic ethical perspectives were important considerations in the creation, delivery and interpretation of the interviews. The interview questions were available in either Croatian or English for the participants to select their preferred language. A lecturer of Croatian who was fluent in English and living in Australia ensured that the questions were translated correctly and were asking for the same types of information in both languages. The lecturers from Croatia and BiH involved in the study were born in Australia and spent approximately 20-25 years there. One lecturer was from Sydney and one was from Perth. Both had Croatian parents and had married Croatians who grew up in Croatia and moved to their current locations in their 20s. As they had grown up in Australia, they had an insight into Australian culture and Australian student culture. Due to them both having resided in their current locations for at least 20 years, they had knowledge of the culture of the people and students attending university in Croatia and BiH. The lecturers were consulted as to whether there would be an intervening variable of the participants creating answers to please the interviewer (whether the interviewer was their lecturer or the researcher) instead of telling the truth about an experience. Both lecturers reported that the students were more inclined to provide their honest opinion. The lecturer in Croatia advised that if the participant had an opinion, they would provide it as they were aware of the research process rather than be worried about consequences of their criticism (T. Blažević, personal communication, November 5, 2009). Nevertheless, at the interview stage the participants were reminded that their data would be de-identified and their honest comments valued. Constructive criticism was welcomed and appreciated.

Following transcription, the data was given a code number to represent each participant to ensure that the participant's identity remained confidential (Kvale, 2007). In the event that sound was not working effectively, interviews continued via text chat in Skype. The data was copied and saved in a Microsoft Word file. The participants' names were then changed to their code number throughout the text

conversation. Kvale warns that transcribing interview data verbatim and using it in this form may offend or upset interviewees because the data verbatim can contain false starts, pauses, revisions which may make the speech and the speaker appear confused and be unable to construct sentences well. Instead, Kvale advises that interview transcripts be kept in a form that is considerate of the typical language use of the interviewee. For this reason, although interview data was transcribed verbatim, if many false starts or fillers were used which interrupt the flow of the meaning in written form, these were removed for reporting purposes.

3.6.4.5 Administration of the interview

In-depth interviews were conducted between one day and one week following the post-test. One interview occurred one month after the treatment period due to a participant having a family matter to attend to which made it difficult to meet with the researcher at the initially arranged time. It was planned that data would be voice recorded for the interviews using a laptop or the Pamela Call Recorder (<http://shop.skype.com/apps/Call-recording-audio-video/Pamela-Call-Recorder.html>) for interviews conducted utilising Skype. Due to technological issues, however, it was not always possible. At the University of Split, there was much trouble with technology as they were under resourced and lacked IT staff. There was only one IT staff member who maintained IT at the faculty. Lecturers were provided their own computer in their office. There was one computer lab in the faculty and two laptops for all staff to share via a booking request system. The laptops as with the lecturers' computers had limited software and required an administrator password to install new software. To install Second Life, Skype and the headsets purchased for the study on the computers in the computer lab, much negotiation with the IT professional in charge was required. The researcher visited Croatia for three months in 2009 and required a month and a half to finalise installation of Second Life, Skype and the headsets. The lecturer requested to interview the participants asking them the questions and recording their answers using pen and paper. This process was agreed to and occurred for treatment groups from the University of Split. For treatment groups from Macquarie University and the University of Mostar, the researcher interviewed the participants via Skype. Permission to record the interview data using a voice recording device, text-chat or in written form was sought for before beginning the interview. On occasions when Internet connection problems occurred

and rendered clear voice communication not viable, the interview continued utilising the chat function. The data was then copied and pasted into a Microsoft Word document. The participants' names were then changed for their code number throughout the text conversation.

Guidelines were developed for the interviewers to assist in establishing the reliability of the interview process. The guidelines asked the interviewers to use the prescribed interview questions in the first instance and actively listen to the interviewees' responses. If the response needed further clarification or the interviewee had provided information that potentially could lead to another question being asked, the interviewer was able to do so. The social interaction that can occur during interviews was considered important. It could incorporate: (a) active listening; (b) repeating part of an answer to lead into another question; (c) using body language which is open and friendly (e.g., arms not crossed and body facing towards the interviewee); and (d) speaking in a polite and relaxed tone and pace (Kvale, 2007). The interviewer was provided a list of the main themes that the interview was designed to elicit which were: (a) the participants' preparation for tasks, (b) strategies used, (c) advantages and disadvantages of utilising the learning space created by the online tool for developing listening comprehension, (d) new experiences, (e) cultural experiences speaking and listening to a native speaker from a different country, and (f) suggestions for improvement of tasks.

The researcher interviewed all participants except those from Group 1 from the University of Split. The lecturer of English interviewed these participants due to time and access issues. The lecturer was provided training in Split in 2009 during the researcher's visit to Croatia. The training consisted of the researcher discussing with the lecturer the purpose of the interview and the themes it focused on. Interview styles and manners were discussed as well as recording techniques. A mock interview occurred for practice. The lecturer of English was a native English speaker. When asked if she would interview the participants in Croatian, she voiced a preference to interview the participants in English although she was able to conduct the interview in Croatian if required. The option to have the interview in Croatian was provided and the choice was left to the participants.

3.7 Methods of Data Analysis

3.7.1 Overview of Data Analysis and Triangulation of Results

The qualitative data demonstrated the participants' perceptions of their development of listening comprehension during facilitation technique tasks that occurred in the learning spaces created by two online tools: Second Life and Skype. The quantitative data from the pre-tests and post-tests was used to discuss whether the facilitation techniques utilizing learning spaces were effective for developing the participants' listening comprehension. The results from the quantitative data, interview data, reflections and observation notes, were compared to explore the research questions. The quantitative and qualitative data was collected, compared and contrasted in three stages. In Stage 1, the data collected from each group was analysed to provide a picture of the results gained by each group. Figure 3.7 presents the process for data collection, comparison and analysis.

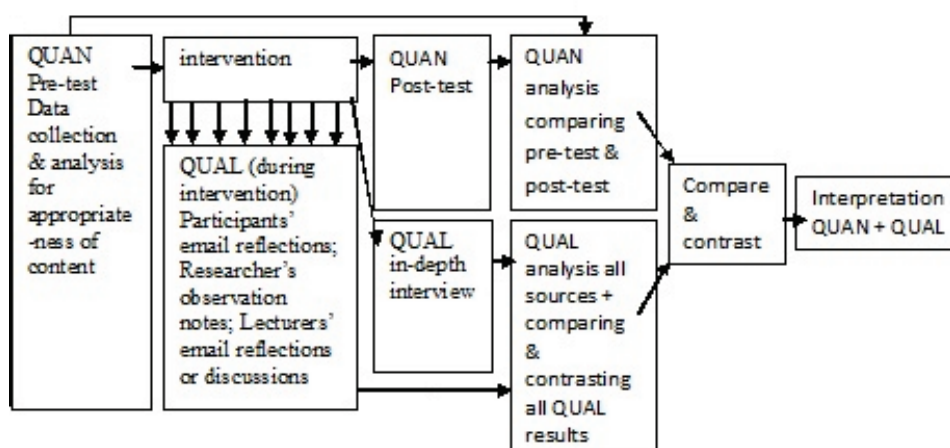


Figure 3.7. Research design for Stage 1 analysis using triangulation for each treatment period.

In Stage 2, the data was then collated for each facilitation technique. This resulted in all data relating to Skype being compared and contrasted to provide a picture of the results for the facilitation technique. It was then repeated for the facilitation technique using Second Life. Data from the Skype facilitation technique was further compared to ascertain whether there was any significant difference in the results from the English Skype groups and the Croatian Skype groups. Group 3 (English) and Group 4 (Croatian) used the same content and translated versions of the same pre-test and post-test so the data from these groups was compared. Data from Group 7 (English) and Group 8 (Croatian) was then compared and contrasted.

Table 3.8 provides an overview of the comparison. The comparison took place for the quantitative and qualitative data. The process did not occur for the Second Life group as the content was different for Treatment Period 1 and the high performance of two out of three participants on the pre-test in Treatment Period 3 resulted in the data being removed from the pre-test and post-test analysis. In Stage 3, the data analysis from the Skype facilitation technique was compared and contrasted to the data analysis from the Second Life facilitation technique. It was done to explore whether there was any significant difference in the results from the pre-test and post-test and the experience of learning in each learning space.

Table 3.8
Stage 2 Comparing Data from All Skype Results and then All Second Life Results

Skype Data Analysis Stage 2	Second Life Data Analysis Stage 2
Data from Stage 1 for Groups 3, 4, 7, and 8 were compared and contrasted. Data from Skype treatment Group 4 and 5 were compared and contrasted to ascertain whether language and/or ability level impacted on the results Group 7 and 8 were compared and contrasted to ascertain whether language and/or ability level impacted on the results	Data from Stage 1 for Groups 1, 2, 5, and 6 were compared and contrasted.

3.7.2 Analysis of the pre-test to inform teaching

The pretest was analysed within three days of administration. It was necessary to ensure that the participants' results indicated that they were at an appropriate ability level to be able to engage with the planned content focused on in the facilitation technique. The pre-test for Treatment Period 1 contained 10 questions and for Treatment Periods 2 and 3 it contained 20 questions. The participants received one point for every correct answer. Through negotiation with the lecturers involved in the study, it was decided that, if a participant scored below 80% correct on the pre-test, then the content focused on in the facilitation technique was at a suitable level. The participants who received marks higher than 80% were provided with more challenging content incorporated into the tasks for their learning benefit based on their interest and needs. The content was made more difficult by including more difficult vocabulary and sentence structures. In the case of one ESL participant from the University of Split and four English participants from BiH who achieved 100%, they were provided with alternate themes such as English idioms. For these

participants, the post-test was no longer appropriate resulting in their data being removed from the quantitative analysis. Their email reflections and interview data were used to analyse their perceptions of the effectiveness of the facilitation techniques utilising the online learning space.

3.7.3 Analysis of the Pre-test and Post-test

In Stage 1 of the data analysis, the results from the pre-tests and post-tests administered to the eight treatment groups were compared and analysed within each treatment group. Paired *t*-tests were used to analyse and compare data to ascertain whether significant gains in the participants' listening comprehension development resulted from participating in the facilitation technique. In Stage 2 of the data analysis, each of the four Skype treatment groups' data was compared to ascertain whether there was any significant difference between the groups. The same process also occurred for Second Life. A comparison was made of the scores between English and Croatian groups who participated in facilitation techniques using the same content, these being: Group 3 and Group 4 and then Group 7 and Group 8, to ascertain whether there was any significant difference between language and ability groups. In Stage 3, all data from the Skype groups was collated and *t*-tests were used to ascertain whether there was any significant gain. The same process was completed for the Second Life group. The results of the *t*-test for Skype were then compared with the results from the *t*-test for Second Life to ascertain whether there was any significant difference in the results for the participants who took part in either facilitation technique.

3.7.4 Analysis of the Interview

The general analysis of the interviews followed the same three stage pattern described in Section 3.7.1. The analysis began by each response being given the code number of the corresponding participant. Within each treatment group, the answers were then grouped according to the questions, for example, all the answers to Question 1 were grouped together. The interview data was reflected on and read and reread to decipher the main meaning presented in each answer. Saldana (2009) refers to this process as decoding. Once main themes were identified, they were labeled. The labels became the basis of the coding. Descriptive codes were used to represent main themes presented in the data. The next step was the grouping of codes into

categories termed ‘nodes’ in Nvivo 9 (see http://www.qsrinternational.com/products_nvivo.aspx). The grouping of codes was completed by identifying codes that pertained to similar themes which led to the development of a coding scheme: for example, under the category ‘affordances’ were the subcategories ‘IM’ and ‘see one’s partner’. Following this, identification and analysis of themes took place, which led to the building of concepts around the themes in relation to the research questions. Concepts are considered by Richards and Morse (2007) as the high level constructs that build from codes and themes.

Data was then further analysed for identification of direct quotes for presentation and for unanticipated patterns in the results. Direct quotes were selected to demonstrate the meaning behind concepts presented in the interview data. A second rater was used to check for reliability of interpretation. The second rater (the same PhD candidate of psychology used for the pre-tests and post-tests) was asked to read the interview data and identify the main themes present. The themes identified were then compared by the researcher with the researcher’s analysis. The analysed data from each treatment group was then compared to gain a fuller picture of the influence of utilising the learning spaces created by each online tool and their affordances in relation to the participants’ listening comprehension development. NVivo 9 was utilised to assist in the data analysis.

3.7.5 Analysis of the Email Reflections

Reflections were originally grouped according to the online tool (Second Life or Skype) used in the facilitation technique. The participants’ code numbers were recorded on each of their reflections. The reflections were then grouped according to the facilitation technique tasks they were written about. The same process of decoding and coding occurred as for the interview data. NVivo 9 was utilised to assist in the data analysis.

3.7.6 Analysis of the Researcher’s Observation Notes

The researcher’s observation notes were coded by the researcher. The same second rater was used to ensure that the researcher’s coding scheme was reliable. This is essential due to the potential subjectivity in coding one’s own notes (Saldana, 2009). The same process of decoding, coding and creating categories and subcategories as executed in the analysis of the interview data took place with the

researcher's observation notes. NVivo 9 was utilised to assist in the data analysis.

3.8 Summary

The study aimed at finding ways to assist SL learners in accessing native speakers of their target language to facilitate the development of their listening comprehension. It examined the effectiveness of using Second Life and Skype as part of facilitation techniques as well as the affordances of the online tools for specifically developing listening comprehension skills. The participants in the study were learning either English or Croatian at either: Macquarie University, Sydney, Australia; University of Queensland, Queensland, Australia; University of Split, Split, Croatia; and the University of Mostar, Mostar, BiH. There were a total of 35 participants with 11 of the 35 participating in Treatment Periods 1 and 2. Data collection occurred during 2010 and 2011 within three treatment periods with 4 groups participating in the Second Life facilitation technique and 4 groups participating in the Skype technique. A mixed-methods approach was taken with quantitative data collected using pre-tests and post-tests to gain further information on the effectiveness of the techniques for developing listening comprehension. Qualitative data was collected using interviews and reflections with the purpose of gaining the participants' views on the perceived effectiveness of the techniques and the affordances of Second Life or Skype.

Chapter 4

Results

This chapter presents qualitative and quantitative data collected over three treatment periods. The results are presented in three stages to demonstrate each group's results (Stage 1) as well as the collated results for each online tool (Stage 2) prior to the comparison between the use of Second Life and Skype (Stage 3). In Stage 1, the results from the participants' pre-tests and post-tests as well as their interviews are outlined (see Appendix I for Skype Data Coding Themes and Sub-themes with Examples to provide an overview of the coding themes). It is necessary to consider individual group results to ensure consistency of results between groups using the same online tool and to demonstrate the different or similar priorities and experiences of different groups of language learners. The quantitative data is presented alongside the qualitative data to provide the overall picture of the data collected for each group. This is important as the data was collected on small-sized groups of participants. In this sense the quantitative data is used to strengthen the qualitative results. In the Stage One analysis the following assumptions are made: 1) that there are two levels (groups) of one independent variable being compared; 2) that the size of the two groups is equal leading to the t-test being considered as robust (Hatch & Lazaraton, 1991); 3) that the data was scored data and not rank-ordered data; 4) that when the investigation was between 2 levels a t-test was utilised; and 5) that when the investigation was a repeated measure between two levels, a matched pairs t-test was used. During the investigation in Stage 3, the t-test was used as a guide to consider trends in the data.

Individual group results were revisited, analysed and compared in Stage 3 to ascertain whether any trends presented in the results relating to the language being learnt or the participants' ability levels that may have influenced the results. The analyse of the trends is presented to stimulate further investigation in this area. Although the participants' email reflections were collected where offered, they were not provided consistently and were in general positive comments resulting in the decision to only present significant themes for relevant groups. The researcher's observation notes are presented only if they were relevant to the research questions. In Stage 2, all the data from the Skype facilitation technique groups (Group 3, Group

4, Group 7 and Group 8) is collated and compared to ascertain whether results were consistent for the participants if any inconsistencies existed and to provide a fuller picture of the participants' experiences in relation to the technique. The same process occurred for the Second Life facilitation technique groups (Group 1, Group 2, Group 5 and Group 6). In Stage 3, the collated results for the Skype facilitation technique were compared with collated results for the Second Life facilitation technique. The final comparison considers the similarities and the differences between the two facilitation techniques.

4.1. Treatment Period 1: Group 1 English Second Life

4.1.1 Pre-test and Post-test Results

The pre-test results for all members of Group 1 fell within the range of 30% to 60% accuracy. As a result, no content changes were made for any of the participants in Group 1. The pre-test and post-test treatment scores were analysed using a paired *t*-test. There was a statistically significant positive change following the Second Life treatment ($p = 0.002$) indicating that improvement in listening comprehension was made following participation in the Second Life facilitation technique.

Table 4.1
Group 1: Participants' Results

Participant	Pre-test score /10	Post-test score /10	Gain score
1	5	5	0
2	6	8	2
3	6	9	3
4	5	8	3
5	4	5	1
6	3	5	2
7	6	8	2
8	4	5	1

Table 4.2
Group 1: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	4.88	6.63	
<i>SD</i>	1.13	1.77	
<i>SEM</i>	0.40	0.63	
<i>p</i> value			0.002
No. participants	8	8	

4.1.2 Interview Results

A total of eight participants took part in an in-depth interview following participation in the Second Life facilitation technique. The results of the first three questions relating to learning motivation, prior knowledge and self-assessment of language ability assisted in developing a profile of the participants involved in each group. A half (4) of the participants in Group 1 were motivated to learn English for the purpose of communicating with people from other countries in the European Union (EU) noting that Croatia is entering the EU in July, 2013. Examples of comments that demonstrate the participants' acknowledgment of the importance of English for intercultural communication included: "English is [*sic*] very important language, the most important in the world" (Participant 1); "I think learning English nowadays is really necessary if we want to connect with foreign cultures" (Participant 6); and "It is good for the [*sic*] communication in the EU" (Participant 8). Two participants were learning English due to it being a compulsory requirement as part of their law degree: "Well, there is no special reason. It is my regular subject, so like it or not I have to learn it" (Participant 5). Participant 4 was learning English because of his love of learning languages and Participant 2 due to her desire to improve her current skills in English. All participants indicated that they had prior knowledge of English acknowledging they learnt English before entering university with half (4) beginning in elementary school and half (4) beginning in high school. Two participants believed writing to be their strongest skill in English. Two participants selected speaking as their strongest skill. One participant selected listening and three provided multiple skill responses with two of the three indicating that they did not like writing in English: "I am good at speaking English and reading English. I understand English movies easily. Sometimes spelling is hard on [*sic*]"

writing English” (Participant 8).

The remainder of the interview questions focused on the themes of: preparation for learning; new experiences as a learner; the participants’ feelings using the facilitation technique; perceived benefits of using the tool; strategies for learning using the facilitation technique; cultural experiences; the pitfalls of using the technique; and whether the participants had any suggestions for improvement of the technique. The results will be presented relating to major themes presented in the data. When one participant mentioned more than one sub-theme in their total response to a question, parts of their response were segregated and coded according to the sub-themes. For this reason, the total number of responses in all sub-themes may total more than the total number of participants for a group.

Out of the eight participants in Group 1, six participants did not alter their study patterns as a result of their participation in the Second Life facilitation technique citing that they read the task before they met their partner online. This study habit being described as their normal habit: “I read the informations [*sic*] like for normal class” (Participant 1). Two participants altered their usual study patterns stating they thought about what their partner might say and what they may need to say, for example: “I read the information and thought about my answers before the lesson. It was more time because I usually don’t prepare for conversations with native Australian speakers” (Participant 5).

Seven of the eight participants in Group 1 responded that having the opportunity to speak to a native English speaker from Australia was a new experience. Examples of these responses being: “Well, the biggest experience would be the Internet conversation with native Australian speakers” (Participant 5) and “Yes, working and chatting with native speakers is really a new experience” (Participant 2). Five participants made reference to the virtual environment in their responses. One of these pointing out that the virtual environment and tasks offered a combination of fun and learning: “It’s unusual to have that kind of class, but in my opinion it’s better because it’s a perfect combinations [*sic*] of learning but having fun at the same time” (Participant 6). One participant had noted that it made her think about what being in Australia would be like and it provided the pseudo opportunity without the cost of an airplane ticket: “Yes. I liked visiting Australia in Second Life. It made me think for [*sic*] visiting Australia in normal life but tickets to Australia are too expensive in normal life so this was fun. I liked to see Australian things”

(Participant 7).

When asked about how they felt participating in the tasks with a native speaker of English, seven participants reported positive feelings: “I felt really good. Their English is almost the same as the U.K. and American English, so I didn’t have a lot of problems” (Participant 5) and “It was interesting. This is new [*sic*] dimension of communication because people were very nice” (Participant 3). One participant felt uneasy communicating with a native speaker expressing his frustration with how fast the native speaker spoke: “Some of them are speaking too fast and sometimes is not easy to understand words they are using” (Participant 4). One participant felt at ease with communicating in his target language but noted the pace of conversation when speaking in his native language with a learner was slow: “Communicating was easy in English but it was slow in Croatian” (Participant 8). Six participants commented on being in Second Life with five of the six making positive references about their experiences with descriptive words such as “fun” and “interesting” being used. Four participants described what they liked in Second Life, their comments are as follows:

(a) It was good to see things in Australia and Zagreb. My partner did not go to Zagreb before and was excited for this. We talked about some shops we could see in virtual Zagreb like Školska knjiga. It was fun. I read about things in Australia on the signs that were there. I liked the Opera House and in virtual Zagreb was a cinema (*sic*). (Participant 8)

(b) I also liked the Opera House. When we teleported there we could hear other people talking. It was interesting to listen to lots of native Australians talking like normal with each other. (Participant 6)

(c) It was good seeing Australia. My partner did not go to Croatia before and he liked this so much. He asked me questions about real Zagreb if it was like Zagreb in Second Life and many things were. They did a good job making this place. (Participant 7)

(d) It was strange at the start. Then I liked it. It was like real life and a computer game. I liked pretending to see the Opera House. (Participant 5)

Participant 4 commented that being in a virtual world had no influence on him.

The participants were asked to state what they felt were the benefits of using a virtual world like Second Life for language learning. Being able to communicate with native speakers of the target language and people from different parts of the world featured as a strong sub-theme for six participants, two examples of such

comments were: “It is very good speaking with native [*sic*] speaker. I could listen to accents and practise understanding Australian people” (Participant 8) and “Yes, talking to people whose knowledge of English is better than my own, or great is very good for learning. I think is [*sic*] the best way for [*sic*] learning English” (Participant 1). Six comments were made regarding what one could do in the virtual space or see in the virtual world, with some examples being: (a) “It was fun walking and finding places and shopping. When I saw the virtual Opera House I wanted to go there” (Participant 7); (b) “You can see some Australian places. It was fun going shopping. I cannot go shopping with native English speaker in my classroom” (Participant 3); and (c) “It was good seeing things in virtual lands. It would be good if it had different cities in Australia to visit. I could learn about Australian places and meet more Australian people” (Participant 8). Participant 3 found that doing something new and different was of benefit to him as it enabled him to meet new people and learn new skills. This aspect was considered fun. Participant 5 noted earlier in the interview that learning in Second Life was similar to a mix of real life and a computer game. Participant 8 felt the benefit was that the communication was for a real purpose unlike in the classroom where mock dialogues are played out. The tasks and the action required to complete the tasks were of benefit to one participant who stated: “(...) when my partner said directions and I had to find the place. So you can see things and do activities with your avatar and usually in the normal class you can’t do these activities. You can’t walk around these places” (Participant 6). The language that was displayed in the virtual world and the music that was played provided one participant with language of interest to her: “You can do a lot of things in it. You can walk, talk, read information on walls and posters. Some places had music” (Participant 5).

The participants were also asked which strategies they utilised if they had a problem understanding their partner. Group 1 participants had a higher level of English proficiency than Group 2 participants’ level of proficiency in Croatian. Six participants discussed in their responses what they did to help their partner as opposed to requiring help themselves. Seven responses were in the sub-theme ‘Instant Message (IM)’. If they or their partner could not understand what was said then the word was typed and sent via IM. There were two IM options used. One being messages typed in the virtual world and the other being messages typed and sent to their partner using Second Life’s IM tool. The strategies of repeating a word

and saying the word slowly each received three comments. The strategies of asking for meaning or guessing the meaning of the word both received one comment.

The cultural sub-themes that presented in the data were: positive experience; food; and work. All participants reported positively with regard to working in tandem with a person from Australia. Although the participants noted there were differences between the cultures, there were not any strong cultural disagreements that caused any problems during communication. One participant commented positively on their partner's motivation for learning stating that "It was good meeting Australian-Croats. It is good they want to learn the language of the parents" (Participant 5). Food was the next most discussed sub-theme with five participants commenting on either the types of food eaten or when food is eaten, for example: "He likes to eat different food like Japanese. There are not many different cultures in Split" (Participant 7). The food sub-theme was related to the work sub-theme with two comments relating to how Australian and Croatian work culture influence the participants' eating habits: "We finish work early, three or four for dinner. Australians finish work late I think five or six. They must eat late" (Participant 4) and "They work long hours and eat dinner very late at six in the evening" (Participant 3).

The most dominant sub-theme that presented in the data was technical issues. Seven participants cited connection issues, Internet speed, and log on failures as the most annoying issues with using Second Life. The sub-theme of not being able to see the person one was speaking with was discussed by two participants with one participant commenting that not seeing her partner lead to the experience not feeling real: "We have a false character, I'll probably never see the person with which I was speaking" (Participant 5). One participant felt that the method of communication led to feelings of mistrust: "Its pitfalls are that you can't know if person [*sic*] who is chatting with you is telling you truth [*sic*]" (Participant 2).

Only two participants offered suggestions for improving the technique. One participant commented that the technique itself was good but it would be much better if the technical issues could be fixed. The other participant felt that the technique could be improved by increasing the number of people that he could meet or speak with, stating: "Maybe we meet [*sic*] more people in Second Life" (Participant 8). The comment did not specify whether the people the participant wanted to meet should be language learners or people in Second Life in general.

4.1.3 Researcher's Observation Notes

The researcher made observation notes during the study. The main themes presented in the observation notes were: participant cooperation and motivation; technical issues; and virtual world related comments. At the beginning of the study, the participants had made their Second Life accounts on campus at the University of Split. This led to an unforeseen problem in which the Second Life system recognised too many avatars (more than the allowed amount for one person) being logged in at the same time using the same Internet Protocol (IP) address. The Second Life system viewed these accounts as being made by one person who may be trying to create an army of people to use in Second Life instead of a group of students using Second Life from one educational institution. As a result, the participants were automatically logged off the system every five to ten minutes. After the first session, the researcher contacted technical support for Second Life and had the issue resolved. There was an issue with log on failures at another point during Treatment Period 1 that was the result of a technical issue in Second Life. This issue lasted 24 hours and happened to coincide with a facilitation task meeting time. During this time, the affordance presented itself of having other random users in Second Life with a Croatian joining in to help one of the Australians whose partner was having difficulty logging on due to technical issues. The random Croatian avatar saw the group in Second Life and asked what they were doing. This avatar then offered his assistance and spoke with the participant who was missing a partner.

4.1.4 Triangulation of Results and Summary

In this section, a summary of the results is presented relating to the research questions. The first research question asked the participants' perceptions of using Second Life as an effective tool for learning. The qualitative data indicates that they perceived it as an effective tool: "In my opinion this learning technique is good" (Participant 2). Being able to communicate with native speakers was viewed as a main advantage as it provided the participants with a tutor who had more knowledge of the target language and enabled them to improve their skills in speaking and listening. Aspects of the virtual world were discussed that influenced their learning: "You can do a lot of things in it. You can walk, talk, read information on walls and posters. Some places had music" (Participant 5). The participants felt it made their learning "interesting" with this word being used nine times and the word "fun" ten

times throughout the interviews. Only one participant said the virtual world had no effect on them although they were able to identify the benefits of participating. Participating in the Second Life facilitation technique had positive effects on the participants' development of listening comprehension as demonstrated by the pre-test and post-test results comparison (two-tailed p value of 0.002) showing statistically significant positive change after participation in the technique. The affordances of the Second Life facilitation technique were identified in the benefits discussed and strategies used. The benefits were: fun, new and different; interacting with native speakers of the target language; the activities; cultural exchange (as demonstrated in answers from Question 8 and Question 9 of the interview); participating in activities virtually that one is unable to do in normal life such as shopping with a native speaker of the target language; game like attributes; language displayed and music played in Second Life; and learning felt more real and authentic. The strategies identified were: utilising the IM facility to support learning; asking for meaning; guessing; repeating a word; and speaking slowly.

4.2 Treatment Period 1: Group 2 Croatian Second Life

4.2.1 Pre-test and Post-test Results

The results of the pre-test for the CSL learners indicated that the content planned for use during the Second Life facilitation technique was aimed at an appropriate level. Two participants received a score of 0 or 1. These participants were still included as the content was aimed at a basic level. Participant 12 who received 80% was encouraged to use the basic questions as a guide, practise a variety of sentence structures and extend her vocabulary. As with their partner group, there were eight participants who completed the program in Group 2. Two participants dropped out of the study from Group 2 after initially providing consent and beginning the Second Life facilitation technique citing they felt the requirements of the tasks were too difficult for them at that time in their learning development and were interested in trying in the following year. They had been given participant numbers 19 and 20. Due to their removal from the study, their pre-test data was removed as well as their partners' data from Group 1 (Participant 9 and Participant 10) who as a result were unable to continue their participation during Treatment Period 1. With the participants who completed the whole treatment period, pre-test and post-test treatment scores were analysed using a paired t -test. The two-tailed p

value (0.0001) was statistically significant demonstrating positive change following participation in the Second Life facilitation technique. This value indicates that improvement in listening comprehension was made after participating in the Second Life facilitation technique.

Table 4.3
Group 2: Participants' Results

Participant	Pre-test score /10	Post-test score /10	Gain scores
11	1	4	3
12	8	10	2
13	6	8	2
14	6	9	3
15	5	9	4
16	0	3	3
17	7	8	1
18	3	6	3

Table 4.4
Group 2: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	4.50	7.13	
<i>SD</i>	2.88	2.53	
<i>SEM</i>	1.02	0.90	
<i>p</i> value			0.0001
No. participants	8	8	

4.2.2 Interview Results

The results of the first three questions relating to learning motivation, prior knowledge and self-assessment of language ability demonstrated the profile of Group 2's learners. The three main motivational sub-themes were: family heritage; having married into a Croatian family; and learning Croatian for travel purposes. Family heritage was the most cited reason with five participants having one or both parents being born in Croatia: "My father is Croatian and my mother is Australian. My dad didn't teach me Croatian when I was growing up" (Participant 12). One of these participants viewed being able to speak Croatian as an important skill envisioning a

visit to Croatia in his future and gaining his Croatian citizenship: “My parents are Croatian and I want to get my citizenship soon. I want to go visit my family over there. I went when I was five but I can't really remember much about it” (Participant 17). One participant cited that she wanted to learn to teach her children even though she was not taught as a child. Another had Macedonian heritage and was learning due to “general interest” and wanted to learn Russian next as a second major in an Arts degree. Two participants had married Croatians and wanted to learn to communicate with their new family members. Five participants stated that they did not have any or they had very little prior knowledge of Croatian. One participant explained that he had previously completed a subject in Croatian and two participants said they had a small amount of knowledge of the language: “I knew a little bit like kako si? [How are you?], dobro [good] and hoćeš li kavu? [Do you want a coffee?]. That's sort of it really: just general stuff. I didn't have real conversations with people” (Participant 17). Five participants believed reading to be their strongest skill, two stated listening and one said reading and listening.

All participants in Group 2 put in extra time preparing for their facilitation technique tasks. Two participants reflected how the one on one situation with a native speaker motivated them to put more time into their preparation: “I was fearful that I wouldn't be able to make conversation at all” (Participant 11) and “If I forget something in class I would just not offer an answer, but in these activities you know you need to perform. You can't pass on the answer” (Participant 17). The techniques the participants used to assist them in preparing for tasks included: reading the information; formulating answers to questions; writing down answers to practise; keeping a list of answers near them during the task; memorising words; and practising with another person before participating in the task.

Being in the virtual world featured as a major sub-theme among seven participants' comments. The main comments regarding being in a virtual world included: learning while doing; role playing; meeting Croatians; pressure to perform being different than in the classroom; and practising for real situations. Two examples of participants' perceptions are as follows:

It was 100% different to the standard classroom. Unlike in the classroom where we read the dialogues from the book taking turns pretending to be the characters in Second Life we lived the dialogue. In some ways it was staged but the questions were relevant. The shopping activity was more natural. The directions activity was staged but good practice for a real situation.

(Participant 16)

I don't usually get to speak that much in Croatian. In the classroom we use the textbook but in Second life we practised while we learnt. I liked being able to do and learn instead of just listen and learn. I think sometimes it's hard because we have class after work and I am quite tired and fade a bit so this was refreshing. (Participant 17)

When asked how they felt completing the tasks, two participants stated that at first they had felt worried and afraid. They then felt relief noting that it was not as bad as they had originally thought as they did not have anyone staring at them and they could resort to an online dictionary and notes if they needed extra help. Five participants described their feelings specifically relating to being in the virtual world and aspects of the world they liked. In the beginning some felt strange and "weird". One participant noted that it made them want to visit Croatia and see if the virtual layout in Zagreb Second Life was really similar to the layout of real Zagreb: "It made the activity feel more real. I also enjoyed being a tourist in Zagreb and seeing what it is like. Seeing the shop names and other things added interest to the experience" (Participant 16). One participant reflected on the increased cognitive load requirements of listening in a virtual world: "It was strange listening in Second Life at first because there are many other factors to think about in there like how to move, the location and functions. Once you got used to those aspects it was easier to focus. It was interesting" (Participant 12). One participant commented that a learner would get more benefit from the tasks once obtaining a greater knowledge of the language. He admitted to speaking in English often when he could not express himself. One participant highlighted how speaking to a native speaker was a new experience for her: "It was very interesting. I imagined learning Croatian to be just practising in class. I didn't know that we would have the opportunity to meet Croatians from Croatia and make friends with them. It was fun" (Participant 15). One participant commented on the benefit of speaking with a native speaker.

Two participants commented that they visited Second Life in their own time on top of the designated tasks and met other Croatian native speakers who were not their partners from the study with whom they could practise their communication. One of these participants explained the experience as: "I also met two Croatians in there from inland Croatia. I didn't really follow the plan as after I spoke some Croatian we spoke in English. Their English was really good as they are learning it

from primary school” (Participant 16). Four participants found the tasks to be of benefit to their learning. Participant 17 explained the experience: “You had to go around and do activities and I probably ended up staying on there longer than I had to because I was engrossed in what I was doing. And you could get addicted and stay all night”. Two participants felt speaking with native speakers was a great benefit. Four participants felt that role playing assisted their learning process, with one participant explaining: “There are many advantages as you have to do what you are learning and you can’t just sit back and listen in class” (Participant 18). All eight participants found aspects of the virtual spaces of benefit. Participant 18 explained how shopping had real life aspects to it in Second Life:

I liked being able to look at virtual versions of what were learning about. The shopping activity was like this as we went into real shops as real money can be spent on avatar's clothes there. I didn't. We found a free shopping location and got clothes from there so we didn't look like newbies. (Participant 18)

The language displayed on signs and shop fronts were of interest to four participants. Participant 18 also pointed out the benefit of having the responsibility of learning placed on the SL learners ensuring that they perform.

All eight participants cited using more than one strategy; thus, the number of cited strategies overall was more than the number of participants in the group. Repeating the word and using IM were the most popular sub-themes with six participants using both of these strategies. The benefit of being able to save the new word for later featured for the use of IM. Using an online translator, such as Google Translate, or an online dictionary was included by six participants. Speaking slowly assisted two participants and one found reviewing notes to be helpful.

All participants commented positively about interacting with the participants from Split. Cultural learning was considered as a benefit. Two participants who had married into Croatian families commented that it provided them with an opportunity to learn more about the culture “Again it was a great opportunity to learn about my wife's family's culture and it gave me something to talk about with them that they are interested in” (Participant 11). Five comments were made regarding gaining an understanding of the culture of the participants’ parents. The participants were able to make comparisons between what they learnt from their parents and what is happening in modern day Croatia: “Some things have changed since my dad left

when it was under Yugoslavia's rule" (Participant 18). Two participants commented on the friendships they made and having made a friend from their own cultural background, with one of them stating: "I want to go to Croatia so it was good making a friend there to visit" (Participant 14). Participant 13 noted that the experience made them feel more in touch with their Croatian culture.

The main sub-themes regarding the negative aspects of the technique that presented in the data were: technical issues receiving three comments; not feeling real gaining one comment; wanting to meet others acquiring one comment; not being able to see the person was commented on twice; and no negative aspects as expressed by two participants' comments. The three comments made related to technical issues and focused on the problem of being logged off and having slow Internet speed. One participant had commented earlier on in the interview that the virtual representation of Australia disappointed him "The Australian environment was not well represented. I felt as though it didn't show the best of Australia" (Participant 13). The participants were unable to access nonverbal cues such as facial expressions which appeared to influence their feelings of closeness to their partner as Participant 18 explained: "It feels a little bit distant sometimes". One participant explained the anxiety he felt when the tasks took place at the university's computer lab with other participants and the lecturer close by: "It was hard with the others in the room. It would be better if it starts as a homework task. This way there is no need to stress about making error with everyone and the lecturer around you" (Participant 11).

When asked how the technique could be improved, Participant 11 explained that if they were able to complete the tasks at home, the pair groups would also have the opportunity to stay online in conversation with their partners for longer periods of time if desired, as there was a limit to the amount of time they were allocated at the computer lab. Participant 15 wanted the extra help from their partner to remain an available option after the treatment period had ended. Participant 14 and Participant 18 wanted to be able to see a photo of their partner. Three participants did not offer any suggestions for improvement. Participant 13 suggested having a video clip of the groups of learners available to view.

4.2.3 Researcher's Observation Notes

Aside from technical difficulties reflected on in Section 4.2.2, in particular

for this group it was noted that they were open minded towards attempting the new technology. The comment provided during an interview regarding the possibility of completing the tasks during participants' personal time was considered in relation to the issues that occurred with using the technology at each university. In consultation with the lecturer from the University of Split and the lecturer at Macquarie University, it was decided to take Participant 11's suggestion on board and have the tasks conducted during the participants' personal time for Treatment Period 2.

4.2.4 Triangulation of Results and Summary

The qualitative data demonstrated that participants valued their experiences and believed the Second Life facilitation technique to be of benefit to their development with one participant even asking that it be an option available throughout normal learning periods. This was evident in their multiple reflections on the Second Life learning space throughout different parts of the interviews and discussions of what it provided them as learners. The participants provided many positive comments throughout, for example: "it was a good experience for learning" (Participant 18). The participants placed emphasis on learning about their cultural background and their parents' or partners' culture and enjoyed having the opportunity to ask questions relating to culture: "I could ask numerous questions about anything Croatian" (Participant 13). The quantitative results supported the positive gains and the benefits of using the technique for the development of listening comprehension presented in the qualitative data with the pre-test and post-test results comparison (two-tailed p value of 0.0001) indicating statistically significant positive change after participation in the Second Life facilitation technique. The affordances of the technique identified by Group 1 were also represented in the results for Group 2 with the addition of the affordance of learning about one's own cultural background. The participants found emotional benefit in being able to virtually walk around a representation of Zagreb which contained elements of real Zagreb such as photos of shop fronts in real Zagreb being used in the Second Life version and being able to do things that people in Zagreb do, for example: "I liked meeting up at the clock where people in Zagreb meet" (Participant 12).

4.3 Treatment Period 2: English Group 3 Skype

4.3.1 Pre-test and Post-test Results

Participant 2, Participant 3, and Participant 8 from Group 1 did not continue in the study during Treatment Period 2 and Participant 21 joined the study as a member of Group 3. Participant 4's data was removed from the results as he received 100% accuracy on the pre-test. As a result, this participant received modified content. The participant's pre-test and post-test results were removed from the analysis but his interview data remained in the data set as his experience utilising the tool was viewed as relevant. The pre-test scores in Table 4.5 demonstrate that the content was not difficult for these learners. All participants followed the same content as a basis with instruction to extend their conversations. A paired *t*-test was used to analyse the pre-test and post-test treatment scores. The two-tailed *p* value (0.0327) was statistically significant which indicated that positive change occurred following participation in the Skype facilitation technique.

Table 4.5
Group 3: Participants' Results

Participant	Pre-test score /20	Post-test score /20	Gain score
1	19	20	1
5	17	18	1
6	17	17	0
7	17	19	2
21	18	20	2

Table 4.6
Group 3: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	17.60	18.80	
<i>SD</i>	0.89	1.30	
<i>SEM</i>	0.40	0.58	
<i>p</i> value			0.0327
No. participants	5	5	

4.3.2 Email Reflections

The participants were not consistent in providing email reflections or often

provided simple reflections such as “Everything went well this week” (Participant 21). Reflections of significance offered by this group focused on the extra help that the ESL learners provided to their partners. The participants provided extra help with the task work by staying online for longer than the required time, practising similar dialogues more than once and helping with homework tasks. The same comments were also discussed during the interviews and have been included in the interview data.

4.3.3 Interview Results

The first two interview questions relating to the participants’ motivation for learning their target language and their prior knowledge of the language were omitted from the interview for Participant 1, Participant 5, Participant 6 and Participant 7 who took part in the Second Life facilitation technique during Treatment Period 1. For these participants, an extra question was added to the end of the interview asking them to compare their experience of learning using the Second Life facilitation technique with their experience of learning with the Skype facilitation technique. The results to the extra question are presented in Section 4.11 during the Stage 3 analysis of the data. Participant 21 from the University of Split entered the group as a result of Participant 3 dropping out. The new participant in the study, who was asked the first two questions, cited her motivation for learning English as being “Today English is the most needed language” (Participant 21). She explained that many people in Croatia learn English nowadays at school. She had attended a private school for English and had been learning since primary (elementary) school. All participants were asked what they believed their current strongest skill in English was which resulted in two participants (Participant 4 and Participant 6) citing the skill of speaking. Participant 1 stated listening and three participants (Participant 5, Participant 7, and Participant 21) provided a multiple skills response, for example: “Listening and writing” (Participant 21) and “Writing and reading and watching and understanding movies” (Participant 7).

A new sub-theme discussed was preparation to assist one’s partner. All participants cited that they did not complete any extra preparation work for their part in the task work aside from reading over what they had to do. Nevertheless, four participants took part in extra preparation to assist their partners from Treatment Period 1 in preparing for their normal class work in Croatian as well as the

facilitation technique tasks with one participant having commented: “I met my partner before to improve his Croatian. He is a beginner and very bad in all areas. I wanted to help him because he is learning for his family and that is good” (Participant 1). Participant 1, Participant 4, Participant 5 and Participant 7 also provided assistance to their partner prior to the commencement of tasks.

Three participants commented that speaking with a native speaker was a new experience in relation to the normal classroom pointing out the benefits of communicating with native speakers. Participant 1 and Participant 5 commented that it was positive to see who their partner was: “it was a very good opportunity to see my partner and meet him after Second Life activity” (Participant 1). Three comments were made relating directly to the use of Skype. One participant commented that using Skype was not a new experience although he/she had never used it in the classroom before. Another participant commented on the methodology noting: “It was an interesting method for learning” (Participant 21). Participant 6 expressed that Australians were fun to communicate with. When asked explicitly about their feelings, five participants expressed their positive experience of speaking with a native speaker of English. Four participants made reference to listening to the Australian accent with one participant describing the Australian accent as “an interesting mix of American and British English. I like [*sic*] Australian accent” (Participant 21). Two participants made reference to Skype as a tool: “Skype was very useful and practical” (Participant 6). Participant 1 noted that the tasks used during Treatment Period 2 were easier than for Treatment Period 1 resulting in her feeling more relaxed during conversations.

When the participants were asked what were the benefits of the Skype facilitation technique, the sub-themes that presented in the results were: being able to speak with a native speaker which was viewed as an advantage by five participants; the tasks themselves used in the facilitation technique which received three comments; being able to see your partner which gained three comments; and Skype having the feature of allowing a person to see if their partner is online at other times was highlighted by one comment. Two participants commented on the feeling of closeness that Skype gave them with Participant 5 having stated that being able to see her partner made the actual distance between them not feel so far: “I am sitting in a room with them, in front of me, just on a computer” (Participant 5). Participant 4 explained that Skype allowed participants “to see them and know who they are”

(Participant 4). One participant commented on the ease with which they could see if their partner was online at other times to communicate with stating that “Skype is easy because I can see if (...) [partner’s name removed] is there on the Internet when I am on and say hello at other times” (Participant 5).

Five participants felt that they did not require the use of any strategies to assist their own learning with all five commenting on how they used strategies to help their partners. Participant 6 explained that she provided online dictionary links to her partner when required. One participant commented on the difficulty in explaining her native language in her target language and how she negotiated the meaning of words and sentences with her partner to overcome comprehension problems: “Problem for me is explaining Croatian on English [*sic*], but together we get to the solution: two heads are better than one” (Participant 21). Participant 1 and Participant 5 used repetition to assist their partners’ comprehension. One participant highlighted her creative approach to clarifying understanding “I used my hands to explain and I wrote it down on paper and then showed him the paper to the camera” (Participant 21).

Question 8 and Question 9 from the interview relating to interacting with someone from a different culture were not used with Participant 1, Participant 4, Participant 5, Participant 6 and Participant 7 who took part in Treatment Period 1 and had answered these questions previously. Participant 21 who was new to the study was asked her feelings relating to culture and cultural differences. This participant noted that she had already been to Australia on holiday and that the experience of speaking with her partner via Skype reminded her of her time in Australia. Participant 21 noted that her experience was: “Good. I have been to Australia for holidays and travelled to the large cities Adelaide, Melbourne, Sydney and Gold Coast. I already saw what Australia is like” (Participant 21). Participant 21 was the only participant who had visited Australia before joining the study.

The sub-themes that presented in the data were: technical issues receiving four comments; feelings of embarrassment gaining one comment; and Participant 6 and Participant 21 reflected that the technique did not have any pitfalls in their opinion. The main technical issue appeared to be Internet speed. One participant commented on her perception of her partner’s feelings explaining that “my partner did feel ashamed for the [*sic*] Lesson 1 and 2” (Participant 1). When asked how the Skype facilitation technique could be improved, four participants cited that they did

not have any suggestions. Participant 4 and Participant 6 offered ideas. Participant 4 suggested that more grammar tasks be provided to beginner CSL learners. Participant 6 commented on how the CSL learners in Australia needed help from Croatians using these types of tasks as in Croatia ESL learners have access to more resources such as movies in English played on the television.

4.3.4 Triangulation of Results and Summary

The content set was easy for the participants from Group 1 to comprehend as reflected in the pre-test results ($M = 17.60$) and the participants' comments during the interview. The content set was used by request from the lecturer of the course to improve the participants' conversational skills. Learners practised their sentence construction and listening comprehension. Interview data indicated that the participants found benefit in practising listening to native speakers of English and believed that doing so was effective for assisting their listening comprehension development. The participants found the benefits of the Skype facilitation technique to be: having access to native speakers of English; being able to see their partner; experiencing feelings of closeness in proximity to their partner; participating in useful tasks; using easy to master technology; and being able to access their partner at other times by seeing when they were online. The strategies used were: using an online dictionary; repeating words; negotiating meaning; and using hands and paper to demonstrate meaning. The participants who took part in Treatment Period 1 as members of Group 1 (Participant 1, Participant 4, Participant 5, Participant 6 and Participant 7) spent more than the required time online with their partner helping their partners to improve their skills in Croatian in their own time between Treatment Period 1 and Treatment Period 2.

4.4 Treatment Period 2: Croatian Group 4 Skype

4.4.1 Pre-test post-test Results

Pre-test scores ranged from 2 out of 20 to 9 out of 20 with a mean score of 5.83. The results of the pre-test indicated that the content was at an appropriate level and not too easy for any participant. Participant 11 and Participant 16 received low scores on the pre-test. As a result, advice was provided to their partners to use the guiding tasks and questions verbatim in the first instance to allow the learner an opportunity to hear what they had practised exactly. The pre-test and post-test

treatment scores were analysed using a paired *t*-test. The two-tailed *p* value (0.0019) was statistically significant which indicated that positive change occurred following participation in the Skype facilitation technique.

Table 4.7
Group 4: Participants' Results

Participant	Pre-test score /20	Post-test score /20	Gain score
11	3	7	4
13	6	9	3
14	8	11	3
15	7	11	4
16	2	3	1
17	9	11	2

Table 4.8
Group 4: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	5.83	8.67	
<i>SD</i>	2.79	3.20	
<i>SEM</i>	1.14	1.31	
<i>p</i> value			0.0019
No. Participants	6	6	

4.4.2 Interview Results

As all participants in Group 4 also participated in the Second Life facilitation technique as members of Group 2, they were not asked the first two questions of the interview regarding their motivation for learning and their prior knowledge of Croatian. Question 7 and Question 8 regarding cultural differences when interacting with a person from Croatia were also omitted. The extra question comparing the use of the Second Life facilitation technique with the Skype technique used for Group 3 was also utilised for Group 4 participants. The results from the extra question are presented in the Stage 3 analysis. When asked what they believed to be their strongest skill, two participants said reading, two participants provided multiple skill responses such as listening and speaking or reading and writing, and one participant stated listening.

All six participants responded that they put extra effort into practising and learning Croatian during the facilitation technique. Four participants also continued to meet their partner at times between Treatment Period 1 and Treatment Period 2. Two participants commented on receiving extra help regarding their normal class work and homework in between and during treatment periods. One participant noted that it gave him a real perspective on what he was learning “It gives you a wake-up call into learning. And they tell you everything is wrong” (Participant 14). Participant 17 recalled the difficulty he had understanding his partner during Treatment Period 1. Following the completion of the Second Life facilitation technique, he put much effort into learning the vocabulary and noted: “my partner and I kept working together after the Second Life activities finished. Getting that extra help for quite a few months has helped me a lot. I'm remembering words and they are getting easy to recognise” (Participant 17).

Four participants commented on the positive influence that having one on one directed tutoring gave them with one stating that “it was different of course. I had a native speaker all to myself” (Participant 16). Participant 11 compared learning with a textbook to learning with a native speaker who is using the language for real purposes in current day Croatia. He also noted that his wife’s family use some words differently to how his partner used the language believing the language used in Australia may be out dated. He recalled one incident:

Like, when we talked about what we wore to the concert, I said blue gaće [blue underpants] but (...) [name omitted] told me that means underwear not pants and pants are hlaće [trousers]. I also learn how to speak formally in class and this was more casual (Participant 11).

The participants were asked how they felt during the tasks using Skype as a tool. Four participants provided positive responses. Participant 17’s comment portrayed positive feelings related to learning: “Loved it. I was so focused on improvement and this gave me chance to focus my effort on what I know and need” (Participant 17). Two participants responded to having some negative feelings as well. Participant 17 commented about feeling frustrated when communication broke down. He also noted that, if one’s partner is patient, it assists the circumstance. Participant 16 reported feeling intimidated and afraid during the first few lessons. He stated that after the relationship developed these negative feelings disappeared. Participant 11 explained that Skype was convenient to use.

The main sub-themes that presented were: speaking with a native speaker as discussed by two participants; seeing your partner received four comments; the tasks being beneficial and requiring preparation also received four comments; and having fun was highlighted by one participant. Comments were made that it was good for the participants to see who their partner was. Participant 16 and Participant 17 focused on the use of facial expression and being able to use their partner's facial cues to guide them in their comprehension: "Well I could see straight away if I said something stupid from my partner's facial expression. That was funny" (Participant 17). Participant 13 enjoyed having her partner show her objects using the video-conferencing capabilities that Skype offers.

When asked what strategies were used when the participants had difficulty comprehending their partners, the most commonly used strategy that received four comments was repeating a word. Using online support such as an online dictionary or an online translator received three comments. The online tool 'Google Translate' featured in two of these responses. The strategies of sending the word in written form via IM or writing the word down each received two comments. One comment was made regarding saying the word slowly. All participants used more than one strategy and sometimes in combination: "My partner repeated words, and slowly, and I recorded them" (Participant 16).

Participant 13 and Participant 15 explained that technical aspects were pitfalls of the technique for them with complaints focusing on connection speed and delay/lag of the video-stream. Participant 15 felt that the structure of the Skype facilitation technique was more "rigid and structured" than that of the Second Life facilitation technique. Participant 17 jokingly commented that he needed to look good for each meeting using Skype. Participant 16 stated that he believed there were not any pitfalls of using the technique. Participant 11 believed that the ability to see one's partner on Skype has the potential to lead to feelings of nervousness during the first few tasks.

When asked to offer suggestions of improvement for the technique, Participant 13 and Participant 16 did not have any suggestions. The most suggested sub-theme receiving three comments was to expand or extend the use of Skype as part of the normal class. Participant 15 offered that more questions should be made available to those who want to extend their practice sessions and Participant 11 would like more opportunities to connect with the tandem learning experience

running for a longer period of time.

4.4.3 Triangulation of Results and Summary

As Treatment Period 2 started approximately two months after the Australian semester commenced for the learners of Croatian, by the time they began the facilitation technique they had covered the content once already in class. Four participants also received help from their partner. The effect of the extra work undertaken was evident in the pre-test scores that demonstrated the development of prior knowledge of the content. The participants commented that the tasks were beneficial for their learning and utilised their partner's help in other areas by working on grammar and homework tasks as well as the Skype facilitation technique tasks. Quantitative data supported the qualitative data demonstrating that participation in the Skype facilitation technique led to improvement in listening comprehension with the comparison between the pre-test and post-test providing a two-tailed p value of 0.0019 that is statistically significant. The benefits of the Skype facilitation technique identified during the interviews were: seeing your partner; speaking with a native speaker allowing for accurate learning of the current form of the language; learning about culture; needing to prepare for tasks, and having fun while participating in the tasks.

4.5 Treatment Period 3: English Group 5 Second Life

4.5.1 Pre-test and Post-test Results

Group 5 consisted of ESL learners from the University of Mostar. Two thirds of the group members (Participant 23 and Participant 24) scored 100% on the pre-test resulting in their data being removed from the quantitative analysis. Participant 22 achieved a score of 16 indicating that the content level was appropriate. As only one participant's results were included, further statistical analysis was not possible for this group at this point.

Table 4.9

Group 5: Participant's Results

Participant	Pre-test score /20	Post-test score/20	Gain score
22	16	18	2

4.5.2 Interview Results

All three participants were motivated to learn English considering it to be a language for world communication. Participant 22 explained that she wanted to learn English due to it being a major language for communication within the EU. English was viewed as a useful tool “for business and tourism” (Participant 23). Each of the participants acknowledged that they had been learning English at school before entering university. Participant 23 considered reading her strongest skill and Participant 24 considered listening to be his most developed skill. A participant indicated that she was proficient at all skills except for writing: “spell [*sic*] the words is hard on [*sic*] English” (Participant 22). All three participants read the information provided before the task as preparation.

Two main sub-themes were presented in the interview data. The first main sub-theme that received two comments was having the opportunity to meet and speak with a native English speaker and listen to an Australian accent. The second main sub-theme that also received two comments was being in a virtual world with a participant stating that the experience was a “good opportunity for a learner to try a new method of learning language” (Participant 22). The main sub-themes relating to how the participants felt learning in Second Life were: enjoyment and positive learning; and exploring cultural aspects.

A main sub-theme that presented which received two comments was the opportunity to speak with a native speaker. Participant 22 noted that, although the lecturer of the English course was a native English speaker from Australia, the opportunity to speak with her and practise one on one was not as great as the opportunity provided during the Second Life facilitation technique tasks. Another sub-theme that gained one comment was that the Second Life facilitation technique tasks had enough flexibility to provide the learner with what she personally needed: “Second Life is useful for a language learner to practise the language with a native speaker and practise what you need” (Participant 22). Participant 22 and Participant 23 both commented on being able to see aspects of the virtual environment and objects that were being discussed as helpful to the learning process, while Participant 24 enjoyed learning the new aspects of the technology as well as the language lesson. Participant 23 enjoyed role-playing real life situations such as the shopping task that was viewed as assisting learning in an enjoyable and relevant manner. Two participants commented that Second Life gave them the opportunity to learn about

the target culture and other themes that were not covered in the standard class: “I could learn new things about Australian art and other themes that the professor does not teach us in class” (Participant 22) and “I learnt new things and some new English words” (Participant 24). All three participants made positive references to cultural exchange. One participant found benefit in the structure and requirements of the tasks: “The benefit to have visual representation of activity [*sic*] is helpful for the learners. (...) The shopping activity was similar to real life with different clothes” (Participant 23). For Participant 23, the tasks were fun and enabled her to use language in what she described as a “real situation”. To assist their learning or the learning of their partners, all three participants used the strategy of repeating the unknown word for clarification. Participant 23 also used dictionary links and Participant 24 also used the IM function stating that it gave his partner the opportunity to save the word for future reference and learning. Participant 22 commented that the environment was used as a strategy to help the learner.

Within the group of responses relating to cultural themes, four comments focused on learning about the target language culture, two comments indicated the advantages of speaking with native speakers and two participants made positive reflections about the Australian culture. The discussion around the differences between the cultures occurred with one participant commenting that: “Australia has more freedom for artistic expression, who you are, you are more free. Individualism is accepted” (Participant 23). Other positive comments included: “Positive exchange of ideas of culture. This is an interesting theme” (Participant 23) and “My partner was helpful and it is a friendly culture. I like multicultural Australia's community with acceptance [*sic*]” (Participant 22). The level of multiculturalism within each country was discussed with comparisons being made “Mostar is some [*sic*] multicultural community but there is [*sic*] more in Australia” (Participant 22). Comparisons were also made between growing up in an Australian-Croatian home and a Croatian home in Mostar: “Yes, I feel that my partner is different but she has [*sic*] Croatian father but it is different for her because she didn't grow up here, she had different [*sic*] culture around her” (Participant 24).

All three participants in Group 5 noted that the Internet connection caused at some point issues during their meetings with their partners. Participant 23 commented that it was not the Second Life tool or technique that was at fault but the Internet connection speed that hindered the use of the tool. Participant 24 noted that

the connection was not always bad, but if it was slow the sound would be delayed. Only Participant 23 offered a suggestion for improvement regarding the technique, with the suggestion being: “make better [*sic*] connection” (Participant 23).

4.5.3 Triangulation of Results and Summary

The group reflected on how the Second Life facilitation technique was interesting and enjoyable although it made their beginner level partners’ work hard during the sessions. The comments provided during the interview demonstrated that the participants perceived the technique to be effective for language development as well as learning about other people’s cultures. As only one participant’s quantitative results could be included for this group, further statistical analysis was not possible during Stage 1. The benefits of the technique were identified as being: speaking with native speakers; accessing individualised learning; utilizing a visual environment to support learning; role-playing real life situations; learning about the target culture with real examples and discussions; participating in tasks that felt real and authentic; and participating in the tasks themselves was viewed as beneficial. The strategies used by the participants in Group 5 were: IM function with the opportunity to save the word for later; and being able to provide dictionary links; and using the virtual environment to assist comprehension. The only pitfall discussed was the technical issues of having Internet connections.

4.6 Treatment Period 3: Croatian Group 6 Second Life

4.6.1 Pre-test and Post-test Results

Pre-test scores ranged from 8 out of 20 to 11 out of 20 with a mean score of 10.33. The results of the pre-test indicated that the content was at an appropriate level for all participants. The pre-test and post-test treatment scores were analysed using a paired *t*-test. The two-tailed *p* value (0.0153) was statistically significant which indicated that positive change occurred following participation in the Second Life facilitation technique.

Table 4.10

Group 6: Participants' Results

Participant	Pre-test score /20	Post-test score /20	Gain score
31	11	14	3
32	12	14	2
33	8	11	3

Table 4.11

Group 6: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	10.33	13.00	
<i>SD</i>	2.08	1.73	
<i>SEM</i>	1.20	1.00	
<i>p</i> value			0.0153
No. participants	3	3	

4.6.2 Interview Results

All three participants explained that their motivation to learn Croatian stemmed from having Croatian heritage. Participant 32 and Participant 33 each had a father who was Croatian. They had no prior knowledge of Croatian before entering the course. Participant 31 had both parents who were Croatian and explained that her parents had taught her some Croatian growing up but she had forgotten a great deal of it and could not construct sentences accurately. She explained that she could understand a considerable amount of Croatian but could not produce grammatically correct sentences. When asked what their strongest skill in Croatian was, Participant 31 answered reading, Participant 33 answered listening and Participant 32 stated reading and listening. All participants reported that they worked more than usual on preparing themselves for the task work as part of the Second Life facilitation technique than they did for normal classes. Two achieved this by reading through the task, three participants practised their pronunciation and learning the words, and one participant practised with another person who was not participating in the tasks.

The participants expressed how they felt using Second Life in relation to the influence it had on some of the participants' learning tasks. One participant commented that they practised more due to their fear of making errors: "I was scared of stuffing up too much when I was talking to my partner" (Participant 33). All three

participants noted that it was a new and novel experience. One participant commented that the tasks provided: “balance from formal learning and then casual learning” (Participant 33). For one participant it was a reminder of a time when she had been to Dubrovnik in Croatia: “It was kinda cool walking around and it made me feel like I was there again. Well actually it made me want to book my holiday. Yeh, I liked it” (Participant 31). The opportunity to pretend to be in a Croatian location was appealing to one participant who had the chance to meet a virtual local who was the owner of the Dubrovnik location in Second Life noting:

I haven't been to Dubrovnik, so pretending to be there was awesome, and the woman who owned it was in there making Rihanna skins, that was weird. We spoke to her quickly when we were doing the finding objects activity. It's a totally different existence in there for these people. It was an eye opener for me. (Participant 32)

The main benefits identified by the participants were: making a connection with native speakers; role-playing was commented on once; hearing music in the virtual world featured once; meeting other avatars randomly also received one comment; participating in cultural exchange was mentioned throughout the interview by all three participants; and maintaining one consistent partner was stated by Participant 32. Two participants stated that the tasks themselves were of benefit. The words “game”, “adventure” and “play” featured in Participant 31's and Participant 33's responses with one participant commenting: “It made us use our language to achieve something and we needed to find a way to achieve” (Participant 33). Another comment that demonstrated the participants' experience in relation to the virtual world and using the environment to listen and identify language was:

It was like being in a game scene in some ways but real in that there wasn't an actual game. I thought the graphics were great especially Dubrovnik in there. They had folk music playing in the background and you could see other Croatians, well, I think they were Croatian. It sounded like they were speaking Croatian. (Participant 31)

When asked which strategies the participants used to assist them with their listening comprehension in Second Life the main sub-themes that presented were: ask for meaning, commented on by two participants; repeat the word was mentioned three times; use IM received two comments; use an online dictionary at the same time gained one comment; speak slowly received one comment; and utilise the virtual environment also received one comment. Participant 31 commented that her

partner used the virtual environment to assist meaning clarification by directing her to look at various objects with the aim of providing further information about the new words discussed.

In this theme, comments were segregated into sub-themes. Work featured as a sub-theme with Participant 32 noting that employment was difficult to find in Mostar and then comparing the situation to employment in Australia explaining that it was not easy to find in Australia either. The school system was discussed with one participant explaining that in Mostar there are more school subjects and the style of education was viewed as different with students needing to memorise textbook information. The similarities between the two schooling systems were found regarding the method in which religion is taught in state schools. Two comments were made on how the task work was a positive experience, for example: "... sharing each others' stories about life where we live" (Participant 31). All three participants commented that there were differences between the cultures. For example, "There is great pressure for them to look good and wear the latest brands and other things. Women are rarely fat" (Participant 32). One participant reflected on the positive nature of the differences: "They were good differences that made the whole adventure interesting and something new" (Participant 33).

The main pitfall noted was not being able to see one's partner's face with two participants making this complaint. Participant 31 explained that not seeing one's partner could also be considered as a benefit: "but then it is good that they aren't staring at you while you try to find the meaning of something" (Participant 31). A problem with the connection was mentioned once. When asked how they would improve the technique, two participants had no suggestions and Participant 31 suggested that partners be provided pictures of each other. Earlier on in the interview, Participant 33 suggested that utilising both the textbook and the virtual world as part of a learning plan would be beneficial.

4.6.3 Triangulation of Results and Summary

The participants all positively commented on the benefits of learning when required to actively achieve a task in partnership. Statistical analysis of the participants' pre-tests and post-tests using a paired *t*-test resulted in a *p* value of 0.0153 which was statistically significant indicating that positive change occurred following participation in the Second Life facilitation technique. The participants

viewed the benefits of the Second Life facilitation technique as being: cultural exchange; connection with the native speakers; playing, doing or acting while learning; the virtual space; the music played in the virtual space; the tasks; the opportunity to meet random avatars; and one consistent partner receiving one comment. The strategies used by the participants were: ask for meaning; IM; online dictionary; repeat word; speak slowly; and used the virtual environment. The pitfalls were identified as being: not seeing one's partner and Internet speed.

4.7 Treatment Period 3: English Group 7 Skype

4.7.1 Pre-test and Post-test Results

The results of the pre-test indicated that the content was at an appropriate level for four of the six participants. Participant 25 and Participant 26 each received a score of 20 out of 20 on their pre-test. As a result, their scores were removed from the data set. These participants continued to partake in the facilitation technique and contributed their reflections during their in-depth interviews. Their interview data was included. The pre-test and post-test treatment scores were analysed using a paired *t*-test. The two-tailed *p* value (0.0182) was statistically significant which indicated that positive change occurred following participation in the Skype facilitation technique.

Table 4.12
Group 7: Participants' Results

Participant	Pre-test score /20	Post-test score /20	Gain score
27	16	17	1
28	12	14	2
29	13	16	3
30	14	17	3

Table 4.13
Group 7: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	13.75	16.00	
<i>SD</i>	1.71	1.41	
<i>SEM</i>	0.85	0.71	
<i>p</i> value			0.0182
No. participants	4	4	

4.7.2 Interview Results

The participants acknowledged various motivations for learning English. One strong motivator for Participant 28 and Participant 30 was that English is used for international communication in EU countries and other English speaking countries. Participant 30 also noted that English is useful for travel to other locations such as America. The desire to speak English due to personal interest and a love of language was a strong motivator for two participants. Participant 27 wanted to improve her skills. Participant 25 explained that she was required to study another language as a compulsory component of her course, so she selected English. Four participants, out of a total of six, studied English at high school with two participants beginning in primary school. When asked what was their strongest skill in English three participants provided a multi skill response, these being: reading and listening for Participant 27 and Participant 30; and speaking, listening and reading for Participant 29. Three participants focused on a single skill, these being: listening (Participant 25); reading (Participant 28); and writing (Participant 26). When asked what type of preparation the participants added to their usual study habits as a result of partaking in the Skype facilitation technique tasks, two participants stated they did not prepare at all, three commented that they read the task before meeting their partner and one stated that she did extra work but that the amount of extra work did not equate the amount she would do if the task was part of an assessment task at University of Mostar: “When I was using idioms with (...) [partner’s name removed] I just filled in the blanks. If it was in Mostar, I would give more attention to it” (Participant 26).

Group 7 was asked to comment on whether the facilitation technique provided them with any new experiences as learners. Four participants made comments relating to the use of Skype, for example: “Maybe on Skype I have less

pressure” (Participant 27). Having the opportunity to meet Australians and native English speakers received three comments. One participant compared his experience with the experience of his partner:

I think it was useful for me to practice [*sic*] English language, because we talked a lot after the assignment, but I'm not so sure if it was useful to [*sic*] my partner because his level of Croatian wasn't high enough for us to speak about everyday things (Participant 28).

When asked how they felt speaking to native speakers of English the sub-themes that presented were: positive seeing your partner as stated by four participants; “good” speaking with a native speaker as expressed by one participant; and “more personal” for one participant. One participant commented on her experiences stating:

When [*sic*] native speaker talks it sounds easy and simple. Sentences are short, but when I speak it's not so easy. I'm thinking too much. I think that when you see somebody it's easier to express what you want to say. There is no time to think and compose sentences like when you are writing, so I think is [*sic*] beneficial (Participant 27).

As Skype is a video-conferencing tool, it allowed partners to see each other. This benefit was identified by four participants. The benefit of using IM was noted by Participant 26 and Participant 28. Being able to connect with others at a distance and speak for longer if desired, the tasks that were used and learning about culture as well as the language each received one comment, for example: “To have the opportunity to speak to another person somewhere on the other side of the world. Before technology we could not do this. I can learn about culture and use language without leaving my city” (Participant 29). All six participants found the opportunity for cultural exchange to be positive. The sub-themes for strategy use included: asking for meaning which received two comments; gaining online support was also commented on twice; repeating the word gained three comments; speaking slowly was given two comments; and using IM gained one comment.

As with all previous groups, all comments regarding speaking with someone from a different culture were of a positive nature. All six participants made general positive comments regarding cultural exchange such as: “It was positive and a good experience” (Participant 30). One participant discussed different eating times and habits between the cultures: “There are some cultural differences like when we eat and what we eat. Here our large meal is lunch and we eat it at 3 o'clock. After that we don't eat much” (Participant 28). Other cultural sub-themes discussed included:

wedding customs (Participants 25) and religious festivals (Participant 30).

Participant 27 and Participant 29 reported that they found no negative issues with the technique or technology used. The other four participants' comments were segregated into two sub-themes: technical issues and time. The main technical issues related to Internet speed and connection receiving four comments. One participant noted that it wasn't Skype itself that was the issue but her Internet connection "Skype was good. Sometimes my connection was not good" (Participant 30). This participant also felt that one of the biggest issues for her was organisational, stating: "Sometimes it is hard to find time to meet when both people are busy in their life" (Participant 30). When asked how to improve the technique, Participant 30 focused on the timetabling of meetings by asking that lecturers assist with the planning of meetings. Participant 27 suggested being given more homework would be beneficial. One participant provided a detailed response:

Assuming that both partners have at least some knowledge of a language, I would just put some random topics for them to discuss like football, books, night life and again assuming that a person is interested in the language, they will ask things they don't understand when the other person is speaking (Participant 28).

4.7.3 Triangulation of Results and Summary

All participants found the tasks beneficial and effective when discussing their own experience. One participant felt the technique was not as beneficial for their partner as their partner was not as proficient in their target language. The pre-test and post-test treatment scores were analysed using a paired *t*-test. The two-tailed *p* value (0.0182) being statistically significant demonstrated that positive change occurred following participation in the Skype facilitation technique. The participants perceived the benefits of the Skype facilitation technique to be: cultural learning; IM facility; opportunity to interact with a native; video streaming enabling one to see his/her partner's face; the tasks themselves; connection with others at a distance; extended time for learning if desired; and gaining synchronous learning assistance. The strategies use included: asking for meaning; online support; repeating the word; speaking slowly; and using IM. The identified pitfalls were: the technical issues and finding the time to meet during one's personal schedule.

4.8 Treatment Period 3: Croatian Group 8 Skype

4.8.1 Pre-test and Post-test Results

The results of the pre-test indicated that the content was at an appropriate level for all Group 8 participants. The paired *t*-test analysis on the pre-test and post-test treatment scores provided a two-tailed *p* value of 0.0005. This value being statistically significant indicates that positive change occurred following participation in the Skype facilitation technique.

Table 4.14

Group 8: Participants' Results

Participant	Pre-test score /20	Post-test score /20	Gain score
34	15	18	3
35	12	14	2
36	7	12	5
37	8	11	3
38	11	15	4
39	10	13	3

Table 4.15

Group 8: Group Results

	Pre-test	Post-test	Pre-test/post-test comparison
<i>M</i>	10.50	13.83	
<i>SD</i>	2.88	2.48	
<i>SEM</i>	1.18	1.01	
<i>p</i> value			0.0005
No. Participants	6	6	

4.8.2 Interview Results

In Group 8, two participants had Croatian heritage. Two participants were married to Croatians. Aside from having Croatian background, Participant 34 was also married to a Serbian and Participant 35 who was engaged to a Serbian noted: “I joined the Croatian program because my fiancé is Serbian and there isn't anywhere in Brisbane for me to go to learn Serbian. It's hard to find books and CDs that can help except music” (Participant 35). Travel to Croatia was Participant 39’s motivation to learn. Three participants claimed to have a very small knowledge of the language

that was restricted to topics such as greetings in Croatian. The other three participants claimed to have no prior knowledge of Croatian. When asked which skill the participants thought they were most proficient at, Participant 34 and Participant 37 answered reading, Participant 36 said speaking, Participant 38 stated listening and Participant 35 and Participant 39 provided the multiple-skills response of reading and listening. Four participants put extra time and effort into preparing for the task work. One participant simply read the task and one decided to “just wing it” (Participant 37).

The participants pointed out many benefits of the technique while explaining their new experiences with the following sub-themes being discussed: one on one learning by two participants; cultural explanations also by two participants; accent practice gained one comment; opportunity to speak with a native speaker also gained one comment; and the opportunity to extend one’s learning received the following comment: “it allowed for discussions to go beyond just the classroom text so in part the learning was based on interest” (Participant 38). When asked how they felt learning using Skype, Participant 37 noted that she had difficulty with the video and would have liked to have seen her partner more. One participant pointed out that he worked hard “because the other student relied on the time that we both had together for us to work, so if I didn't do my homework, then there was nothing for us to talk about” (Participant 36). It was noted by Participant 35 that Skype was convenient to use. Negative feelings relating to the beginning of the treatment period were expressed by Participant 34 explaining the experience as initially “intimidating” and Participant 39 commenting: “At first I found it embarrassing because I didn't have the correct accent and sometimes I didn't understand the grammar, but with instant communication is instant correction and learning”. Participant 36 identified the benefit of Skype as being a free application available for use at any time of day. He explained that he could meet his partner at times that suited both partners’ time zones and lives.

The sub-themes that presented for the benefits of using the Skype facilitation technique were: communicating with natives which received four comments; having a personal tutor which gained one comment: “having your own personal tutor for that time each week” (Participant 35); seeing your partner on Skype, gaining instant synchronous assistance, learning correct accent and extending listening and speaking skills each also receiving one comment. One participant compared the tasks with

work in the classroom “with Skype you're being pushed to talk more and you're being pushed to listen” (Participant 36). The strategies the group utilised were: ask for meaning, by four participants; IM, by three participants, online support, by two participants, for example: “Another good thing with Skype she would send me a link to Google images and she sent me interesting videos to stuff like the national dance” (Participant 37); repeat the word, by three participants; look at notes, by one participant; and revert back to English, also by one participant. All participants found benefit through cultural exchange.

The opportunity to learn about their partner's culture featured as a benefit for four participants. Two comments related to being able to speak with native speakers. Participant 34 analysed her Australian-Croatian cultural upbringing and found aspects in her partner's culture that were similar to her upbringing and some which were different. Participant 35 found the discussion about the food differences between the cultures to be an interesting topic. School systems in the two cultures were also featured as a sub-theme for Participant 35. Three participants noted that the differences between the cultures did not cause any problem.

The main pitfalls of using the Skype facilitation technique for Group 8 were: the connection, which received two comments and the time zone difference, which also gained two comments, fear and embarrassment, which was commented on once, this being: “It can be confronting and you need to prepare more than you have to in a classroom environment: fear of being the fool” (Participant 38). Two participants felt that there were not any pitfalls in the Skype facilitation technique. When asked if the participants had any suggestions for improving the technique, three participants did not offer any suggestions. The remaining three focused on: the provision of developmental levels of work so progress could be achieved at a quicker rate if desired (Participant 36); the use of other technical tools to assist “... maybe have something maybe where you have a website maybe a whiteboard type thing. A shared whiteboard and talk too” (Participant 37); partners using the planned questions for beginners (Participant 34); and creating a weekly schedule to meet at the same time each week as sometimes partners were busy, was suggested by Participant 34.

4.8.3 Triangulation of Results and Summary

The qualitative data demonstrated positive comments regarding the

effectiveness of using the Skype technique for developing listening comprehension as well as other language skills such as speaking. The analysis of the pre-test and post-test treatment scores resulted in a two-tailed p value of 0.0005 which is statistically significant indicating that positive change occurred following participation in the Skype facilitation technique. Group 8 identified the benefits of the Skype facilitation technique as being: communicating with natives; having a personal tutor; seeing your partner through using Skype; accessing instant synchronous assistance; participating in cultural exchange; learning correct accent; and extending listening and speaking skills. The strategies Group 8 utilised were: asking for meaning; IM, online support; repeating the word; looking at notes; and reverting back to English. The pitfalls discussed were: technical issues; feelings of embarrassment; and time zone differences.

4.9 Stage 2 Analysis

4.9.1 Overview

Stage 2 data analysis began with the data sets for each facilitation technique being grouped together. The data from all the Skype facilitation technique groups (Group 3, Group 4, Group 7 and Group 8) was compared and contrasted in an attempt to gain a consistent picture of the effect that participating in the Skype facilitation technique had on the participants' listening comprehension development as well as their perceptions of the facilitation technique. Data identifying the benefits and strategies used assists to describe the affordances of the technique. The data from all Second Life facilitation technique groups (Group 1, Group 2, Group 5 and Group 6) was compared and contrasted in a similar manner. This process prepared the data sets for the Stage 3 analysis that compared the use of the Skype facilitation technique with the use of the Second Life facilitation technique.

4.9.2 Skype Data Collated

The quantitative data analysis consisted of comparing pre-test and post-test scores using a paired t -test. The two-tailed p values from all Skype facilitation technique groups were as follows: Group 3 (0.0327), Group 4 (0.0019), Group 7 (0.0182) and Group 8 (0.0005). All p values demonstrated that statistically significant positive change had occurred following participation in the Skype facilitation technique indicating that each group had experienced improvement in

listening comprehension. The qualitative data from each group supported this trend demonstrating that the participants valued their experiences and viewed the process as effective for language learning and for learning about culture noting that technical issues can hinder the process. Each group identified benefits for the technique. Some of the strategies used, such as using IM, also featured as a benefit of Skype, that is, the IM facility itself. Strategies such as repeating a word or saying the word slowly have not been included as a benefit of Skype. All participants in all groups commented that the Skype facilitation tasks resulted in positive cross-cultural communication, which has been included as a benefit. Table 4.16 displays the variety of strategies used by the participants and the collated number of responses made relating to each strategy. Table 4.17 demonstrates the variety of perceived benefits identified by the participants for the Skype facilitation technique. Table 4.18 shows the main perceived pitfalls of the Skype facilitation technique. The strategies used, benefits and pitfalls provide important information relating to the effectiveness of the Skype facilitation technique. They also help to build a picture of the affordances of the technique and when the technique may be suitable for use and for which learners.

Table 4.16
Strategy Use during the Skype Facilitation Tasks

Strategy	Group 3	Group 4	Group 7	Group 8	Total no. Comments
Repeat	2	4	3	3	12
Online dictionary	1	3	2	2	8
IM	0	2	1	3	6
Ask for meaning	0	0	2	4	6
Speak slowly	0	1	2	0	3
Write it	0	2	0	0	2
Look at notes	0	0	0	1	1
Negotiation of meaning	1	0	0	0	1
Revert to English	0	0	0	1	1
Use hands and paper to demonstrate meaning	1	0	0	0	1

Table 4.17
Perceived Benefits of the Skype Facilitation Technique

Benefit	Group 3	Group 4	Group 7	Group 8	Total no. comments
Cultural exchange	6	6	6	6	24
Speaking to natives	5	2	0	4	12
Seeing one's partner	3	4	4	1	12
Tasks	3	4	1	0	8
Seeing one's partner's online status at other times	1	0	1	0	2
Feelings of closeness	2	0	0	0	2
One on one Communication	1	0	1	0	2
IM	0	0	2	0	2
Synchronous help	0	0	1	1	2
Connect with people from afar	0	0	1	0	1
Accent	0	0	0	1	1

Table 4.18
Pitfalls of the Skype Facilitation Technique

	Group 3	Group 4	Group 7	Group 8	Total no. comments
Technical: connection/ Internet speed	4	2	4	2	12
Feelings of embarrassment	1	0	0	1	2
Time zone difference	0	0	0	2	2
Need to look good	0	1	0	0	1
Structure rigid	0	1	0	0	1
Finding time to meet	0	0	1	0	1
Activities	0	1	0	0	1
Nervousness in the beginning	0	1	0	0	1

4.9.3 Second Life Data Collated

A statistical analysis in the form of a paired *t*-test was used for each group's pre-test and post-test results. The two-tailed *p* values from the groups that participated in the Second Life facilitation technique were as follows: Group 1 (0.002), Group 2 (0.0001) and Group 6 (0.0153). All *p* values demonstrated that

statistically significant positive change had occurred following participation in the Second Life facilitation technique indicating that each group experienced improvement in listening comprehension. As with the Skype groups, the Second Life qualitative data supported this trend. Strategy use for each group has been outlined in Table 4.19. The perceived benefits of the Second Life facilitation technique have been provided in Table 4.20. Table 4.21 shows the main perceived pitfalls of the technique. This information was from the results collected for Question 11.

Table 4.19
Strategy Use during the Second Life Facilitation Tasks

Strategy	Group 1	Group 2	Group 5	Group 6	Total no. comments
IM	7	6	1	2	16
Repeat	3	6	2	3	14
Used online support: dictionary or translator	0	6	1	1	8
Speak slowly	3	2	0	1	6
Ask for meaning	1	0	0	2	3
Used virtual environment	0	0	1	1	2
Guessed	1	0	0	0	1
Reviewed notes for meaning	0	1	0	0	1

Table 4.20
Perceived Benefits of the Second Life Technique

Benefit	Group 1	Group 2	Group 5	Group 6	Total no. comments
Positive cultural exchange	8	8	3	3	22
Virtual space	6	8	3	0	17
Native	6	2	2	1	12
Tasks	1	4	2	2	9
Language displayed in virtual/ music	1	4	0	1	6
Learn by doing/ role play	0	4	1	0	5
Learning feels more real /authentic	1	3	1	0	5
Fun	0	3	1	0	4

Tool available during personal time: allowing to meet other random users	0	2	1	0	3
Like a game	1	0	1	0	2
Learn new content	0	0	2	0	2
Responsibility for learning/pressure to perform	0	1	0	0	1
1 partner/private tutor	0	0	0	1	1
New and different	1	0	0	0	1

Table 4.21
Pitfalls of the Second Life Facilitation Technique

Pitfalls	Group 1	Group 2	Group 5	Group 6	Total no. comments
Technical: connection/Internet speed	7	3	3	1	14
Not seeing partner	5	1	0	2	8
Method led to feelings of distrust	1	0	0	0	1
Working in a computer lab	1	0	0	0	1

4.10 Stage 3 Analysis

The final stage of analysis compared the amount of change of: (a) all Skype facilitation technique participants with all Second Life facilitation technique participants; (b) the CSL learners who participated in the Skype facilitation technique with CSL learners who participated in the Second Life facilitation technique; (c) ESL learners who participated in the Skype facilitation technique with ESL learners who participated in the Second Life facilitation technique; d) ESL learners who participated in the Skype facilitation technique with CSL learners who participated in the Skype facilitation technique; e) ESL learners who participated in the Second Life facilitation technique with CSL learners who participated in the Second Life facilitation technique; (f) and finally it was decided to compare the results in the different facilitation techniques where ESL groups used the same translated version of the pre-test and post-test as the CSL groups. The aim was to investigate the difference between using Second Life and Skype as tools. All statistical analyses that were carried out in this stage will be presented together and then all the qualitative analysis will be presented. Results will be triangulated to present an overall collated

view of the use of Second Life compared and contrasted with the use of Skype for the development of listening comprehension in relation to the research questions: (1) What are SL learners' perceptions of using Second Life and Skype for developing listening skills in their target language? (2) What effects does the use of Second Life and Skype as part of a facilitation technique have on the development of SL learners' listening comprehension?; and (3) What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL?

4.10.2 Quantitative Analysis

The initial analysis in Stage 3 compared the amount of change (improvement in performance) that occurred in the results of the 21 Skype facilitation technique participants who participated in both the pre-test and post-test with the amount of change that occurred in the results of the 20 Second Life facilitation technique participants who partook in both the pre-test and post-test. An unpaired *t*-test was used that provided a *p* value of 0.4618 that was not statistically significant. Both groups of participants appeared to have developed their listening comprehension equally as well. There was no preference in the statistics for one facilitation technique over the other. The second analysis compared the amount of change for the 12 CSL participants who partook in the Skype facilitation technique with the amount of change for the 11 CSL participants who completed the Second Life facilitation technique. The *p* value (0.2786) from this comparison indicated that there was no statistical significance. The CSL participants did equally as well developing their listening comprehension skills using either the Second Life or the Skype facilitation technique. The results from the nine ESL participants who completed in the Skype facilitation technique were then compared with the results from the nine ESL participants who partook in the Second Life treatment period. Once again the *p* value (0.8141) indicated that there was no statistically significant difference between the groups performance. The ESL participants developed their listening comprehensions skills equally as well participating in the Second Life facilitation technique or the Skype facilitation technique.

As the statistical analysis indicated no overall difference between the use of the Second Life facilitation technique and the use of the Skype facilitation technique, consideration was given to whether the Skype facilitation technique had greater influence on the participants' improvement in their listening comprehension ability

for the ESL participants or for the CSL participants or if the improvement was at a similar rate. All nine ESL participants' data from Group 3 and Group 7 who completed the Skype facilitation technique were grouped together. All CSL 12 participants' data from Group 4 and Group 8 who completed the Skype facilitation technique were grouped together. The gain scores were considered to ascertain the amount by which the participants improved. An unpaired t-test was used to analyse the data that provided a statistically significant p value of 0.0064. The p value indicated that listening comprehension development as a result of participating in the Skype facilitation technique resulted in greater gain for the CSL participants than the ESL participants.

Table 4.22

Comparison of Croatian Language Learners' Results with English Language Learners' Results for the Skype Facilitation Technique

<i>M</i> gain scores: Croatian learners	<i>M</i> gain scores: English learners	<i>p</i> value
3.08	1.67	0.0064

Following this was an analysis of whether participation in the Second Life facilitation technique resulted in greater gains in listening comprehension ability for the CSL participants or for the ESL participants or if there was no significant difference between the groups. The nine ESL participants from Group 1 and Group 5 who completed the Second Life facilitation technique were grouped together. The eleven CSL participants from Group 2 and Group 6 who completed the Second Life facilitation technique were grouped together. The gain scores were considered to ascertain by how much the participants improved comparing the two collated groups. The p value (0.0447) was statistically significant which provided similar results for the Second Life facilitation technique as with the Skype facilitation technique demonstrating that the CSL participants were making greater improvement than the ESL participants.

Table 4.23

Comparison of Croatian Language Learners' Results with All English Language Learners' Results for the Second Life Facilitation Technique

M gain scores: Croatian learners	M gain scores: English learners	<i>p</i> value
2.64	1.78	0.0447

Following the significant trend appearing of the CSL participants gaining more from participating in the facilitation techniques than the ESL participants, it was decided to compare the results in different treatment periods where individual English groups used the same translated version of the pre-test and post-test as the CSL participants. The comparison investigated whether the difference was influenced by the language being learnt or if the participants who were of a lower beginning ability level appeared to gain more from the facilitation techniques than the participants who were of a higher beginning ability level. Group 3 (ESL), and Group 4 (CSL) participated in the Skype facilitation technique and used the same content for the pre-test, tasks and post-test. Group 7 (ESL) and Group 8 (CSL) also participated in the Skype facilitation technique using the same tests and content. The participants from Group 1 (ESL) and Group 2 (CSL) who completed the Second Life facilitation technique used different content sets. Although Group 5 (ESL) and Group 6 (CSL) used the same content set, the data for too many participants was removed so that it was not possible to compare these groups using the same process.

Table 4.24

Skype Facilitation Technique Group 3 and Group 4 Compared

	Group 3: English	Group 4: Croatian	<i>p</i> value
Pre-test <i>M</i>	17.60	5.83	0.0001
Post-test <i>M</i>	18.80	8.67	0.0001
<i>M</i> gain scores	1.20	2.83	0.0284

The results of the comparison indicated that the CSL learners achieved less on the pre-test and also received significantly lower scores on the post-test but the amount of change between the pre-test scores and the post-test scores showed that the CSL learners made a statistically significant greater gain than the learners of English. These results demonstrate that the CSL lower ability group made significantly greater gains than the ESL higher ability group. The same comparison was then made between Group 7 and Group 8.

Table 4.25
Skype Facilitation Technique Group 7 and Group 8 Compared

	Group 7: English	Group 8: Croatian	<i>p</i> -value
Pre-test <i>M</i>	13.75	10.50	0.0794
Post-test <i>M</i>	16.00	13.83	0.1564
<i>M</i> gain scores	2.25	3.33	0.1335

The scores in this comparison whilst not significant are in the same direction in that the ESL participants overall achieved a better result on their pre-test and post-test scores. The CSL participants made a better improvement compared to English. These results are in the same direction supporting the statistical significance demonstrated in the Group 3 and Group 4 comparison. In summary the results indicated that: (1) there was a statistically significant gain in the participants' listening comprehension as a result of participating in either facilitation technique; (2) there was no statistically significant difference when comparing the use of the Second Life facilitation technique with the use of the Skype facilitation technique; and (3) the lower ability level groups, which consisted of the CSL participants, demonstrated greater gain in listening comprehension development than the higher ability level groups, which consisted of the ESL participants.

4.10.3 Qualitative Data: Comparison between Second Life and Skype

The results of the added interview question (Question 13) that was utilised to ask the participants from Group 3 and Group 4 to compare the use of both techniques for developing listening comprehension and for general language learning are outlined. Following this, a summary of the data from each facilitation technique organised in the Stage 2 analysis will be compared and contrasted. This comparison will be used to assist the discussion in Chapter 5 regarding the potential use and suitability of use of Second Life and Skype for facilitating the development of listening comprehension.

The five participants from Group 3 who took part in the Second Life facilitation technique during Treatment Period 1 and the Skype facilitation technique during Treatment Period 2 were asked to offer their comparisons between the two facilitation techniques. These answers were not included in the collated tables so that the participants were not counted twice. The data from Question 13 is presented here

and discussed further in Chapter 5. All five participants provided positive commentary regarding both techniques, for example, “Both were great experiences” (Participant 1) and “Both are good but they are different” (Participant 7). Participant 1 compared the techniques as follows: “Second Life is good for activity [*sic*] that you have to do and talk. Skype is good for talking about things and knowing the person” (Participant 1). Participant 4 made similar observations regarding the appropriateness of different tasks using either Second Life or Skype and the different purposes of the tasks suiting different online tools: “Second life I think is good for entertainment and for talking about other things around you. On Skype we used the questions, but if you can't think of a theme to talk about then you are looking only at your partner” (Participant 4). Participant 4 has also identified another pitfall of the Skype facilitation technique, the negative aspect being that it heavily relied on the task's script and once the script was completed the onus was left on the participants' skills at creating content to discuss. Participant 5 also discussed the suitability of the tools for different tasks and offered that Skype was a good online tool for peer tutoring sessions. Second Life was considered to be more social and provided the user with the ability to do things. Skype was considered the better online tool for facilitating the development of friendships as stated by Participant 6: “I liked Skype, seeing my partner and talking with them together. In Second Life, it was like this but we were concentrating on activities and not making friendship. (...) Skype was good for connecting friendship”. Participant 4 and Participant 21 both felt that Skype as an online tool was easier to use. Nevertheless, Participant 21 enjoyed the features that Second Life offered: “They were different. Technology is easier on Skype but then Second Life has fun commands. Both are good for learning and talking, but in Second Life you pretend to be somewhere. This is fun” (Participant 21).

All six participants from Group 4 participated in both the Second Life and the Skype facilitation techniques and were asked to compare their experiences. Five participants found that both Second Life and Skype were useful tools for learning but felt that they may be better used serving different purposes. Participant 11 believed Skype to be the preferred tool explaining that having just the partner and the questions removed other interferences from the interaction. Skype was considered by Participant 14 as being better for structured learning and grammar whereas Second Life was considered better for doing/role playing as part of learning and related tasks such as learning to go shopping. Second Life was viewed as “more fun” (Participant

16) while Skype was seen as “more personal and friendly” (Participant 16). One participant suggested a way of using both for language learning: “I liked both. It would be good if we could maybe have maybe once a week Second Life and once a week Skype or maybe practise the words in Skype and then do the activity in Second Life” (Participant 13).

The Stage 2 comparison identified the most significant perceived benefits of each technique and the most commonly used strategies for each group. The pitfalls were also collated. The most commonly used strategies were similar between the groups. It is important to note that these strategies related to when a participant lost meaning in the conversation. The benefits also provide valuable information on how the learning spaces may be used as part of a strategy for learning by identifying which learning space may be best suited to which learning task. The comparison of the perceived benefits outlined in Table 4.27 demonstrates the similarities and differences between the use of Second Life and Skype for developing listening comprehension. Both techniques, shared the issue of slow Internet speed interrupting connection although Skype gained the added pitfall of two participants feeling embarrassed in the beginning of the treatment period. Second Life had the extra pitfall of not being able to see one’s partner, which was not an issue when using Skype.

Table 4.26
Comparison between Second Life and Skype: Strategies Used

Strategies used	Second Life	Skype
Repeat	14	12
Online dictionary	8	8
IM	16	6
Ask for meaning	3	6
Speak slowly	6	3
Write it down	0	2
Look at notes	0	1
Negotiation of meaning	0	1
Revert to English	0	1
Use hands and paper to demonstrate meaning	0	1
Used virtual environment to clarify	2	0

meaning		
Guessed	1	0
Reviewed notes for meaning	1	0

Table 4.27
Comparison between Second Life and Skype: Benefits

Benefits	Second Life	Skype
Cultural Exchange	22	24
Speaking to natives	12	12
Seeing one's partner	0	12
Tasks	9	8
Seeing one's partner's online status at other times	0	2
Feelings of closeness	0	2
One on one Communication	0	2
Connect with people from afar	0	1
IM	0	2
Synchronous help	0	2
Accent	0	1
Virtual space	17	0
Language displayed in virtual/music	6	0
Learn by doing/role play	5	0
Learning feels more real/authentic	5	0
Fun	4	0
Tool available during personal time also allowing to meet other random users to practise with	3	0
Like a game	2	0
Learn new content	2	0
Responsibility for learning/pressure to perform	1	0
1 partner/private tutor	1	0
New and different	1	0
Like a game	2	0

Table 4.28
Comparison between Second Life and Skype: Pitfalls

Pitfalls	Second Life	Skype
Technical: connection/ Internet speed	14	12
Feelings of embarrassment	0	2
Need to look good	0	1
Structure rigid	0	1
Time zone difference	0	2
Finding time to meet	0	1
Tasks	0	1
Nervousness in the beginning	0	1
Not seeing one's partner	8	0
Method led to feelings of distrust	1	0
Working in a computer lab	1	0
No time to meet more people (structure of tasks)	1	0

4.11 Summary

The results have indicated that all participants perceived the facilitation technique that they participated in, regardless of whether it was the Second Life facilitation technique or the Skype facilitation technique, to be effective for developing listening skills in their target language. The quantitative data supported the participants' perceptions of the effectiveness of each facilitation technique with a statistically significant gain being made by the participants when using either facilitation technique. One facilitation technique did not outperform the other. The CSL participant groups showed more change in their listening comprehension development than the ESL participant groups with the reasoning behind this trend requiring further and more rigorous investigation to determine if the relationship does exist. The data demonstrated that both techniques may be more effective for beginner learners than more advanced learners. Second Life and Skype shared some affordances as well as having distinctly different features and advantages. The results indicated that each online tool may be suitable for facilitating the development of listening comprehension.

Chapter 5

Discussion

The research questions were framed around the pedagogical aims of the study listed in Section 1.3. Motivated by the aims, the research questions focused on whether Second Life and Skype were effective at facilitating listening comprehension development and the circumstances that influenced their effectiveness and the participants' experiences. The aims do not suggest that one facilitation technique should be chosen in isolation over another. The purpose of the study was to describe, compare and contrast both facilitation techniques and learning spaces in-depth so that teachers and learners are armed with a greater understanding of the potential of these online tools for facilitating learning.

This chapter will explore each research question by analysing the quantitative and qualitative data and relating this data to the theoretical framework and the concept of a continuum of language learning spaces. The discussion will compare the use of both tools in relation to the research questions. It will begin by discussing the participants' perceptions of using Second Life and Skype. The participants' perceptions will be linked to the literature and discussed in relation to the first research question. To examine the second question "What effects does the use of Second Life and Skype as part of a facilitation technique have on the development of SL learners' listening comprehension?", the results of the quantitative analysis will be considered. The final question "What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL?" will be explored through the qualitative data considering the strategies used by the participants, the benefits and pitfalls of using these online techniques. The affordances, that is, what they offered, revealed and concealed for the participants, will be examined. The data will be utilised to expand the conceptual framework of the continuum of language learning spaces. Also, the implications for assisting teachers and learners in planning for the development of listening comprehension are outlined. These implications will be discussed in relation to how language educators can better assist the development of listening comprehension in a SL for learners who do not reside in the country where the target language is natively spoken.

5.1 Effectiveness of Utilising Second Life and Skype for Listening

Comprehension Development

During the Stage 2 analysis of the results, it was identified that the participants perceived the Second Life and the Skype facilitation techniques to be effective. This section discusses why the participants noted that the techniques were effective and whether they placed any restrictions on the techniques' effectiveness. It examines what the participants viewed as influencing the effectiveness of the techniques. The perceived effectiveness helps build a fuller picture of the affordances and suitability of these online tools and facilitation techniques for assisting the development of listening comprehension in SL learners. The effectiveness discussion will include: whether schema and script theory assisted in describing the participants' learning using Second Life and Skype, that is, did role-playing or solving a task in a virtual environment which resembled a real life environment influence the participants' learning?; whether Alderson's (1994) concept of a linguistic threshold existed for the type of tasks used in the facilitation techniques, that is, was there a level which the participants had to have achieved prior to task work to assist in the effectiveness of the technique; if there was evidence of cognitive overload in these tasks or were they at the correct level for the SL learners involved; and whether the facilitation techniques and their use of authentic texts assisted the participants' motivation? There is some overlap between perceived effectiveness and perceived affordances, for example, being able to connect with others is an affordance as well as contributing to the effectiveness of the technique.

5.1.1 Schema and Script Theory

Considering schema and script theory, tasks were organised around themes for both facilitation techniques. Schemas are considered to hold the information a person knows about what is considered normal behaviour for different circumstances (Nishida, 1999). In Second Life, where possible, the participants visited locations that were virtual representations of places where the conversations they were having would take place, for example, when the participants were shopping they visited a shopping mall. Tasks were designed this way based on an underlying assumption that the environment and the learning task may assist the participants in organising and retrieving a schema if organised in a manner which represented the features associated with the particular schema being studied, for example, to learn how to

order in a restaurant, a role-play would occur in a virtual restaurant using the typical vocabulary and type of discussion that would occur in a real restaurant.

The results indicated that the participants enjoyed being within the relevant virtual environment when completing tasks. They found the experience positive and rewarding. Ten participants made comments relating to the shopping task such as: “It was fun going shopping. I cannot go shopping with native [*sic*] English speaker in my classroom” (Participant 3). They found being in the virtual environment role-playing situations assisted them in learning and made learning fun as opposed to sitting in the classroom reading dialogues: “In class we are responding to questions from the textbook but this was about us. It was really fun. It put pressure on me to be able to speak for myself so I needed to learn the vocabulary” (Participant 13). Second Life appeared to have provided a context for learning: “In Second Life we lived the dialogues. In some ways it was staged but the questions were still relevant. The shopping activity was more natural. The news one was difficult. It was too advanced for my current ability. The directions activity was staged but good practice for a real situation” (Participant 16). The context and the resources assisted the participants in making connections with the content: “You could see signs in English” (Participant 3). Although this example is not specifically related to listening comprehension, it does demonstrate the influence that the learning space had on building vocabulary. From the results, it appears that utilising scripts related to schema as the basis for creating tasks when working in a virtual world was beneficial for the participants. When the participants were able to use a content schema based on a circumstance in a virtual or real manner that involved them personally, they were able to make meaningful connections with the content:

It was good to see things in Australia and Zagreb. My partner did not go to Zagreb before and was excited for this. We talked about some shops we could see in virtual Zagreb like Školskajniga. It was fun. I read about things in Australia on the signs that were there. I liked the Opera House and in virtual Zagreb was a cinema [*sic*]. (Participant 8)

They also reported that the tasks were fun and interesting. As the tasks took place with a native speaker of the target language, the content schema and related scripts were relevant and authentic. The participants made reference to the benefit of having a native speaker as a partner when participating in both the Second Life and the Skype facilitation techniques.

The Skype tasks utilised the same task content vocabulary as the Second Life tasks but did so using different resources. Authentic resources were used as much as possible, such as, an excerpt of the map of Zagreb and real menus from various restaurants. When the participants were asked what they felt were the benefits of each online tool, the sub-themes that presented relating to the learning space structure for Skype mainly focused on being able to see and speak with a native speaker with eight out of twelve comments relating to the tasks. The Second Life learning space appeared to make more of an impact on the participants' experiences connecting the schema of the situation they were learning about and related vocabulary with the learning space and what they were actively doing, with the following sub-themes discussed: the virtual space which received 17 comments; learning by doing/role-play which gained 5 comments; language displayed in the Second Life learning space and music played in the background at some locations were discussed by 6 participants; the virtual world being like a game was noted 2 times; the tasks as part of the facilitation technique featured in 9 comments; and the tasks placing the participants in real life situations was commented on 5 times. An example of one of the comments made regarding the learning space created by Second Life being: "Second Life world was very interesting and we could see what we were learning or be there. That was good" (Participant 6). The Skype facilitation technique seemed to offer the participants the benefit of native person-to-person conversation while the Second Life facilitation technique seemed to provide more interaction with the learning space related to the schema or script being learnt and experienced while also the participants in a conversation with a native speaker.

5.1.2 Alderson's (1994) Linguistic Threshold Hypothesis (LTH) and Effectiveness

The next focus of effectiveness of the techniques considered whether the concept of Alderson's (1994) linguistic threshold hypothesis (LTH) as determined by the participants' pre-tests was demonstrated in the results. The LTH states that language learners need to gain a certain level of ability and knowledge in their SL to be able to comprehend spoken and written texts. If learners' knowledge of the SL is not sufficient, their understanding will cease (Vandergrift, 2006). The LTH was adapted in the study and was considered to be the level of ability and knowledge that the participants need in their SL to be able to effectively partake in the learning tasks.

Pre-testing took place to ascertain the participants' ability levels prior to entering each facilitation technique. This was done to ensure that the content was at an appropriate level for each participant. Only two participants involved found the content and task requirements to be at a too difficult level. These participants were learning Croatian as their SL. The participants entered the Croatian course at various levels due to their different backgrounds and motivations for learning. Due to the sessions requiring communication between partners, when these participants were unable to continue communicating in their target language, they reverted back to speaking English to keep the communication going, for example: "We did speak a lot of English because I just don't know enough Croatian. When I know more Croatian I could get more benefit" (Participant 14) and "Well we practically spoke English most of the time. And she helped me with my assignment and when I go there we plan to meet as well" (Participant 14). These comments indicate that the participants without basic communication skills in their target language may find the tasks too difficult for speaking and listening in their target language. It also demonstrates that tasks can be modified with positive learning development as when the participants were unable to communicate in Croatian, they still found benefit in the tasks and spoke in English so as to continue the experience and the cultural learning. In summary, the pre-test was an effective tool for indicating the required ability level or threshold that the participants needed to be able to partake in the tasks. Further investigation into the exact lowest appropriate score on the pre-test could be considered and appropriate modification approaches could be created and trialled for low ability learners.

Only one participant from the ESL groups commented that he experienced difficulty. He stated: "Some of them are speaking too fast and sometimes is [*sic*] not easy to understand words they are using" (Participant 4). The difficulty that Participant 4 was experiencing may have been due to his inexperience with listening to an Australian accent as a Nvivo query demonstrated that 16 comments from the ESL participants made reference to listening to an Australian accent, for example: "The Australian accent can be hard to understand on [*sic*] some words" (Participant 5). It is presumed that the content was not too difficult for Participant 4 as he achieved a pre-test score of 5/10 and a post-test score of 8/10 indicating that listening comprehension development occurred.

5.1.3 Cognitive Load Theory and Effectiveness

Cognitive load theory considers the cognitive demand a learning task and the tools used to complete the task have on learners. Large cognitive loads are seen to have a negative influence on learners' progress. When the design of the instructional material itself causes cognitive demands on the user, working memory capacity is reduced which makes learning the material more difficult (Baddeley, 2000; Paas, Tuovinen, Tabbers, & Van Gerven, 2003). Grgurović and Hegelheimer (2007) viewed using two modes of learning as having a positive influence on learning. All participants, except two, agreed with Grgurović and Hegelheimer's (2007) assertion that having two modes of learning (audio and visual) was beneficial. Movement in the virtual sense was considered to be positive. Only two participants made reference to the technology and multimedia features of Second Life influencing their cognitive load demands and influencing their ability to learn. The issue for these participants appeared to occur at the initial stages of the treatment period. One of the comments being:

In the beginning it was overwhelming really the technology and meeting the students from Split I spent half the lesson feeling confused. After that I went home and tried it by myself and learnt about the functions more. After that I was fine. Technology is usually not my strong area so I can get nervous. It was actually quite easy once you got the hang of the system. My partner and I got into a pattern and the rest was great and by the end I felt at ease with the technical aspects. (Participant 11)

Although the participants had received a lesson on using Second Life, for two participants this was not sufficient training for them to be comfortable at the beginning of the treatment period with the technology. They may have benefited from an extra lesson on using the technology before meeting their partners to ensure that they were competent with using the required features. Both participants commented that they became proficient at using the technology for the purpose of the tasks after a few attempts and that it was then no longer an issue. Interestingly, it was the low ability level CSL learners who had difficulty using Second Life while trying to communicate in their second language. The cognitive demands of being a beginner may require much cognitive load that adding the new technology exceeded what they were able to comfortably deal with. Further investigation is required to ascertain whether the other participants were not hindered during their learning by using a new online tool due to their ability to quickly learn how to use the technology so that this

aspect did not require as much attention and cognitive load during task work or whether it is due to their previous use of online tools and virtual worlds. Further investigation is also needed to indicate whether cognitive load is influenced when learning how to use a new online tool while also dealing with communicating in a second language depending on factors such as: the level of language competence; technological competence; learner IQ; learner ability to multi-task or whether the preferred learning style of the learner influences how they process the information and develop the skills needed to function in various online learning spaces.

The participants who used Skype did not comment on there being any issues with learning to use the technology, although Participant 21 noted that she wrote words down and held them up to the screen for her partner to read. This comment demonstrates that the participant may not have been aware of the other features available on Skype such as text chat. To ensure that the technology is used in the most effective manner to assist learning development and reduce the possibility of the technological requirements interfering with learners' cognitive load, training on the use of technology to learners in language classes may be useful regardless of whether they voice that they do not require such training and are proficient users. Skype as a tool presented less cognitive demand for the participants. The cognitive demands required to use Second Life were decreased with some practice with using the online tool.

5.1.4 Motivation and Effectiveness

The ESL participants and the CSL participants have chosen to study their target language for different reasons. All participants studying Croatian commented that their motivation was for personal reasons such as: having Croatian heritage; having married into a Croatian family; and interest and travel purposes. The ESL participants were doing so as part of a requirement of their degree, to improve their ability to work and communicate with people located in EU countries and because they viewed English as an important world language. Having strong motivation can positively influence preparation and performance whereas having little motivation can have the opposite influence (Krashen, 1995). Aside from stating their motivation for enrolling in their language course, the CSL participants demonstrated their motivation for learning and improvement of their skills by the effort they put into their preparation for the task work. Their extra effort demonstrated their interest in

the tasks and their perception of the tasks as being relevant to them. As Helgesen (2003) noted that if content in a course is not relevant or interesting, motivation may decrease. Content that is interesting and relevant may lead to increased motivation for learning as when learners are motivated, they may put more time and effort into learning resulting in increased learning outcomes. The participants all reported positively and found the tasks and the experience of participating in the facilitation techniques as interesting.

Noting that the ESL participants entered the course at a much higher ability level than the CSL participants, the content did not appear to be difficult for Group 3, Group 5 and Group 7. These groups also did not report that they did more work than usual to prepare for the task work. This may have been as a result of the level of difficulty of the content for the learners being easy. They did comment that they read the information prior to the task. The content may have been better suited at a slightly higher level so that learners received similar pre-test scores to the CSL participants. The CSL participants needed to put much more time into preparing for tasks to successfully complete the facilitation tasks, for example: “It put pressure on me to be able to speak for myself so I needed to learn the vocabulary” (Participant 13). Nevertheless, pre-test and post-test analysis demonstrated that participation in either the Second Life or the Skype facilitation techniques led to an increase in learning outcomes for the participants with the CSL participants making greater gains.

From these results it is logical to infer that the participants who had prior knowledge of the content did not prepare as much for task work as the participants who did not know the content prior to beginning the task work. The CSL participants in general felt they needed to spend time preparing for the tasks as the situation required the participants to be able to understand and speak a certain number of words and sentences for the task session conversations to progress. The CSL participants were at a lower beginning ability level that resulted in the pressure to perform well on tasks providing all but one CSL participant with the motivation to put extra effort into their learning. For example, a participant from Group 2 spent more time than usual preparing and stated that: “I was fearful that I wouldn't be able to make conversation at all. But it wasn't that bad as long as we stuck to the guiding questions” (Participant 11). Although the ESL participants did not feel they needed to put in extra effort learning to participate in the task work, they were effectively

motivated to assist their partners in learning Croatian. Four out of six participants commented that they had logged on and met with partners in their own time and between Treatment Period 1 and Treatment Period 2 to help their partner. They appreciated their partners' motivation for learning which in turn motivated them to provide extra help: "I met my partner before to improve his Croatian. He is a beginner and very bad in all areas. I wanted to help him because he is learning for his family and that is good, very good" (Participant 1). Regardless of which online tool was used, they felt for their partners' effort and willingly gave their own free time to assist the CSL participants. This finding is consistent with the findings from Vinther's (2011) study on tandem learning through email exchanges where students were interested in maintaining contact with their partners after the study had finished. Participant 5 specified that she met her partner using Second Life and Skype in between Treatment Period 1 and Treatment Period 2. This may have been due to the nature of the help required, that is, help with course work or due to what one participant described as the ease of seeing whether a partner was or was not online allowing her to access her partner more often. It may have been due to the ease or difficulty of using the online tools: "Skype is easier to learn to use ..." (Participant 7). Fourteen participants made comments relating to the issues they had with Internet speed and connection for the Second Life group. Twelve participants cited similar issues with Internet speed when using Skype.

5.1.5 Authentic Purpose, Resources and Audience

The tasks as part of both the Second Life facilitation technique and the Skype facilitation technique focused on solving a problem or sharing information about one's culture and oneself. They were organised around themes such as: greetings and introductions; following directions; objects hunt; describing objects; shopping trip in Second Life; at the café; and a media session. The results indicated that the structure of the tasks was successful in that the participants felt the tasks had a real purpose which had meaning to them or assisted them to learn how to participate in a real situation: "In class we are responding to questions from the textbook, but this was about us. It was really fun" (Participant 13). In total, 8 participants out of 24 had commented specifically that they viewed the Skype tasks in general as beneficial and 9 participants out of 24 had viewed the Second Life tasks in general as beneficial. The remainder of the participants focused on specific tasks within each technique as

beneficial. The Second Life results provided further information about the influence of the tasks with five participants considering the role-playing of real circumstances as helpful for their development and aim to be able to partake in such circumstances in real life. Five participants also commented that the Second Life tasks assisted in helping the learning experience feel real and authentic.

The authentic resource, native speakers, was featured highly in both the Second Life and the Skype results. When asked what the benefits of the facilitation techniques were, a total of 24 comments made reference to speaking with the native speakers of the target language. Speaking to a native speaker brought the benefit of cultural exchange with the native speakers being viewed as an authentic resource into understanding the target culture due to their knowledge of the culture. Participant 34 explained how having a native speaker as a partner who currently resides in the target culture provided her access to knowledge about the culture. Participant 36 was brought up in a predominately Australian environment with a mother who was Croatian. The cultural exchange demonstrated that his mother's differences in behaviour to what he considered the Australian norm were not particular to her but were behaviours that were typically part of her Croatian culture. Participant 36 was able to reflect about his own life and make authentic connections with the content being discussed:

For me it was like a look into my mum's upbringing. That was interesting. In some ways I kind of thought that mum did certain things because it was just her way but I notice that some aspects are part of her culture - in her mentality towards some things. I'm not sure how to explain that. It was interesting. (Participant 36)

Participant 18 found the benefit of having contact with a native speaker who was living in the target culture allowed her to explore present day Croatia and compare it with former Yugoslavia and recounts told by her father: "Learning about Croatia as a place and how it is now. Some things have changed since my dad left when it was under Yugoslavian rule" (Participant 18). Participant 17 also reflected on the benefit of having access to a modern version of Croatian culture: "Yeh, I liked learning about what it is really like over there. The oldies over here tell stories but you wonder if that is real anymore so you get to find out for real. There was nothing negative" (Participant 17). Participant 11 explained how having access to native speakers allows learners to experience different Croatian dialects as used in Croatia

and in Australia: “Using this I am learning what is spoken by the mainstream people over there. Some words from the family here are outdated and my wife's family use them differently” (Participant 11).

Having a native speaker proved useful to the CSL participants who did not have Croatian heritage. Participant 16 explained how marrying into a Croatian family had provided him with one perspective on Croatian culture and how speaking with a native speaker from the target culture who was unrelated had given him a wider understanding of the culture: “I enjoyed it. My only other contact with Croatians is my wife's family. It was fun communicating with other Croatians to gain a balanced view of the culture” (Participant 16). The personal connection to one’s cultural heritage or one’s new family’s cultural heritage through contact and discussion with a native speaker was reflected on by the participants who were learning Croatian. The native speaker was viewed as their authentic resource to assist in learning about and understanding modern day Croatia. There were no comments of this nature from the ESL participants. They did not have cultural heritage from Australia. Their motivation for learning English was different. Nevertheless, they also found having access to a native speaker beneficial. Their personal benefits were expressed differently; they focused on self-improvement of their language skills. All participants from the Skype groups enjoyed learning about Australian culture and found speaking with a native provided them with information about the culture that a textbook could not: “Working and chatting with native speakers is really a new experience. It’s unusual to have that kind of class, but in my opinion its better because it’s a perfect combinations [*sic*] of learning but having fun at the same time” (Participant 6).

Another important resource that presented in the results was that 17 participants viewed the learning space created by Second Life as a suitable simulated environment for learning. The participants appreciated the detail and replication of real locations as virtual locations. Although the virtual environment was not the real location, the closeness to reality proved interesting. The participants were interested in how the locations looked, the layout and whether they did or did not represent the real locations accurately. The CSL participants appreciation of the Zagreb and Dubrovnik virtual locations and their experience in them was evident not only in their responses regarding their positive experience but also in their disappointment at the way some Australian virtual locations did not provide an accurate representation

of any city in Australia. While the ESL participants enjoyed seeing the Australian icon: the Opera House, the CSL participants from Australia were disappointed that the remainder of the virtual location did not represent Sydney accurately. Although the participants residing in Australia felt that the Australian locations could be improved, the participants located in Croatia and BiH enjoyed their virtual visit to Australia. Participant 8 explained how the virtual learning space offered the participants more information to engage with than just the task text:

It was good to see things in Australia and Zagreb. My partner did not go to Zagreb before and was excited for this. We talked about some shops we could see in virtual Zagreb like Školska knjiga (School Books). It was fun. I read about things in Australia on the signs that were there. I liked the Opera House and in virtual Zagreb was a cinema. I could watch a real movie but small one. (Participant 8)

There was an interest in the authenticity of places in Croatia with the participants walking the virtual streets wondering whether they resembled the real streets, as demonstrated in Participant 18's comment: "It was bizarre walking around a world of Zagreb when I have never been there, but it was like I was there because apparently it is similar. It will be interesting to go there and see what it's like in real life." Participant 8 had linked the virtual learning environment with an interest in the real environment and displayed anticipation for linking a real experience of being in Zagreb in the future with the memory of the virtual experience. Whether the participants will or will not experience a sense of familiarity and the feeling that they have been to a place before once arriving in a real place they have got to know virtually is an area that requires further research.

When comparing Second Life with Skype, the data demonstrated that Skype provided the participants with a strong sense of authentic audience with the participants being able to see one another. Second Life provided a sense of an authentic audience for the participants as they knew the avatars they were speaking with were native speakers but not being able to actually see their partner was a pitfall for eight participants. They knew their partner was an authentic native speaker but not seeing them did not enable them to develop a closer relationship with them as desired. Not seeing one's partner also made the development of trust in the relationship difficult for one participant who felt that she could not develop a sense of trust with a partner she could not see. Seeing one's partner and connecting with one's audience face-to-face put pressure on the participants who were learning

Croatian to perform and practise, two examples being: “It was different because you're sort of on your own and your partner tells you if you were correct or wrong” (Participant 13) and “Yeh, I did spend more time learning the words, or, ah making sure I really did know them and I would sometimes get my dad to test me and I don't usually do that. I was scared of stuffing up too much when I was talking to my partner” (Participant 33). The skill level of the ESL participants on the pre-tests was much higher than those of the participants learning Croatian, leading to a feeling of being more comfortable with the communicative situation.

5.1.6 Strategy Use and Effectiveness

The participants were not provided with any training on what to do if communication (comprehension) broke down during the facilitation technique task work. They were not provided with strategy training for communicating in an online learning space. When asked which strategies they used when communication broke down, many participants reported using meta-cognitive strategies (O'Malley & Chamot, 1990) such as planning for their learning with 29 participants having increased their practice or learning of vocabulary and grammar in between tasks on their own or with their partner. Some participants used repair strategies (Ellis, 2005) to re-establish meaning such as asking for a word to be repeated with 12 participants reported having doing so from the Skype facilitation technique groups and 14 participants reported using this strategy from the Second Life facilitation technique groups. A total of 9 participants across both techniques (6 from the Skype group and 3 from the Second Life group) used the strategy of asking for meaning. IM featured as a popular technique for 16 participants who were using Second Life compared with 6 participants who used Skype. This may have been caused by a number of issues: the participants had complained about technical issues and IM required less bandwidth than speaking; and the participants may have found their native speaker difficult to understand and wanted the written version of a word to clarify their understanding: “You could then revert to typing what they may not be able to hear um because sometimes her reading skills were better than her listening skills” (Participant 36). Chen and Chang (2011) asserted that having text options to assist listeners helps them solve the issue of having a loss in comprehension without wasted time with learners becoming frustrated. The interview results support Chen and Chang's findings. Participant 4 found the speaking speed of their native speaking

partner frustrating: “Some of them are speaking too fast and sometimes is not [*sic*] easy to understand words they are using” (Participant 4). The IM feature was demonstrated to the users of Second Life and was easily seen on the Second Life browser throughout the tasks where the IM feature on Skype was not discussed prior to use of the technique and may not have been apparent as one participant resorted to writing on paper and showing the word as opposed to using IM: “I used my hands to explain and I wrote it down on paper and then showed him the paper to the camera” (Participant 21). This elaborate assistance demonstrates how, when the desire exists to communicate between two cultures and across language barriers, interlocutors can work to find a way to communicate if desired. It also signifies that perhaps Participant 21, although reporting having known how to use Skype, was not aware of all the functions available. Training in the basic affordances of an online tool may be preferred regardless of whether the participants report as being competent users of the online tool or not.

Fifteen participants utilised other online tools as part of their repair strategies such as using an online dictionary or translator demonstrating that these participants more than likely used these online tools to assist them in their studies prior to participating in one of the facilitation techniques. The finding is consistent with Szedmina and Pinter’s (2010) assertion that learners are able to access and use online dictionaries when utilising video-conferencing tools such as Skype. One participant found a translator in Second Life and used it when required. Using the virtual learning space for visual assistance/cues was a repair strategy for two participants. Further research is required to ascertain whether learners use the visual cues in the virtual learning space to establish and maintain meaning during conversation prior to needing to consciously repair a loss of meaning. Also, investigation is required as to whether the participants did not report using the virtual learning space/environment for cues as they were unaware of the potential around them while they were trying to deal with the linguistic aspects. In the classroom, these participants were accustomed to learning from a textbook and using repair strategies that did not include an environment. The effect of strategy training for learning languages in a virtual learning space requires further investigation to ascertain whether the training can assist learners in selecting online strategies for use and whether they include the environment as a visual resource to assist in repairing meaning.

Various strategies were used by the participants to restore their

comprehension with 33 comments being made regarding the processes the participants followed for repairing their own loss of meaning which incorporated multiple strategies. In this manner, the participants were problem solving by trialling different strategies and solutions until they reached their goal of regaining meaning. Both facilitation techniques enabled the participants to effectively use these strategies. Examples of combinations included: “I asked my partner to say it again and slowly and I tried to figure out the meaning based on the sentence. If this didn't work, I just asked what it meant in English. Sometimes my partner would direct me to look at something in Second Life” (Participant 31) and “He sent it as an IM to me and then I used Google translate to see what it meant” (Participant 14).

5.1.7 Effectiveness of the Facilitation Techniques Related to Ability Level

In the beginning of both facilitation techniques, the participants were given a pre-test to ascertain whether the content was at an appropriate level. The results of the in-depth interview for all groups demonstrated the variety of reasons why the participants were enrolled in their language courses. It also showed the differences in prior knowledge between the participants entering the same course or subject. The pre-test effectively identified the participants who had already developed their listening comprehension skills for the content that was planned to be focused on during their treatment period. For these participants, the content was adjusted accordingly from the beginning of the technique. If pre-testing had not occurred, these participants would have found the tasks easy and would not have been presented with any new vocabulary or themes to learn. For this reason, pre-testing was a vital and an effective aspect of the facilitation techniques.

Although the quantitative data demonstrated that all groups made statistically significant progress and both facilitation techniques were effective for assisting the development of listening comprehension, effectiveness appeared to be potentially influenced by the language the participants were learning. The results of the statistical analysis demonstrated that listening comprehension development using the Skype facilitation technique resulted in a greater gain for the CSL participants than the ESL participants. Further investigation to determine why this occurred considered the pre-test mean scores for the CSL participants. The difference in mean scores indicated that the CSL participants were also at a lower level of proficiency to begin the same facilitation technique and content set. The results could be

demonstrating that lower level proficiency groups made more gains using the techniques over an eight week period than intermediate level participants or more advanced level participants. It is important to consider that the ESL participants also made significant gains. As both sets of participants made significant gains using both techniques with the CSL participants making greater gains than the ESL participants, an investigation into which online technique better suits which ability level needs consideration.

5.2 Affordances of Second Life and Skype

When selecting online tools for various learning aims, it is important to consider the affordances of the online tool and which online tool is most suitable for the particular learning situation (Peterson, 2010). For this to occur successfully, the affordances of online tools need to be investigated for their use in the development of language skills (Chen & Brown, 2011; Kessler, 2010). Gaining knowledge of the affordances of various online tools will assist educators in developing an understanding of the online tools available to them and what their capabilities are so that educators are able to align learning aims with learners' needs and suitable tools to provide a variety of learning experiences to cater for different learning styles (Stockwell, 2007). The affordances of using Second Life and Skype are considered for their positive and negative attributes for developing listening comprehension and for circumstances when an affordance can be either positive or negative depending on the task requirements and the learner. The affordances will be compared to ascertain which tasks may be better suited to which learning situation or aim as Participant 7 pointed out: "both are good, but they are different".

Both Second Life and Skype could be used to assist learners in meeting with native speakers of the target language from the target culture. As Cziko (2004) noted, the standard language classroom is limited in the range of themes and vocabulary that can be covered. The results from the interview demonstrated that speaking with a native speaker provided the participants with a wider vocabulary and content, topics or themes that were not usually covered in the classroom. This was particularly so for cultural content. As the participants from Croatia were not necessarily planning on visiting Australia, they found the content and communication interesting. All participants learning Croatian, except one, were doing so for personal reasons in that they had Croatian cultural heritage or were married into a Croatian (or

for two participants, Serbian) family. For these participants, their partner was a valuable resource for providing important cultural information on modern day Croatia and on Croatian culture in general. The participants were able to find out information that was of interest to them, in this way the dialogue and learning catered for their individual needs. They asked further questions and discussed topics of interest to them. They were interested in the topics and had their personal needs catered for which assisted them in being motivated to learn. The lack of resources in Australia about modern Croatia and Croatian culture may have contributed to the participants learning Croatian having increased motivation to put extra work and effort into their learning. One ESL participant commented that the CSL participants in Australia have limited resources where in Croatia the ESL participants have access to many resources in English including English movies. The CSL participants viewed their native speaking partners as important resources. They had limited opportunities (8 meetings) to utilise this important resource. Pre-test scores demonstrated that the CSL participants also began the course at a lower level and needed to put in extra effort to participate effectively in the task work and take full advantage of having a native speaker to practise with for an hour a week.

Both Second Life and Skype offered participants the opportunity to communicate synchronously. This affordance has been already documented in several studies (e.g., Deutschmann, Panichi & Molka-Danielsen, 2009; Tian & Wang, 2010). The participants did not need to wait hours for a response. They communicated in real time and were provided instant assistance when required. If they could not comprehend what was said, they used a variety of resources at that time to re-establish meaning. This was an important step in the communication process. Once meaning was re-established, the conversation continued. When developing listening comprehension through synchronous communication, there is an opportunity to also develop speaking skills. One participant commented on the benefit of synchronous communication when learning a language and error is made: “You're sort of on your own and your partner tells you if you were correct or wrong” (Participant 14). Participant 14 highlighted the problem of the pressure that synchronous communication can have on the participants by explaining that due to his low level speaking and listening skills, he reverted to speaking English most of the time: “Well we did speak a lot of English because I just don't know enough Croatian. When I know more Croatian I could get more benefit” (Participant 14). The

participant found learning about Croatian culture interesting but did not improve his Croatian language skills as desired. Nevertheless, the pressure to perform in a synchronous conversation with a native speaker resulted in the CSL participants feeling stressed enough to practise more in between tasks.

Second Life and Skype also shared another affordance in common, this being the ability to use other online tools easily while speaking with their partner in Second Life or Skype. Second Life also offers online translators, which were discovered and used by one CSL participant. Online dictionaries and translators were used by a total of 16 participants. Using these online tools comprised part of the strategies the participants used to restore meaning, their availability and ease of access places them as affordances as well. This was the third most popular choice of strategy that the participants chose to re-establish comprehension of the conversation they were having with their partner. The second most popular choice of strategy that had a total of 22 participants using it was IM. Both Second Life and Skype contained an IM feature. The IM feature could be displayed and used at the same time as the video image in Skype and at the same time as the virtual learning space in Second Life. Second Life allows for messages to be sent on the bottom left of the viewer that can be seen by any avatar in the area. The participants were able to send a message to one another when they needed to as well as view other avatars' conversations that may be occurring via text chat in the area. The function allows words and conversations with avatars' names identified with their messages to be viewed for a few seconds and then they disappear. The conversation occurs in time sequence of avatars entering their message. Second Life also has an IM function that is private between two or a group of avatars that is not displayed on the viewer. Messages sent through this private IM function can be stored for later viewing enabling learners to review messages for learning. The feature is also available in Skype chat. Skype chat logs can be revised by clicking to view conversations that occurred at certain times, for example, a week ago. Being able to view past conversations is a very helpful affordance of Skype as language learners can reflect on conversations. The participants did not need to worry in the moment and write down new words that had been sent. They could continue with their conversation and look at the new words once the lesson was completed. The affordance of having IM available to assist listening comprehension development has many positive benefits while it can be used in a counter productive manner for developing listening comprehension by the

participants reverting to sending messages instead of listening if listening is more difficult for them. The participants in this study did not report using text messages as a preference to speaking and listening, except one pair who reverted to using IM due to technical Internet speed issues causing a lag in their spoken conversations. For such a circumstance, IM is again a benefit as, although listening comprehension development ceases for that period of time, communication and other language skills can still be developed and the opportunity for learning with a native speaker is not entirely lost.

Aside from being able to see messages displayed on the Second Life viewer from other avatars close by, Second Life also enabled the participants to listen to other conversations between other avatars who were in close proximity. Being able to eavesdrop on native speakers of the target language provided the participants the affordance of entering Second Life at other times and listening to language being spoken by native speakers in a natural and social manner: “When we teleported there, we could hear other people talking. It was interesting to listen to lots of native Australians talking like normal with each other” (Participant 6). It is worth noting that unknown avatars in Second Life could come from anywhere in the world. If they are speaking English, they could be native speakers or the English they are speaking may be at a poor ability level. They may be ESL learners themselves. They may also have a heavy accent when speaking English. Nevertheless, there are locations available that were made to represent aspects of particular cultures and were developed for individuals from cultural groups to spend time together. Learners may find native speakers at these locations. Finding random avatars to actually speak with featured as a positive affordance for three participants, who had conversations with other Croatians they found in Second Life. Participant 18 explained how she could speak only a little Croatian with the person she had spoken with: “I even went in a few extra times other than ours. I met a Croatian man there and I used my introductions but after that I couldn't say too much. It was fun” (Participant 18). The affordance of being able to meet and socialise with other avatars could be of more benefit to learners at intermediate and advanced levels who could continue their conversations in Croatian unlike Participant 18 who did not possess the necessary skills at that stage. Being able to listen to a variety of native speakers also allows learners to be exposed to a variety of accents and themes. The participants were able to access this resource in their own time for as long or as short as they pleased.

Wehner, Gump and Downey (2011) posited that learning about the target culture prior to visiting the target country may assist learners in reducing the potential culture shock they may feel when visiting the target country. Along with the opportunity to speak with native speakers and learn about the target culture, Second Life provided the affordance of being an immersive environment. The users of Second Life create their own content for their own purchased land. When a user has created an environment that resembles major aspects of the target culture, the environment itself can also be a source of information for language learners. The CSL participants commented on the environment and the positive aspect of being able to learn in a virtual Croatian environment (or learning space). Positive aspects of the environment included the environmental print and having the opportunity to walk the streets of a location they have yet to visit. It is important to note that the content may not be accurate as the owner has the freedom to create what they please. For this reason, educators may choose to purchase land. An ESL participant made the statement that walking around virtual Sydney and seeing the Opera House was similar to a virtual travel advertisement: “It was fun walking and finding places and shopping. When I saw the virtual Opera House I wanted to go there. It is good for tourists to see before they go, like an advertisement” (Participant 7). There was much interest in how authentic the virtual locations were indicating that the participants were interested in the target location and the possibility of virtually preparing themselves for visiting the real location: “My partner did not go to Croatia before and he liked this so much. He asked me questions about real Zagreb, if it was like Zagreb in Second Life and many things were” (Participant 7). Participant 18 considered virtual Zagreb and pondered whether when she visited real Zagreb she would be able to recognise aspects of real Zagreb from her time spent in virtual Zagreb: “It was bizarre walking around a world of Zagreb when I have never been there but it was like I was there because apparently it is similar. It will be interesting to go there and see what its like in real life” (Participant 18). Participant 18’s comment highlights the importance of the virtual environment and the influence it could potentially have on learners if it was created to exactly (or as close as possible) mimic the real target location. Learners, as did the participants in this study, could have the opportunity to walk the streets of the virtual target city and learn their way around the virtual location. They could familiarise themselves with shops, memorials, statues, cafes, restaurants and other facilities as well as meet avatars

which represent people from the actual real location. Further research is required to ascertain whether learners could gain a sense of familiarity when visiting the real target location after having spent time in the virtual target location and whether this sense of familiarity results in positive feelings and reduced culture shock.

Second Life and Skype did not share the affordance of being able to see one's partner. Skype has the affordance of video conferencing allowing partners to see each other while communicating. Second Life does not. The affordance of seeing one's partner resulted in positive and negative feelings in the participants. The same was so for the affordance of not being able to see one's partner that also received positive and negative comments. Skype allowed participants to access non-verbal expressions that could be used to assist in communication. Being able to see one's partner featured as a benefit receiving 12 comments. Participant 17 commented on how he often knew he had made an error by the expression on his partner's face: "Well I could see straight away if I said something stupid from my partner's facial expression. That was funny" (Participant 17). Participant 16 explained that Skype allowed for partners to make a personal connection and develop a friendship, where Second Life was a fun environment where the participants focused on completing tasks: "Skype was more personal and friendly. Second Life was more fun orientated" (Participant 16). The participants' facial expressions being warm and friendly or interested appeared to have added to building the personal connection. Seeing one's partner caused some participants stress in the beginning of the treatment period that resulted in feelings of embarrassment when communicative meaning was lost or errors were made. For example, Participant 39 explained, "At first I found it embarrassing because I didn't have the correct accent and sometimes I didn't understand the grammar but with instant communication is instant correction and learning". Interestingly, one participant commented that seeing one's partner could also be considered a pitfall of the Skype technique as one needed to ensure that they looked good at each meeting as these meetings occurred during the participants' spare time usually at their home. Kavanagh and Levak (2011) asserted that when establishing virtual teams, it is beneficial to begin team work with a face-to-face meeting, such as a Skype meeting. It may have been more beneficial to begin the Second Life facilitation technique with one Skype meeting to establish the personal connection between partners and the feeling that the person is a real and known person behind the avatar that is used to represent the person in Second Life.

Although the participants know the person is a real person, it is a question of who they really are. Following the initial meeting in Skype, tasks could take place in Second Life and partners may feel like they have a greater sense of knowing the person they are working with. Whether having an initial meeting relieves the feeling of distrust and distance that some participants had requires further investigation. It is worth noting that although the participants could not see each other during Treatment Period 1, four of the six participants continued to have a relationship between Treatment Period 1 and Treatment Period 2 as demonstrated by the ESL participants helping the CSL participants with their language development and course work.

Consideration is also given to the affordances of each facilitation technique in general as well as the tasks using both Second Life and Skype. The results were examined to find information relating to each facilitation technique, the tasks used and organisational aspects of each technique. To use Second Life and Skype in an effective manner to facilitate learning, pedagogy needs to inform the selection and use of the online tools which requires careful planning by educators (Kirkwood & Price, 2005). Thus, the affordances of each online tool and each facilitation technique require attention. For example, an investigation may demonstrate that an online tool has various resources while also demonstrating that the teaching technique used with the online tool did not utilise the affordances effectively. Eight participants believed that the tasks were of benefit in the Skype facilitation technique and nine participants believed that the tasks were of benefit in the Second Life technique.

The tasks in Second Life contained role-playing scenarios of typical events that matched a theme from the content. The role-plays took place in virtual locations that were virtual representations of locations where the focus scenario would usually take place in real life. Both partners were given a role to play in the task. Tasks focused on listening comprehension development but most tasks also provided the participants with the opportunity to speak in their target language with their partners. Five participants commented on the benefits role-playing offered for language learning. A total of five participants explained that the tasks and the virtual environment made the tasks feel more real. The authentic nature of the tasks provided interest and motivation. The participants were able to connect with the content in a similar manner to the way they may connect with the content if they were in the real environment. For example, "I also liked going to Zagreb and pretending to be there. I suppose the world gave, ah, helped us to communicate

because we spoke about what was in there and we did things in there in the same way we would if we were in the real world. Well, kind of” (Participant 15). The tasks were not only viewed as providing the participants with the opportunity to role-play real life situations but it also afforded them the possibility of participating in situations that they were not able to participate in easily in real life, as Participant 3 explains: “It was fun going shopping. I cannot go shopping with a native English speakers [*sic*] in my classroom”. Participant 3 is valuing the life-like nature of the task while appreciating the affordance the virtual world offers: meeting other people from other locations around the world and doing things together, such as shopping. Participant 6 valued being able to walk around places with his avatar. He commented that in the normal classroom situation, one cannot participate in such tasks: “My partner said directions and I had to find the place. So you can see things and do activities with your avatar and usually in the normal class you can’t do these activities. You can’t walk around these places” (Participant 6).

Two participants explained the learning tasks and environment as being similar to that of a computer game: “It was strange at the start. Then I liked it. It was like real life and a computer game” (Participant 5) and “The activities were like games or adventures” (Participant 33). They viewed the experience as positive and fun. The word ‘fun’ was used to explain Second Life and Skype, yet it was only described by the participants as being a benefit of using Second Life. The tasks were seen as interesting by the participants, two examples being: “The virtual world is interesting [*sic*] method for learning” (Participant 24) and “... something interesting and a real challenge for me” (Participant 33). The interest and fun aspect helped to hold Participant 17’s attention to the learning task at times when it was usually difficult to concentrate: “I liked being able to do and learn instead of just listen and learn. I think sometimes it’s hard because we have class after work and I am quite tired and fade a bit so this was refreshing” (Participant 17). Participant 11 explained that the location where the task work took place for Treatment Period 1 was a disadvantage as others around him in the computer lab at the university could hear what was being said: “It would be better if it starts as a homework task. This way there is no need to stress about making error with everyone and the lecturer around you” (Participant 11). This participant’s comment was taken into consideration along with the technical issues faced when the participants were all logged in at once at each university. As a result, the organisation of the tasks was altered to become a

homework task. An affordance of the Second Life facilitation technique was that it could be used to cater for a variety of learning needs and extension. Participant 4 discussed how in Second Life the participants could continue their conversations utilising the environment to assist with themes:

Second life I think is good for entertainment and for talking about other things around you. Ah, on Skype we used the questions. But if you can't think of a theme to talk about then you are looking only at your partner.
(Participant 4)

Skype is not viewed as having this affordance. Skype is seen as having the affordance of being easy to use: “Skype is easier to learn to use ...” (Participant 7).

Learners have a variety of learning styles. Teachers should attempt to plan a diverse curriculum that caters for the needs of various learners and various ability levels (Weigel, James, & Gardner, 2009). The participants acknowledge that both the Second Life and Skype facilitation techniques allowed enough flexibility to cater for a diverse range of ability levels and interests: “Loved it. I was so focused on improvement and this gave me a chance to focus my effort on what I know and need” (Participant 17). The participants that wanted extension work were able to explore other places in Second Life or discuss other topics: “Don't get me wrong, we still did the basics. But after the activity was finished we would talk and we checked out different parts of *Velo misto* and we found a disco in there” (Participant 32). The participants who were visual learners were able to utilise the virtual environment by seeing different virtual objects and speaking about them. Although both facilitation techniques often required the use of visual aids in different forms such as menus, maps, the virtual environment and videos, the participants who were aural learners were able to focus on their conversation with their partner in both Second Life and Skype. They were able to continue conversations on topics of interest to them. There was also music played in the background in some locations in Second Life. The participants who preferred physical motion while learning were not catered for in the real sense of physical movement, yet they were able to gain a sense of moving to learn while immersed in the virtual environments in Second Life, as one participant explained: “It was fun walking and finding places and shopping” (Participant 7).

Examining the affordances of Second Life and Skype builds the conceptual understanding of the characteristics of the learning spaces created by these online tools for the development of listening comprehension. The affordances of Second

Life and Skype are compared in Table 5.1. The list combines the participants' identified benefits with their described experiences from their interviews to create a description of Second Life and Skype and identify what each online tool offers language learners.

Table 5.1
Comparison of Affordances of Second Life and Skype

Affordance	Second Life	Skype
Native speaker	✓	✓
Cultural resources	✓	✓
Cater to individual needs	✓	✓
Synchronous communication	✓	✓
Receive instant feedback	✓	✓
Pressure to perform unlike in classroom	✓	✓
Easily use other online tools to support learning while using Second Life and Skype (e.g. online dictionaries & translators)	✓	✓
IM	✓	✓
IM allows for storage of conversation to be reviewed later	✓	✓
Ability to listen in on other conversations	✓	×
Many locations to visit offering language rich environments	✓	×
Ability to meet random others	✓	×
Environmental print (e.g. posters, signs)	✓	×
Learn the layout of a city and its features: shops; libraries; streets etc.	✓	×
Doing/role playing as part of learning, e.g. shopping for avatar clothes or pretending to shop using online catalogues.	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>
24 hours access	✓	✓
Caters to a variety of learning styles.	✓	✓
Interaction in the technique is purposeful	✓	✓
See one's partner	×	✓

Both Second Life and Skype featured the affordances: ‘doing as part of learning’ and ‘caters to a variety of learning styles’. The difference between the online tools appeared to be the degree in which the participants could experience each affordance. Second Life offered the educator the ability to design tasks that cater for more learning styles than Skype in that Second Life offers learners the ability to create content in the environment, virtual physical movement such as walking, dancing and flying, and non-verbal abstract and spatial learners can explore content and themes in three dimensions while listening to native speakers of the target language. Second Life also provides more opportunities for doing/role playing as part of learning, as the participants’ avatars were able to walk around locations and visit various places that focused on different learning themes, an example of this difference being: in Skype, the participants could go shopping over the Internet and still speak to one another, while in Second Life they could visit shops together and see the items in the shop virtually. They could purchase items, if desired, and wear them on their avatars. They were able to speak to real avatar shop assistants. There were locations in Second Life where clothes are offered for free. Most shopping locations required the avatars to purchase items using Linden, which is the currency used in Second Life. To have Linden money, one must buy it using a real credit card through the Second Life website. In this sense, the shopping experience can be very much real with the main difference being that the clothes are purchased for an avatar that will wear them as opposed to the human wearing them. Websites could be viewed in Second Life that had been placed there by real world companies to advertise their wares. Virtual shops can have avatars on site who will discuss the features of real items with an interested avatar shopper. The shopper can then be directed to the company’s website and purchase the item for themselves online. Shopping in Second Life is a real experience where real items for the real world can be purchased as well as virtual items for the virtual world. Participant 18 summed up the experience as being:

I liked being able to look at virtual versions of what we were learning about. The shopping activity was like this as we went into real shops as real money can be spent on avatar's clothes there. I didn't. We found a free shopping location and got clothes from there so we didn't look like newbies.
(Participant 18)

Second Life and Skype shared 13 affordances with 6 affordances helping to define their difference and their suitability for certain learning tasks to assist in the

development of listening comprehension.

5.3 Continuum of Language Learning Spaces

In Chapter 2, the literature regarding language learning and listening comprehension relating to Second Life and Skype and similar tools was explored. The type of learning spaces a learner may utilise to develop their language skills can be varied depending on their personal situation, for example, Learner A may come from a Croatian background and be studying Croatian on location at a university (internal mode). Learner A would be able to study in her personal learning space alone and/or with others who are from a Croatian background to practise language skills, expose herself to new content and practise listening to native speakers and other speakers of various levels. Another differing example would be Learner B who is studying Croatian externally from home and is provided learning material on their course Web page and/or via post. Learner B may be engaged to a Croatian and be trying to learn so that he can speak with his fiancé's family. Learner B's learning spaces differ greatly compared with Learner A's learning spaces in regards to: the amount of access he has to native speakers and interaction with native speakers; the types of reading material and writing opportunities available; the way learning is organised (individual, pair group, small group, or large group learning situations); the type of resources available to assist with learning; and the type and frequency of corrective feedback available. Learner A and Learner B's learning opportunities differ. The identified problems learners can face that can influence their learning outcomes outlined in Chapter 2 (e.g., limited access to native speakers, delayed and limited corrective feedback, and limited access to authentic resources) may influence Learner A and Learner B in different ways. For example, Learner A has access to potentially more resources and assistance in achieving learning outcomes for listening comprehension development than Learner B's potential access to resources and assistance for achieving learning outcomes. Learner B's environment contains many of the identified obstacles to listening comprehension development.

Community learning spaces are places where learners such as Learner A and Learner B can access activities and services that allow them to participate in the target language culture. Community clubs and centres where cultural events take place and some members speak the target language are examples of such learning spaces. Clubs may also exist without a physical location where members meet up

regularly and socialise, such as the Australian Woman in Split club. This club consists of women who were born in Australia and have moved to Split. They meet socially once a month. ESL learners who are interested in Australian culture could ask to attend the gatherings to meet Australians, practise speaking in English with them, practise listening to native speakers in group conversation and ask questions about the culture. If Learner B did not live near any community learning spaces, his access to authentic listening opportunities in the target language would be limited.

In an attempt to provide all learners with the opportunity to access a diverse range of resources and opportunities for interaction with native speakers, it is suggested from the findings that including online collaborative learning spaces (such as Skype) and virtual immersive learning spaces (such as Second Life) into the options that learners can utilise will assist learners with overcoming their obstacles to developing listening comprehension. The participants' interview data identified the affordances of these learning spaces and in particular Second Life and Skype as providing opportunities for learners to gain access to native speakers, receive synchronous corrective feedback, and access authentic and interesting resources.

Table 5.2

Continuum of Language Learning Spaces

	Learner's personal environment as a learning space	Community learning spaces (e.g., cultural community clubs, businesses)	Classroom environment as a learning space	Online collaborative learning spaces (e.g., Skype, forum)	Virtual immersive learning spaces (e.g., Second Life, Reaction Grid)	Country where target language is spoken natively
Verbal interactions with native speakers	<p>Different forms depending on learner. E.g. individual learning without access through the computer - small amount or no exposure to foreign language (Jin & Erben, 2007), may have interaction with significant others who speak the target language (Wardhaugh, 2006)</p> <p>Exposure to listen to limited topics for limited purposes such as watching a movie in the target language or topics of typical discussion by significant others (If studying</p>	<p>Interaction with native speakers or second/ third generation speakers of the target language.</p> <p>The native speakers of second / third generation speakers provide the examples of the target language that may represent current language use in the target country or may contain out-dated terminology and grammar errors.</p> <p>Exposure to listen to topics that are used at the community location.</p>	<p>Language can be spoken slower than native speed (Hadley, 2001)</p> <p>The educator is the example of native speech (if native)</p> <p>The educator has selected topics & purposes for language use.</p>	<p>Spoken communication with native speakers via video conferencing and VOIP (Cziko, 2004). Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) can be at native speed if spoken.</p> <p>Variety of topics & purposes for</p>	<p>Spoken communication with native speakers via voice chat. Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) can be at native speed if spoken.</p> <p>Variety of topics & purposes for language use can be found.</p>	<p>Spoken communication with native speakers via face-to-face communication. Language is spoken at native speed.</p> <p>Natural speech containing false starts, dialect & errors.</p> <p>Interaction is purposeful. collaborating, constructing knowledge (Antonacci & Modares, 2008) at native speed when spoken.</p> <p>Variety of topics & purposes for language use can be</p>

	externally: the educator has selected topics & purposes for language use.)			language use can be found.		found.
Reading and writing material/opportunities	Reading & writing selected materials for personal purposes or as directed homework.	Reading & writing materials on display or provided by the community group.	Reading & writing constructed texts for learning purposes (Hadley, 2001), such as: texts from a textbook; taken from the internet; or created by a teacher. The purpose is usually teacher directed and in response to instructions in class.	Reading & writing authentic texts as part of teacher organised task work; online authentic material; authentic communication via IM or email used for a purpose to achieve a goal or solve a problem.	Reading & writing authentic texts as part of teacher organised task work; IM in virtual world; environmental print of signs, posters, shop names etc. used for a purpose to achieve a goal or solve a problem.	Reading & writing authentic texts as part of a dialogue used for a purpose to achieve a real world goal or solve a problem.
Learning organisation/grouping	Individual	Group	Individual, pair, small group & whole class learning opportunities (Hadley, 2001)	Tandem learning (Ehlers, 2007), individual & groups.	Tandem learning (Ehlers, 2007), individual & groups.	Individual, pair, small group, large group learning opportunities.
Available resources in the learning space	Possibly relatives or significant others. Listening & viewing media computer programs (computer as a tutor)	Community members Cultural knowledge from significant others that may/ may not	Possible posters the educator has placed on walls in the classroom, textbooks, magazine.	Perhaps documents on a wiki or forum. Video conferencing. IM Cultural knowledge available through	Exposure to language in different forms, eg: posters, signs; music; conversations; & immersive (Cook-	Language is displayed in the environment in different forms. Cultural knowledge available from

<p>Cultural knowledge from significant others that may/ may not represent an outdated version of modern times in the target country. Cultural knowledge from textbooks.</p>	<p>represent an outdated version of modern times in the target country.</p>	<p>Cultural knowledge comes from the educator & textbooks.</p>	<p>online conversations, websites produced by native speakers & educators.</p>	<p>Plagwitz, 2008). Virtual worlds: a representation of the country of the target language.</p>	<p>natives through conversations on a variety of themes & also provided as part of the environment, such as: music, posters, signs, memorials & buildings.</p>
				<p>Cultural knowledge available from natives through conversations, websites displayed in the virtual world, and environmental layout and text. A virtual location can be made as a close replica of a real location & use the copies of the music, posters, signs, memorials & buildings.</p>	
				<p>24 hours access enabling usage whenever the learner desires.</p>	
				<p>Ability to learn the virtual layout of a city, its features and signage before arriving in the target country.</p>	

					Able to listen in to other avatars' conversations as a means for improving listening comprehension and vocabulary development.	Able to listen in to other people's conversations in public locations such as cafes.
					Caters to a variety of learning styles.	
Corrective feedback	None or from relative/ significant other. For external students: interaction minimal via grading & teacher comments.	Corrective feedback is based on the experience and knowledge of the community members as well as their interest to assist in language development	Immediate corrective feedback from the teacher or classmates during class time.	Feedback can be immediate through VOIP, video conferencing or IM. Facial expressions can be used and hand gestures. It can be delayed when online tools such as email and forums are used.	Feedback in immediate. It can be provided via IM or voice chat. Assistance can also be provided using links to other online tools.	Feedback is immediate. It can be delayed when letters, reports or emails are used.
Access to learning space	All day access	Varied depending on the community group.	Class time	All day access	All day access	All day access

Note: Additional information gained through the interviews is provided in bold font. Other information gained as a result of the study has supported the literature review.

The continuum of language learning spaces demonstrates the various learning spaces available to language learners, who do not live in the country where the target language is spoken natively, on a continuum from the learning space that is considered to least likely share characteristics of the country where the target language is spoken natively (target country) to the learning space which shares the most characteristics of the target country. The continuum of language learning spaces was adjusted following the interview results. With the added information gained from the interviews and the interview data supporting the literature review and additional information being represented in bold font, the characteristics of virtual learning spaces appear to share many of the characteristics of the target country. The major difference between the two being that in the Second Life participants could not see a human for whom they really are and access their facial expressions whereas in real life they can. This difference was indicated in the data with 8 participants commenting that it was a pitfall of using Second Life and 12 commenting that it was a benefit of using Skype.

Using collaborative online tools such as Skype provided the participants with many benefits. The participants also provided comments on how they utilised a combination of learning spaces in their day-to-day lives that were beneficial for developing their language skills and listening comprehension. The participants explained that they put extra time into practising and learning vocabulary and grammar with 17 participants doing so before meeting their partners online. The pre-listening activities were an important part of their learning. The participants used a variety of preparatory activities, these being: they practised vocabulary, reviewed task requirements, planned their responses and practised dialogues with other family members who had the same cultural background. It is necessary to note that the CSL participants felt the need to practise more before tasks than the ESL participants who mainly pre-read the tasks for preparation. Nevertheless, the preparation was achieved in the learner's personal learning space. The learner's space allowed for study and the utilisation of significant others and family members as resources for learning and developing listening comprehension, for example, Participant 16 used his wife to practise dialogue with in between tasks: "I spent a little more time than usual because I practised with my wife what I would say. She would pretend to be my partner. I was more particular about knowing what I would say". Family members and friends from the target culture can provide examples of a different version of the target

language and different usage of words due to factors such as: their regional dialect being different from the standard version of the target language; how many years they received formal education (Wardhaugh, 2006); how long it has been since they last visited the target country; and the dialect of the target language that their social group is using. Participant 17 commented that the only time he heard and used aspects of the target language was when his parents were socialising: “I didn't have real conversations with people just the type of conversation when we would visit my olds' [note: olds' is used as a colloquial for parents'] friends” (Participant 17). The ESL participants who did not put any extra time into their task work were also studying English in the classroom which included homework tasks as Participant 26 pointed out that she felt more pressure to prepare for her course at the University of Mostar: “When I was using idioms with ... [*partner's name removed*] I just filled in the blanks. If it was in Mostar, I would give more attention to it”.

5.4 Facilitating Listening Comprehension Development Using Second Life and Skype

Online tools might facilitate learning development more effectively when they are selected and used in combinations that are designed to optimise the affordances of the online tools and what they reveal and conceal to the user. With explicit aims and alignment of the online tools, the educator may be able to carefully facilitate the learner through stages of their development. For example, Kavanagh and Levak (2011) in their investigation of Grade 2 critical thinking and literacy skills development utilised both Skype and chat rooms for virtual class team work. Skype was used in the beginning as students and their partner class could see one another and establish a relationship. For following meetings, a chat room was used as virtual whole class teams were asking one another questions. The chat room was preferred as students were hidden and only their questions or answers were revealed in the form of text. The chat room did not allow the Grade 2 class to see one another and that was a preferred option for teachers to support behaviour management. It also allowed classes to predict and discuss what their partner class might answer without the partner class hearing them. Although this example focuses on the development of general literacy skills, it demonstrates how different online tools can be successfully used to facilitate learning in conjunction with one another based on the aim of the task and the affordances of the tools. The online tools being selected based on the

learners' educational and emotional needs.

As Pawan, Paulus, Yalcin, and Chang (2003) asserted, technological tools should not be used in the classroom simply because they are available for use. Stockwell (2007) explained that teachers need to have knowledge of the main online tools available and their affordances. If they also have experience with working with the online tools themselves, they will make better choices for learners when planning language learning experiences. Teachers' choices should be informed and deliberated on. The affordances of Second Life and Skype were identified throughout the interviews along with the benefits of each technique used. Group 3 and Group 4 participated in both facilitation techniques. They provided reflections that compared the benefits and pitfalls of the Skype facilitation technique with the benefits and pitfalls of the Second Life facilitation technique. Suggestions were also made as to how the technique could be improved. These suggestions provided further depth of understanding into the participants' experiences working with these online tools. The variation in some suggestions demonstrated the impact individual differences had on the participants' experiences.

Liou (2011) stressed the importance of clear language learning objectives guiding the creation of suitable tasks when using virtual worlds for learning. With consideration to Liou's assertion and the recommendations made by the participants, a combination of using Second Life and Skype might be a more effective method for developing listening comprehension. The framework for the selection and use of ICTs for facilitating SL learning outlined in (Figure 2.1) was used to evaluate and recreate the facilitation techniques. The framework is cyclical and is intended for use by educators who aim to develop best practice in their use of ICTs for language learning. Each cycle should inform the next with further understanding of the affordances of online tools being recorded and disseminated. The results of the study indicate that the framework was an effective tool for assisting in planning for developing listening comprehension skills using online tools. The participants were pre-tested to ascertain their educational needs. The information gained from the pre-tests resulted in changes being made to the content used for some participants to ensure that aims focused on the participants learning within their ZPD. The affordances of Second Life and Skype were considered when the facilitation tasks were created with the tasks varying according to each online tool's affordances and based on the learning aims. For example, for the directions task in Skype, the

participants were provided maps to read and they listened to directions needed to find a final destination. Second Life had the affordance of avatars and 3D locations. These affordances allowed the task to be organised differently in that the participants were able to read their partners' directions and their partner could walk the directions in the virtual location in an attempt to locate the correct final destination.

After the participants completed the treatment period, they were post-tested to ascertain whether they had made significant progress in their listening comprehension development. This process was effective as it enabled educators to measure the participants' gain and the success of the facilitation technique. The participants' reflections were an extremely important part of the framework. The reflections made by the participants during the interview enabled a picture of the affordances of each online tool to be constructed and enabled an analysis of how the facilitation technique could be used.

All participants found their experiences to be positive when using either Second Life or Skype. One participant expressed the pleasant nature of being able to make a visual connection to the physical presence of her partner in real life form: "It was a very good opportunity to see my partner and meet him after Second Life [*sic*] activity" (Participant 1). The interview results demonstrated that the Second Life facilitation technique provided the participants with the opportunity to learn through doing/role playing while being immersed in an environment. Being able to utilise the environment and talk about the objects around them assisted their learning and listening comprehension development. Seven comments were made explaining that the Skype facilitation technique appeared best suited to conversations about the participants themselves and topics that were not as reliant on an environment, for example, the first task in both facilitation techniques was an introductions task. The interview results demonstrate that this task appeared to be better suited to the use of Skype more than the use of Second Life as the task was not reliant on the environment and focused on building a relationship between the pair group members. Being able to meet one's partner via video conferencing and see one's partner featured as a major benefit of the Skype facilitation technique. As Skype was recognised as the more suitable tool for making friendship and getting to know one's partner, it appears that Skype's affordances are better aligned to the purpose of Task 1.

The second task focused on listening to directions and being able to

accurately follow them. In the Second Life facilitation technique, this was achieved by the native speaker saying the directions and the listener walking the path of the directions until they reached the desired location. In the Skype facilitation technique, the aim was achieved by using a map. The native speaker said the directions and the listener tried to follow the directions on the map until he/she was able to identify the target location. Both activities required the listener to follow directions.

Nevertheless, there appears to be benefit in conducting this type of task in both learning spaces as both tasks represent skills that are required in real life. A person may explain directions on a map to another whilst stationary, for example, a tourist asking a person how to reach a location using a map. Although a visual of the final location will be available it is beneficial to be able to understand the directions given by the native speaker as they may explain why one route is a better choice than another. Receiving directions and then walking the directions is also a typical tourist activity. For this reason, the task would be beneficial if it occurred twice: once in Second Life and once in Skype utilising the affordances of both online tools and what they offer the learner for learning to listen to directions.

The third task was the objects hunt. This task was commented on by the Second Life participants as being the task where one must walk around and find things:

Being in an Australian virtual environment makes learning fun like when my partner said directions and I had to find the place. So you can see things and do activities with your avatar and usually in the normal class you can't do these activities. You can't walk around these places. In Skype a picture of a room was used with missing objects. (Participant 6)

The participants were required to listen to a description of where the object was positioned in the room. With the participants commenting that Second Life was better for 'doing' tasks, it would appear that the task would be more interesting and closer to a real life activity if it occurred in Second Life. Learners in the Second Life version of the task were required to search locations as one would in real life if they were trying to find a location. The task incorporated visual information, oral information with a physical response in movement while trying to find an object. Including this task as a Second Life task takes full advantage of the affordances of the 3D virtual physical location.

The describing objects activity could be suited to the affordances of either

Second Life or Skype. In Skype the participants described pictures of objects and in Second Life they described virtual objects in the virtual environment. Although describing a virtual representation of an object in Second Life may seem like a closer experience to an authentic real life activity, either online tool may be appropriate for the task. It appears that the benefit of seeing the object in 3D compared to 2D may not be that different in experience to warrant selection of Second Life over Skype as the online tool of choice for this task. It may be useful to consider the pitfalls of the techniques and consider using Skype if learners are having issues with bandwidth. This task may be best suited as an optional task to allow learners to select their preferred tool and their preferred learning style for the task.

The shopping trip task featured as the most discussed task receiving eight comments from the participants who completed the Second Life facilitation technique. During the task, the participants experienced shopping in a similar fashion to real world shopping: “I liked being able to look at virtual versions of what we were learning about. The shopping activity was like this as we went into real shops as real money can be spent on avatar clothes there” (Participant 18). The task was highly effective and left an impression on the participants compared with the Skype shopping task that did not receive a comment during the interviews. Due to the affordance of being able to walk around a variety of shops, find different clothes and even try them on an avatar, shopping appeared to be more interesting and effective when conducted in Second Life than Skype.

At the Café was the sixth task. In this task, the participants were required to listen to questions from their native speaking partners who were pretending to be waiters. They then ordered what they wanted to eat and drink. A menu was used for assistance. In the Skype facilitation technique, the same menu was used. An affordance of Second Life that provided an advantage was having the environment of a virtual café to complete the task in. The environment set the scene. When learners complete the task, there may also be other avatars at the café leading to opportunities to listen to native speakers discussing a variety of topics. There could be environmental print available for reading and background music playing at the café.

Task 7, the media session, required the participants to watch a weather report and a current news item streamed from an online news channel over the Internet. The pair groups listened to the new items and then discussed the items with one another. The news reports can be streamed directly onto a screen in Second Life yet the time

that is needed to set up the screen and the requirement of setting up a video streaming object for each group when they required it makes this task more efficient to complete using Skype.

The final task entailed describing an event and required the native speaker to describe either a pictorial event in the Skype facilitation technique or an imaginary event (in a virtual scene) at a virtual location in the Second Life facilitation technique. The listener needed to guess either which picture was being described (Skype) or which place in a virtual location an event would take place (Second Life). As the Second Life task required imagination as well as listening skills with the listener hearing a description of an event and guessing where it could take place in the virtual location where they stood, it may be more beneficial to conduct this task using Skype at the beginner level. The Skype version used pictorial information (that was already provided) and listeners looked at a number of pictures and guessed which picture was being described. The Skype version would then reduce the cognitive load on the beginner learners who were not required to imagine the scene when compared with the Second Life version where they were required to imagine as well. If the educator wanted Second Life to contain the scenes being described without change, then the educator would need to own virtual land and make the scenes as desired. The amount of time and money required to do this does not justify the choice of using Second Life over Skype. Hence, Skype is the preferred option for the final task.

5.5 Summary

The Second Life and Skype facilitation techniques assisted the participants in improving their opportunity to interact with native speakers of their target language. The effectiveness of both techniques demonstrated across eight different groups learning two different languages implies that the techniques would be effective for other groups of learners. The results demonstrated the importance of key aspects identified in the literature relating to effectiveness. The investigation assisted in expanding the knowledge of the affordances of Second Life and Skype for developing listening comprehension. The greatest benefit of using Skype was being able to see one's partner, their facial expressions and gestures. These aspects helped virtual teams to build relationships of trust and friendship. The greatest benefit of using Second Life was being immersed in a virtual environment especially when the

environment was built as a replica of a real city from the target culture's country. The results of the study showed that some affordances could sometimes be of benefit and sometimes be of detriment to the development of listening comprehension. They also demonstrated the usefulness of the framework for the selection and use of ICTs for facilitating SL learning as a planning and assessment guide for educators. With a focus on best practice and consideration of the key points of learning from the study, it is recommended that a blended approach to using online tools based on their affordances and the aim of the tasks might be more beneficial than taking a one tool for all tasks approach. During the interviews, the participants identified the affordances of Second Life and Skype. The affordances were specifically evaluated in regards to the specific requirements of each task in the facilitation techniques. Some tasks were selected to be best suited to using Second Life and some to using Skype. As a result, a new facilitation technique was created that uses both Second Life and Skype.

Chapter 6

Conclusions, Implications and Recommendations

As a result of the identified issue of students who were studying Croatian in an Australian university finding it difficult to develop their listening and speaking skills, the literature was reviewed to assist with developing or adopting methods to improve learning experiences for second language learners who did not live in the country where their target language was spoken natively by many. The study aimed at developing new understandings of the potential for using CMC to assist learners who have limited access to native speakers of their target language.

The researcher conceptualized the spaces where students do learn or can potentially learn on a continuum of language learning spaces with virtual worlds being viewed as containing the most similar experiences to living in the target culture. The framework for the selection and use of ICTs for facilitating second language learning was created to assist the researcher in selecting the appropriate online tools which were: Skype and Second Life, and to assist in developing the facilitation techniques based on the affordances identified in the literature regarding these two tools. The languages focused on during the study were: English and Croatian with the 35 participants being located at universities in Sydney and Brisbane in Australia, Split in Croatia and Mostar in Bosnia and Herzegovina.

The study investigated: (1) What SL learners' perceptions of using Second Life and Skype were for developing listening skills in their target language; (2) What effects the use of Second Life and Skype had as part of a facilitation technique on the development of SL learners' listening comprehension; and (3) What the identified affordances of Second Life and Skype were when being used for developing listening skills in a SL. The effectiveness of the facilitation techniques was measured using a pre-test and post-test, with interviews being conducted to explore the participants' perceptions of the techniques and the affordances of each online tool. As a result of the interview findings, the facilitation techniques were adapted to create one technique which utilised the affordances of both Second Life and Skype based on the pedagogical aims of tasks.

This chapter begins by summarising the key conclusions made from the study. The implications drawn from the findings are discussed along with

recommendations for educators of SL. The recommendations focus on the effectiveness of the research methodology, the facilitation techniques and the use of the continuum of language learning spaces and the framework for the selection and use of ICTs for facilitating SL learning for language planning. Recommendations are also made for language learners in relation to planning their own learning in their personal time using the continuum of language learning spaces as an organizational tool. The chapter concludes with recommendations for further studies.

6.1 Conclusions

6.1.1 Participants' Perceptions of Effectiveness

Research Question 1 asked “What are SL learners’ perceptions of using Second Life and Skype for developing listening skills in their target language?” The results indicated that the participants found both the Second Life and the Skype facilitation techniques to be effective for facilitating the development of their listening comprehension. Both techniques were also considered effective at facilitating the development of cultural knowledge and understanding of the respective target cultures. Having access to a native speaker of the target language was viewed as a useful resource for learning language and culture. The participants felt that learning content structured around a theme (schema) assisted their learning particularly when they were participating in authentic conversations around the theme or role-playing typical interactions regarding that theme. They stated that having a virtual environment gave tasks an authentic feel and added another dimension to their learning. In some circumstances, they found that being able to see their partner's face when using Skype provided them with a feeling of proximity to their partner. This affordance was considered especially beneficial during tasks that focused on the participants themselves, such as the greetings and introductions task. The participants considered the tasks from both facilitation techniques to be engaging and fun.

Language ability level was an important factor influencing the effectiveness of the facilitation techniques for 2 CSL participants of the 35 participants in total. They felt that they had not achieved a suitable linguistic threshold prior to entering the treatment period to be able to effectively participate in all tasks and satisfy the requirements of the tasks. As a result, they often began trying to speak in Croatian and then reverted to speaking English to continue their conversations. They also

asked their partners to repeat what they were saying or explain Croatian words in English.

The opportunity to meet a native speaker and participate in an authentic conversation effectively motivated the CSL participants to either put extra effort into their preparation work or the ESL participants to provide extra assistance to other learners. The CSL participants were motivated to improve their listening ability and wanted to perform well when communicating with their ESL partners. They were also motivated to put in extra effort in between tasks to improve their performance. The ESL learners overall began the treatment periods at a much higher competency level in their target language and were motivated to spend extra time helping their partners learn Croatian. The extra help was given during treatment periods as well as in between treatment periods. Two partner groups have since the completion of the study reported to the researcher either in person or via email that they have continued to meet after the study finished to help one another improve their language skills.

Although the participants were not provided strategy training prior to commencing the treatment periods in how to restore meaning when comprehension was lost during task work, all participants used multiple strategies to assist when communication broke down. They either used strategies to regain meaning or to assist their partner in doing so. Both Second Life and Skype allowed users to access other online tools such as an online dictionary to assist them during task work. When using Skype, the participants could utilise their partner's facial expressions and their hands to help demonstrate the meaning of words. When using Second Life, the participants could utilise clues in the virtual environment, such as objects and signs, to help develop their vocabulary or comprehend sentences. Many strategies (e.g., repeating, using online dictionary, using IM, asking for meaning, speaking slowly) could be used in both learning spaces. The ability to use multiple strategies and access other online tools simultaneously added to the effectiveness of both online tools.

6.1.2 Effectiveness of the Facilitation Techniques

Research Question 2 asked: What effects does the use of Second Life and Skype as part of a facilitation technique have on the development of SL learners' listening comprehension? The results indicated that both the Second Life and Skype facilitation techniques were effective at assisting the development of the participants'

listening comprehension skills. The data analysis of the pre-tests and post-tests for both techniques indicated that significant gains were made between the pre-test and post-test period by the participants. Significant gains were made for both the ESL participants and the CSL participants although the CSL participants made greater improvements. There was no statistically significant difference between using Second Life or Skype for developing listening comprehension in a SL.

6.1.3 Affordances of Second Life and Skype

Research Question 3 asked: What are the identified affordances of Second Life and Skype when being used for developing listening skills in a SL? The results indicated that Second Life and Skype displayed similar as well as different affordances. Both Second Life and Skype displayed many affordances for developing listening comprehension with some of these affordances being shared by both online tools. The shared affordances were: access to native speakers from the target culture; authentic cultural content; the ability to use other online tools at the same time such as a dictionary for support, IM, the pressure to perform felt by the participants, instant feedback, synchronous communication, and the ability for both online tools to create learning spaces that can be used to cater for individual learning styles; and the ability to facilitate purposeful interaction through task work. The affordances particular to Second Life were that the participants were able to: overhear others' conversations and view others' text messages in the virtual world; meet random avatars and have unplanned conversations; access virtual cultural locations; hear music at some locations in the target language; walk around virtual language rich environments; view environmental print; familiarise themselves with the layout of the target city and its key features while walking its virtual streets; participate in doing/role playing as part of learning; gain 24 hour access to the virtual environment; and access information that caters to a variety of learning styles. The affordance that Skype displayed and Second Life did not was allowing users to see their partner through video streaming.

There was an interest from the participants in how authentic virtual locations were created to be replicas of places in Croatia and Australia. Some participants commented that they wondered whether the process of learning the layout of virtual Zagreb would assist them or not when they actually visited real Zagreb. For example, Participant 16 linked the virtual learning environment with his own interest in the

real environment and displayed anticipation for linking the real experience of visiting Zagreb in the future with the memory of the virtual experience.

During the task work, the participants were provided with specific activities that they were required to complete. They were not provided with the instruction to try and find or meet other avatars who were not part of the study. Nevertheless, Participant 17 and 32 both met other avatars by chance in Second Life during their task work and at other times and practised their language skills or had general introductory conversations with the other avatars. The contact made with speakers of the target culture featured as a major benefit of both the Second Life technique and the Skype technique. The participants enjoyed making friends with their partner and also viewed their partner as an important resource providing first hand knowledge of the target culture.

6.1.4 Proficiency in Using Online Tools

It was observed through the interview data that some participants may not have been fully aware of the potential educational use of the online tools. All participants had stated that they were efficient users of Skype but that they were not familiar with using Second Life. The participants from Groups 1, 2, 5 and 6 who partook in the Second Life facilitation technique were provided with a manual that outlined how to use the key features of Second Life in relation to the task work. Group 1 and Group 2 participants were provided with face-to-face training on how to use Second Life. Group 5 and Group 6 participants were offered an online training session. Two participants had expressed that they still had difficulty using Second Life and spent extra time learning how to use the features. For these participants the cognitive load of dealing with the new technology and being in a demanding learning situation was too much during the first few tasks resulting in decreased concentration on their listening comprehension development. Once they became more familiar with the technology, they were able to then focus more on the learning task and less on learning how to use the technology. It appears that learners may state that they are competent users of an online tool yet they may not be fully aware of all the affordances the online tool has to offer. For example, Participant 21 wrote words on paper and showed the paper to her partner instead of typing the word into the text chat facility available on Skype.

6.1.5 Challenges Encountered Influencing Effectiveness

The greatest challenges that influenced the effectiveness of delivering the facilitation techniques throughout the study were Internet speed and available bandwidth. These technical issues presented as a problem during Treatment Period 1 when all participants from Group 1 logged onto Second Life in the computer lab at the University of Split at the same time. The amount of available bandwidth did not always support the required amount to allow the whole group to be actively using Second Life at the same time resulting in the slow loading of images and delays for some participants. Participant 11 had suggested that the task be completed as a homework task. This option was utilised during Treatment Periods 2 and 3 resulting in fewer issues for the participants although Internet speed remained a problem at different times for some participants during the study. Another challenge was matching timetables between time zones and universities. Due to semesters having different starting and finishing dates and exam timetables, the study was limited to eight weeks where semester dates matched.

When the Second Life facilitation technique took place during class time (Treatment Period 1), it became important to maintain regular contact with the lecturers who assisted with the implementation of the tasks. Regular feedback enabled issues to be identified early and provided information regarding the progress of the task work. It was important to ensure through conversations that the lecturers comprehended the purposes and relevance of tasks so they were able to support the participants in a suitable manner. It was not appropriate for the lecturers to correct the participants' grammar while they were speaking with their partners.

6.1.6 Continuum of Language Learning Spaces

The triangulation of the results of the study demonstrated that using Second Life and Skype to create various learning spaces can facilitate positive gains. The qualitative results revealed the importance of the various learning spaces that the participants used to develop their language skills. The participants were able to utilise their individual learning spaces at home to prepare for task work and learn vocabulary and grammar structures prior to meeting their partners. They used the class space to develop their language skills with the assistance of their lecturer. They used Second Life and/or Skype to develop their conversational skills listening to their native speaker partners while discussing various themes. They also used the

online learning spaces to develop their cultural knowledge and understanding, viewing their partner and the virtual learning space in Second Life as a valuable resource. The participants were able to support their learning by using other online tools such as online dictionaries to assist their comprehension during conversations with their partners and to build their vocabulary. Each learning space on the continuum of language learning spaces was used, either during task work or in between task work, (with selection of either or both online or virtual learning spaces) by the participants to develop their language skills.

6.2 Implications

6.2.1 Student Perceptions: Interaction and Task Based Learning.

Both online tools were useful for developing listening comprehension. The immense benefit that the participants gained from having access to native speakers for language and cultural development indicates that language courses should include, where possible, opportunities for interaction with native speakers. Interaction appeared to be very important for learners who had limited access to authentic resources and who had limited opportunities (if any) to visit the target country. Previous studies (e.g., Bygate, Skehan, & Swain, 2001; Ellis, 2003, Skenan, 1998) demonstrated that task-based learning was found to be beneficial for learning vocabulary and grammar structures. The participants appeared to be able to develop their language skills in a meaningful manner when they were given the opportunity to interact with others using the target language for a purpose that reflected a real-life purpose. The results imply that meaningful task-based learning should be incorporated into learning programs with the inclusion of interaction with native speakers. Without the inclusion of interaction with the native speakers, the participants have limited experience using their target language for real purposes. Interaction with the native speakers is a highly important part of the SL learners' cultural and linguistic development.

6.2.2 Training for Using Online Tools

When learners are required to use online tools, their perceptions of proficiency and knowledge of the features of the tools can sometimes be defined differently to the way that educators perceive proficiency with using the online tools and their features. The participants' proficiency appeared to differ depending on their

exposure and understanding of the potential use of the online tools. The features of online tools may be used in a similar manner or differently for social purposes when compared with how they are used for learning purposes. The results of the study demonstrated that different participants learnt to use online tools at different rates. Some learners may require more assistance and time to develop their skills than others. These results imply that cognitive load can be too strenuous to benefit learning when learners are required to simultaneously learn new skills in technology and language at a native speed. They also demonstrated that, once learners are able to efficiently use the online tools for learning, the learners are able to spend more time and energy during task work focusing on language learning. The results imply that learning rates differ for learning to master the use of an online tool and that it is important to master the use of an online tool before using the online tool for interactive language learning.

6.2.3 Strategy Training for Learning

Most participants adapted well to the Skype learning space and used the potential strategies that were available to them such as text chat assistance, online links and strategies that took advantage of visual cues from their partners. In Second Life, although an array of strategies was used, only two participants discussed consciously using the virtual learning space itself as part of a repair strategy. It is unknown whether the participants unconsciously used the virtual space for clues as many participants discussed listening to music, reading signs and how they enjoyed learning about the target culture from the virtual learning space. Strategy training may assist learners in consciously utilising the virtual space to its full potential. Comments were also made relating to time pressures and methods for preparation. The participants' meta-cognitive skills and plans for learning in many cases entailed simply reading and practising language prior to task work. With the array of tools, strategies, and learning spaces available to language learners as demonstrated by the continuum of language learning spaces, it was surprising that the participants in general did not have more structured and varied meta-cognitive plans for their learning. The lack of various language learning spaces and strategies implies that the participants may benefit from focused training on planning for their learning using various learning spaces.

6.2.4 Appropriate Entry Level

Effectiveness in using the two facilitation techniques improved when the participants already had a basic grasp of some simple sentence structures and commonly used sentences as opposed to having no knowledge of the target language before beginning task work. Facilitation techniques such as those used in this study may be best suited to learners who have achieved at Level A1 of the CEFR. Having a basic skill level could assist learners in trying to solve comprehension problems using their knowledge of the target language as opposed to reverting to using English to solve issues. Successfully identifying learners' prior knowledge before task work can allow educators to adapt the content of the tasks enabling all learners to engage with the new content as well as revise their previous knowledge.

6.2.5 Virtual Acculturation and Cultural Learning

The results of the study demonstrated that communicating with native speakers from the target culture on a regular basis and developing friendships assisted the participants in gaining authentic cultural learning. As participants had wondered whether the knowledge they were gaining from the virtual world was authentic and whether it would assist them in the real world, they themselves highlighted a potential for the application of using virtual worlds for preparing learners for real life immersion. A learner could potentially become familiar with the new physical location prior to arrival in the target country. The experience of virtually walking the streets may result in a feeling of '*déjà vu*' when arriving in the country as opposed to everything being new and foreign. If the virtual process did assist in the acculturation process and assist in reducing culture shock, then virtual acculturation could potentially benefit not only language learners but also other professionals such as nurses who accept positions in third world countries that are culturally and linguistically different from their homeland. Professionals who are moving to new countries for work purposes may also find virtual acculturation a meaningful positive process whilst learning to communicate in the target language. Virtual acculturation for learning English and living in Australia could be useful for new arrivals who need to develop their English and build their confidence for having conversations in English around various themes such as making a transaction at the post office or visiting the hair dresser. The learner could practise listening to native speakers while role-playing being in a location before actually trying to do so in real

life in a similar manner to the task work in this study. Further investigation is required to establish the full potential of being virtually acculturated prior to, or alongside, real acculturation into the target culture.

The friendships made between the participants are worth noting. These friendships in many circumstances developed through the course of the study and have been reported on as continuing following completion of the study. For example, in January 2013, one CSL learner who participated in the study during 2011 reported that she continues to meet with her partner to practise their language skills using Skype. Although this is not part of the structured data collection, the positive flow on is worth noting.

An unintended outcome was the amount of cultural learning that occurred between partners. Although questions were included in the interview to determine the extent to which participants found their partner to be an authentic cultural resource, the focus and value of communicating with native speakers for cultural learning was much greater than expected. The participants found their partner to be a link to the target country with the CSL participants commenting that their parents or partners (husbands or wives) of Croatian background living in Australia often represented an outdated view of Croatia. The native speakers of Croatian were also useful for validating the traditional food and behaviours that remain constant within the culture for modern Croatians. The ESL learners were interested in learning about life in Australia and did not have as much knowledge about or exposure to Australian culture and the Australian English accent as they do with American or British culture and accent.

Although it was anticipated that the partners would enjoy helping one another, the level of motivation to help one another aside from during scheduled task time was pleasantly surprising. The ESL participants from Croatia were highly impressed with the motivation of the CSL participants. They expressed concern for the difficulties the CSL participants faced in Australia being so far away from Croatia and having limited resources to assist them. Their appreciation of others outside of Croatia taking an interest in Croatia and the Croatian language was also expressed. This combination of appreciation, concern and respect motivated the ESL participants to donate their personal time to assist their partners in learning Croatian. This extra offering of time occurred during treatment periods as well as in between and following treatment periods. The value of conversations with native speakers for

validating learners' personal cultural perceptions of the target culture as well as their personal relationship and identity with regard to the target culture is great.

6.2.6 Modified Combined Facilitation Technique

The comparisons between the results of the pre-tests and the post-tests indicate that both the Second Life and the Skype facilitation techniques were beneficial to the participants for assisting in the development of their listening comprehension skills. The interview data explained the differences in the techniques, their various strengths and weaknesses and which aspects of each technique worked best. In some circumstances, for example, the initial introductory meeting with one's partner and interview discussions indicated that Skype was the preferred online tool for the task. This may have been due to the interaction focusing on partners getting to know one another. There were no necessary resources to accompany the task. The task did not require any interaction with an environment. Skype's affordance of being able to see one's partner is best suited to the task. Being able to see the face of their partners enabled the participants to develop a relationship and a feeling of closeness with their partner. In other tasks such as the shopping task, Second Life was the preferred online tool. In this task, the participants were able to walk around a virtual shopping location and discuss items that they were viewing together. The participants stated that this task felt like a real-life experience especially when one could actually purchase the clothes for his/her avatar and pay for the clothes using Linden dollars (purchased via a real credit card). It appears that the feeling of authenticity the virtual learning space provided added interest for the participants and a sense of real purposes to their learning.

Some tasks, such as the directions task, appeared to provide the participants with different benefits, depending on which online tool and facilitation technique was used. In Second Life, the directions task entailed listening to verbal directions and following the directions by physically moving an avatar. The task resembled the real life task of asking someone for directions to a location and then having to physically follow the directions. The Second Life facilitation technique allowed the participants to receive verbal directions one by one instead of a group of directions as one would receive in real life. In Skype, the directions task entailed looking at a map and following directions one by one to find a location. The task also resembles a real life activity, for example, being a tourist with a tourist map and asking someone for

directions. Both versions of the tasks assisted in the development of various necessary life skills. Learners may benefit from being able to participate in both the Skype and Second Life versions of the directions task as listening skills and vocabulary development required to be able to follow directions in the target language would then be reinforced. The implications from this deeper analysis of the specific affordances of Skype and Second Life related to specific learning aims is that, although both tools are effective and suitable for developing listening comprehension, some tasks are more suitably matched to using Second Life and some to using Skype. Online tools appear to be best selected on a task by task basis whilst not overloading learners with too many new technological skills to learn.

6.2.7 Continuum of Language Learning Spaces

The participants used many different learning spaces throughout the study such as the learning spaces created by Second Life and Skype, the classroom learning space, and their personal learning space at home. Their habits highlighted the importance and potential of using a variety of learning spaces for language development. Discussions also indicated that the participants did not always optimise the learning space to its greatest potential. For example, in their personal space many participants were only reading notes and task requirements. They were motivated learners, but had busy lifestyles and many other commitments such as work and study that they needed to donate time to. Nevertheless, they agreed to participate in the facilitation techniques in their own time during Treatment Periods 2 and 3. Their willingness to try new tasks and learning tools (online and offline) but their simplistic limited use of a variety of learning spaces indicates that learners may benefit from guidance and training in how to organise their time for learning their target language. The development of a planning tool would be beneficial that could be designed to assist learners in finding maximum focused learning time during their busy lifestyles. The tool could assist learners' meta-cognitive planning skills. It could begin with identifying the aim of the learning task to be matched with a variety of tools (online and offline) selected based on their affordances in each learning space and usefulness for achieving each learning aim. An example of planning to effectively use learning spaces could be organising vocabulary lists in a mobile phone calendar application with an alarm programmed to sound while SLs are travelling by train to work to remind them to view and memorise the lists.

6.3 Recommendations

6.3.1 Threshold Level for Participation

The ESL participants were all able to carry out conversations in English having all begun task work at an appropriate level to effectively participate in the task. For two CSL participants the facilitation tasks were too difficult to engage in both speaking and listening in Croatian and they resorted to often speaking in English to assist communication. Further investigation is required to ascertain at which point of one's learning journey conversations with native speakers should be included. It may be advantageous to wait until a language learner has gained enough language to be considered at the linguistic threshold for the task. Absolute beginners may benefit more from a greater focus on cultural exchange in the beginning stages of their development. Appropriate modification approaches need to be created and trialled for low ability learners. It is recommended that language learners are pre-tested before beginning courses and that modification to content through extra support or extension possibilities is provided so that all learners can be provided with the appropriate learning experiences for their ability level.

6.3.2 Training for Using Online Tools

It is recommended that educators determine all necessary skills that are required of the learners to be able to participate in tasks utilising selected online tools and organise training accordingly. It is recommended that all learners are required to participate in basic skills training prior to the first time that they use the selected online tools during coursework. It is suggested that extra optional training or assistance be provided to the learners who require it as learners develop their technological skills at varying rates.

6.3.3 Learner Strategy Training

Further investigation is required to ascertain whether the virtual learning space offers SL learners visual cues that can be used without conscious effort or whether using them can be an effective strategy to maintain comprehension. Strategies that SL learners use in a standard classroom learning space may be different to strategies that can be used in a virtual learning space. Further investigation focusing on the identification and exploration of strategies that can be

used in virtual spaces is required. Once the strategies are identified, the effects of strategy training for learning languages in virtual learning spaces can be investigated to ascertain whether the training assists the learners in selecting online strategies for use and whether SL learners include the virtual learning space as a visual resource to assist in comprehension of the target language. Such investigation would provide a deeper understanding of the affordances of using virtual worlds for developing listening comprehension.

6.3.4 Virtual Acculturation and Cultural Learning

The potential benefits of virtual acculturation for SL learners and professionals prior to or alongside being acculturated in the target culture requires further investigation. It is recommended that the CSL participants, who are interested in participating in ‘in-country placements’ (and where such placements are available) such as the ‘CRO 180 Introductory Residential Unit’ available through the Croatian studies program at Macquarie University, are given the opportunity to virtually acculturate into the target city prior to actually arriving there. The creation of the virtual space to resemble places focused on in Zagreb would be required. The CSL learners’ virtual partners could be students from Zagreb University with whom they will meet once they arrive in Zagreb. The virtual task should include aspects that require learners to visit popular locations replicated in the virtual world, allowing for the potential of being able to recognise locations and gain a sense of familiarity. Focused data collection could begin prior to virtual acculturation and continue with reflections of real placements in the target country. In-depth qualitative case studies may be the most appropriate methodology. Whether virtual acculturation can assist SL learners’ acculturation process prior to arriving in the target country is worthy of further investigation and could be investigated for any language and any target location. Further investigation may also consider whether this process could assist in developing their personal identity in relation to the target culture and location by having made friends with members of the culture. The question of whether virtual interactions that assist in helping the learners to develop intercultural schema and confidence in the beginning stages of their learning can reduce culture shock also requires investigation.

6.3.5 Combined Facilitation Technique

The results of the study imply that both online tools are effective for assisting in the development of listening comprehension skills in the SL learners. Effectiveness for developing listening comprehension appeared to be influenced by the type of affordances the online tool displayed and the learning aims of the task. Based on the needs of the learners and requirements of the tasks, the affordances of Second Life and Skype were evaluated to ascertain which online tool best suited which task. A new version of the facilitation technique was discussed that incorporated using both Second Life and Skype depending on the task. Based on the findings of this study, it is suggested that educators consider the aims of tasks and select online tools based on their affordances for facilitating the achievement of the aims. It is recommended that Second Life be used for SL learning tasks that can utilise an environment that can be found or built in the virtual world, for example, visiting a theatre. It is suggested that Skype be used for tandem tasks that focus on one to one communication and information exchange not based around an environment, for example, introductions. It would be advantageous for educators to develop a repertoire of online tools that their learners are familiar with which could be developed with careful planning over a period of time. For example, in first year subjects, the SL learners could be asked to develop their listening comprehension by listening to radio programs or viewing online news programs. They may also utilise online games where they need to listen as well as respond. Online glossaries that contain sound content could be used. In second year subjects, the SL learners could then participate in a tandem facilitation technique matched with a partner from the target culture. They may continue to use online tools such as dictionaries to support their development. A developmental approach to the introduction of online tools and tasks is recommended to ensure that learners develop a range of skills with working with online tools and that they are not overloaded with learning too many technological skills at one time.

6.3.6 Continuum of Language Learning Spaces

It is recommended that educators consider all learning spaces and their affordances and plan language learning tasks aligning the affordances of each learning space with the needs of the task and learners. Planning for language learning is also recommended for the learners themselves. To assist the SL learners in their

planning, it is recommended that a planning tool that focuses on the development of language skills across a range of learning spaces, as discussed in Section 6.2.7, is developed and trialled. The implementation of meta-strategy training for the language learners to plan their own learning experiences and study time that utilises the proposed planning tool requires further investigation. Investigation into the affordances of various learning spaces, online and computer tools may benefit from including in their methods learner evaluation and reflection as demonstrated in this study and other investigations into online team work using various tools such as Kavanagh, Casperz, Levak and Sergant (2012) where learner reflections provided insights into the development of virtual teams using online tools. The learners may have important insight into which tools are best suited for which language learning spaces for different goals in developing listening comprehension.

6.3.7 Strengths and Limitations of the Study

An identified limitation for the study was the differing universities' semester dates. As the universities were located in three different countries, the study needed to utilise common shared teaching blocks. The limitation was that the duration of the treatment periods was for five to eight weeks as opposed to a twelve or fourteen week teaching block in a typical semester. The participants in Treatment Period 1 needed to wait months until they met their partner again during Treatment Period 2. This time lag between treatment periods may have influenced the data collection and the amount and quality of data provided in response to Question 13 which asked participants to compare their experiences during Treatment Period 1 and Treatment Period 2 as the indepth interviews which contained Question 13 were conducted at the end of Treatment Period 2.

Another limitation of the study was the reliance on virtual spaces created by other people external to the study. As the virtual spaces can go offline or be changed readily, it can be potentially difficult to exactly replicate the study. Nevertheless, the strength of the tasks is that the tasks can be altered and adjusted with the focus of the task remaining the same. Having a shared virtual space owned by the universities involved in the study would have improved this issue and enabled the study to continue with culturally specific information being designed and placed in the virtual locations. It would assist in being able to sustain further task work and relationships between the universities.

An issue that arose during the study was the difficulty with using Internet services provided by the universities involved. A strength of the study which assisted in combating the issues with the Internet which presented during Treatment Period 1 was that the design was flexible enough to be altered slightly to allow the tasks to be completed as homework tasks instead of during class at the universities. When the participants used their own Internet at home they experienced less difficulties although in some areas such as Mostar, Internet issues remained sporadically for some participants.

It became apparent that the lecturers' perceptions of what a beginner, intermediate and advanced language learner can and cannot achieve is not always standard. This issue is accentuated across countries where a common framework for assessment is not used. The pre-test was a strength of the design in that it assisted with this issue as it enabled the researcher the opportunity to assess the participants' knowledge in a standardised manner. The varying ability levels of the participants appeared to be a strength of the study as the less able participants (CSL participants) were able to have Croatian grammar explained sometimes in English during a task, then the participants could continue in Croatian with meaning restored. The listening comprehension tests were based on common standards CEFR and Croatia, in 2013, entered the EU rendering the results of the study relevant to the current educational climate.

6.3.8 Further Studies

In summary, further studies are also needed to explore a variety of strategies available for use in virtual learning spaces for developing listening comprehension. It is recommended that language learner habits and strategy use be investigated to ascertain the strategies and online tools that SL learners are using in their personal time without instruction. Responses from participants highlighted the difficulties of studying and finding time to practice and to meet their partner while also leading busy lives. Results also indicated that participants' perceptions of the affordances of an online tool did not always match the actual affordances of the online tool. A language learning tool designed to assist learners to select online tools based on their affordances should be developed and trialled. The language learning planning tool could aim at assisting learners to utilise the various language learning spaces available to them enabling them to come in contact with their second language more

regularly. This study for the first time places language learning spaces conceptually on a continuum. Further investigation is required to describe and explore the language learning potential of each learning space represented on the continuum as well as using combinations of language learning spaces. To assist language educators in planning for learning using ICTs, the use of the framework for the selection and use of ICTs for facilitating SL learning should be investigated for its effectiveness in assisting in planning for a wide range of language learning tasks as well as listening comprehension. The framework was designed to assist in selecting the appropriate tools for facilitating learning. The framework could be utilised to enable SL educators to measure their learners' gains and the success of facilitation techniques.

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Appendices

Appendix A: Task Design and Evaluation Grid for Intercultural Communicative Tasks in Video-Web Communication or Virtual Worlds

Jauregi, de Graaff, van den Bergh, and Kriz (2011, pp. 1-9) developed a task design and evaluation grid that outlines key questions relating to intercultural communication between natives speakers of a target language and learners of the language. It is structured as questions around themes and includes questions relating to learning in virtual environments. The grid was used to assist in the evaluation of the learning tasks in the facilitation techniques. The format of the grid has been altered to display direct quotations from Jauregi et al. (theme titles and questions) with the inclusion of a section containing related evaluation undertaken in the project.

Table A.1

Task Design and Evaluation Grid for Intercultural Communicative Tasks in Video-Web Communication or Virtual Worlds

The task exposes the learners to rich target language input:

Questions	Evaluation
Does the task provide input that is authentic/unmodified, relevant/challenging, and multimodal?	
Does the task enhance interactional modification or negotiation of meaning?	
Does the task elicit the use of authentic resources both before and during performance?	
Does the task elicit the use of both predefined resources and resources provided by the interlocutors themselves?	
The task elicits meaningful target language use	

Meaningfulness:

Do the learners use the language pragmatically and communicatively?	
Do the learners use the language to engage in activities involving real-world processes of L2 use?	
Do the learners have the choice how to use the language, that is, no linguistic forms are prescribed in advance?	

Use:

Does the task involve some kind of gap (information, reasoning, culture)?	
Does the task have the right balance between language –demanding and content-demanding processing?	
Does the task promote learning by doing (processing and interacting)?	
Does the task promote collaborative learning? <ul style="list-style-type: none"> • complementary roles, information perspectives • two-way information exchange • convergent, goal-specific communication • positive interdependence • shared responsibilities • individual accountability 	

The task required the learners to focus on form:

Does the task create a “semantic space” in order to elicit processing specific L2 forms?	
Does the task promote the detection and use of relevant chunks?	
Does the task elicit feedback on form by the native speaker on language of the learners?	
Does the task provide opportunities to focus on form when learner need arises (negotiation, elaboration, recasts, etc.)?	

The task has a clearly defined communicative outcome:

Does the task have a clearly defined purpose that is relevant for all interlocutors?	
Does the task have a clearly defined communicative end product?	
Does the task provide instructions that meet the needs of all interlocutors?	
Does the task aim at subjective, personal information exchange, related objective, factual resources?	
Is the task both open (not fixed, prescribed) and determined (goal-orientated)?	

The task enhances strategic awareness on language learning and use:

Does the task elicit planning, feedback, and reflection:	
--	--

<ul style="list-style-type: none"> ▪ on language use? ▪ on communication? • on intercultural issues? 	
---	--

The task enhances focus on intercultural linguistic competence:

Does the task require learners to focus on intercultural topics, beliefs, contrasts, reflect upon them and share experiences?	
Does the task elicit focus on contrasting and comparing common everyday, implicit cultural habits and beliefs?	
Does the task create intercultural awareness, but providing topics that contrast students' own beliefs and habits with that of their interlocutors?	
Does the task elicit awareness and reflection not only on target culture, but on own cultural habits and beliefs as well?	
Does the task enhance attitudes of curiosity and openness, readiness to suspend disbelief about other cultures, and belief about one's own?	
Does the task enhance knowledge of social groups and their products and practices in one's own and one's interlocutor's country, and of the general processes of societal and individual interaction?	
Does the task enhance skills of interpreting and relating to interpret a document or event from another culture, to explain it, and relate it to documents from one's own?	
Does the task enhance skills of discovery and interaction to acquire new knowledge of a cultural and cultural practices and the ability to operate knowledge, attitudes, and skills under the constraints of real-time communication and interaction?	
Does the task enhance critical cultural awareness to evaluate critically and on the basis of explicit criteria perspectives, practices, and products in one's own and other cultures and countries?	

The task takes the communicative and intercultural competence level of all interlocutors into account:

<p>Is the task aligned to the proficiency level of oral interaction and intercultural awareness with respect to the following:</p> <ul style="list-style-type: none"> • task goal? • task topic? • task procedure? 	
---	--

General:

<p>Are clear stages in task sequencing provided?</p> <ul style="list-style-type: none"> • Introduction • Comparison/contrasting • Construction/conversion 	
--	--

<ul style="list-style-type: none"> • Production/publication • Reflection 	
--	--

The task makes effective use of the challenges and affordances of virtual worlds:

Is the virtual context sufficiently culture-specific/-focusing/-contrasting?	
Is the virtual context sufficiently relevant and attractive for the task goal?	
Is the virtual context sufficiently prototypical, without being a caricature?	
<p>Is the virtual context used in a socially, cognitively, affectively, and spatially effective and challenging way, eg. By:</p> <ul style="list-style-type: none"> • learning by exploring • learning by collaborating • learning by being (development of avatar character) • learning by building/constructing • learning by championing (focusing of strengths and successes) • learning by expressing 	
Does the virtual context provide a safe environment (e.g. no other listeners/ interlocutors are present)?	
Is the number of interlocutors relevant for the communicative goals, topic, and procedure?	
Is sufficient familiarization provided with environment and technical aspects of virtual communication?	
Does the task trigger oral communication, that is, is intensive oral communication needed for successful task completion?	

Appendix B: Checklist of Listening Activities and Related Content A1-B1

This checklist of listening activities and related content/topics has been taken from information provided in key documents relating to the CEFR levels, these being, EAQUALS can do SIP: EAQUALS/ALTE portfolio descriptor revision – general: EAQUALS bank as checklists (2008); and the Common European Framework of Reference for Languages: learning, teaching, assessment (2001). The style of presentation has been altered and only levels CEFR A1 – CEFR B1 have been outlined on this document due to project relevance. The checklist was designed so that it can be used for student self-assessment, to guide teacher judgements, for assessment tracking purposes and to guide test construction.

Table B.1

Checklist of Listening Activities and Related Content/Topics CEFR Levels A1+; A2; A2+; B1

Type of Listening Activity	CEFR A1 Topics understood	CEFR A1+ Topics understood	CEFR A2 Topics understood	CEFR A2+ Topics understood	CEFR B1 Topics understood
General listening content	Simple words and phrases, e.g., please, thank you, excuse me, sorry.	Simple everyday topics spoken slowly & clearly	Simple information & questions about family, people, homes, work & hobbies	Comprehend sufficient amount to meet immediate needs when spoken slowly & clearly	Main points of clear standard speech on familiar, everyday subjects, provided there is an opportunity to get repetition or clarification sometimes
	Days of the week	Descriptions of objects and possessions			
	Months of the year	Time: next week, last Monday			
	Times & dates	Family life			
	Numbers & prices	Student life			
Listening to a person while participating in conversation	Basic greetings and leave taking e.g. Hello, goodbye, Good morning, Good evening	Slowly and clearly spoken simple questions addressed to me	What people say to me in simple, everyday conversation, if they speak clearly & slowly and give me	When people talk to me about everyday things, as long as I can ask for help	Common everyday conversations with assistance clarifying particular aspects

Type of Listening Activity	CEFR A1 Topics understood	CEFR A1+ Topics understood	CEFR A2 Topics understood	CEFR A2+ Topics understood	CEFR B1 Topics understood
			help		
	Slowly & clearly spoken simple personal questions, "What is your name/ age/ address?"	In a shop, understand the price of an article with help from the salesperson.	Feelings in different situations, "Are you hungry?" or "Are you ok?" Happy, sad, tired, thirsty		Recognise the words for feelings & attitudes like surprise, happiness, sadness, interest & disinterest
		Follow directions which are simple from one direct location to another by public transport or walking	Questions about home, country, work, free time, likes, & dislikes		
Listening to a person in participating in conversation (cont.)			Simple questions about a past event. Eg. the time & place of a party, who was at the party & what happened there, party invitations & refusals		
			Requests to order food		
Listening in to a group discussion	Simple short sentences & words which are spoken clearly & at a slow pace	People talking about themselves & their families, using simple slow speech	Short conversations about family, hobbies & daily life, provided that people speak slowly & clearly	Identify changes in the topic of discussion around me which is conducted slowly & clearly	Main points of discussion on familiar topics in everyday situations when spoken clearly with assistance with some details
Listening as part of an audience				Short, simple stories spoken clearly & slowly	Follow clearly spoken, straightforward short talks on familiar topics
Listening to programs on the			I can follow changes of topic in TV news	Follow main points of TV news, when spoken	Main points in TV programmes when

Type of Listening Activity	CEFR A1 Topics understood	CEFR A1+ Topics understood	CEFR A2 Topics understood	CEFR A2+ Topics understood	CEFR B1 Topics understood
television and film with visual components.			reports & understand the main information.	slowly & clearly on familiar subjects and with assistance from pictures	topics are familiar and spoken relatively slowly & clearly
Listening to announcement	Short clear simple messages at airports, such as, flight number	At the railway station: figures & times in a clear announcement	Short, clear & simple messages at the airport, railway station etc. Eg, "The train to London leaves at 4:30"	Main point in short, clear, simple messages, announcements & instructions (e.g. airport gate changes)	Simple technical information, such as operating instructions for familiar types of equipment
		Comprehend announcements relating to public transport: times, destinations, stop overs	Main information in announcements if people talk very clearly. E.g., weather reports, etc		

Appendix C: Participant Pair Groupings

Table C.1

Participant Pair Groupings

Treatment Period	Participant number	Group	Target language	Partner's participant number	Group	Target Language
1	1	1 Second Life	English	11	2 Second Life	Croatian
1	2	1	English	12	2	Croatian
1	3	1	English	13	2	Croatian
1	4	1	English	14	2	Croatian
1	5	1	English	15	2	Croatian
1	6	1	English	16	2	Croatian
1	7	1	English	17	2	Croatian
1	8	1	English	18	2	Croatian
2	1	3 Skype	English	11	4 Skype	Croatian
2	4	3	English	14	4	Croatian
2	5	3	English	15	4	Croatian
2	6	3	English	16	4	Croatian
2	7	3	English	7	4	Croatian
2	21	3	English	13	4	Croatian
3	22	5 Second Life	English	31	6 Second Life	Croatian
3	23	5	English	32	6	Croatian
3	24	5	English	33	6	Croatian
3	25	7 Skype	English	34	8 Skype	Croatian
3	26	7	English	35	8	Croatian
3	27	7	English	36	8	Croatian
3	28	7	English	37	8	Croatian
3	29	7	English	38	8	Croatian
3	30	7	English	39	8	Croatian

Appendix D: An Introduction to Second Life Participant's Manual

An Introduction to Second Life: Participant's Manual



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This study forms part of the PhD research study titled “Using Second Life and Skype for Facilitating the Development of Listening Comprehension in Second Language Learners” If you have any questions or would like further information, please email Natasha Levak.

This manual covers the following aspects of Second Life: Making a Second Life Account; Moving and Teleporting; Walking; Searching for different locations; Asking a friend to teleport to your location.

Making a Second Life Account

Second Life Basic Accounts are free. You will need to do two things to use Second Life: 1) make an account; and 2) download and install the Second Life viewer. To make an account, go to <http://secondlife.com>

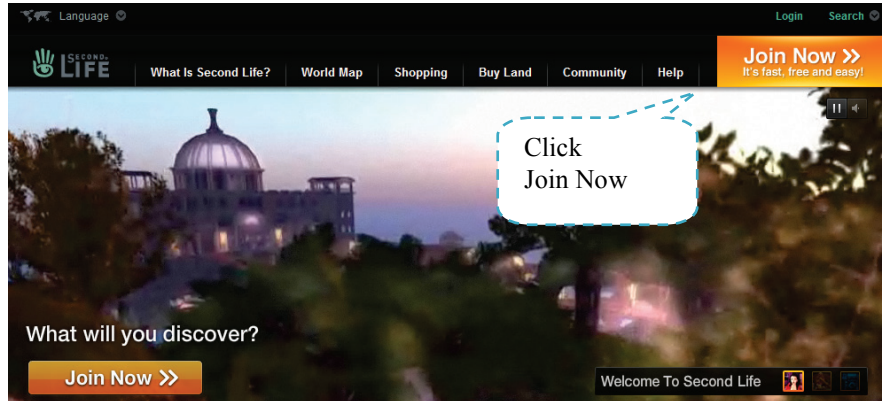


Figure C.1. How to join Second Life

The next page that will appear is where you create your account. Begin by selecting an avatar. An avatar is the 'character' you will use in Second Life. You can change the appearance of your avatar later.

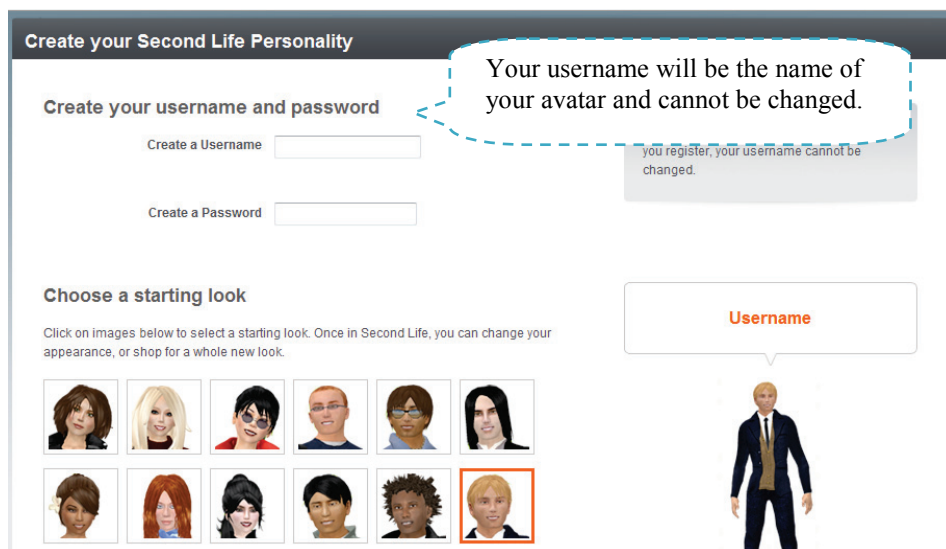


Figure C.2. Creating your avatar

When creating any online persona, it is advised not to use your exact date of birth, perhaps change the date and month but keep the year. Your date of birth cannot be seen by anyone. It is used by Linden Labs to verify that you are over 18 years old.

Just a Few More Details ...


E-mail Address

I was born

Security Question

Security Answer

Security Check



Enter the two words above:

Figure C.3. Adding your details

After you have completed all required steps. You will then be directed to your email address to activate your account. Following this you will be asked to download and install the viewer as Second Life does not use your normal internet browser, such as, Internet Explorer or Google Chrome. This is easy to do. Select whether you use Windows or a Mac and then just follow the prompts. You will be asked to ‘run’ or ‘save’ the viewer. You will first need to save it. Follow all the prompts to install. A desktop icon will appear which you can use from now on to enter Second Life. If you have any difficulties, please contact natasha.levak@hotmail.com for assistance. You will also need to email Natasha your Avatar’s name to participate in the tasks.

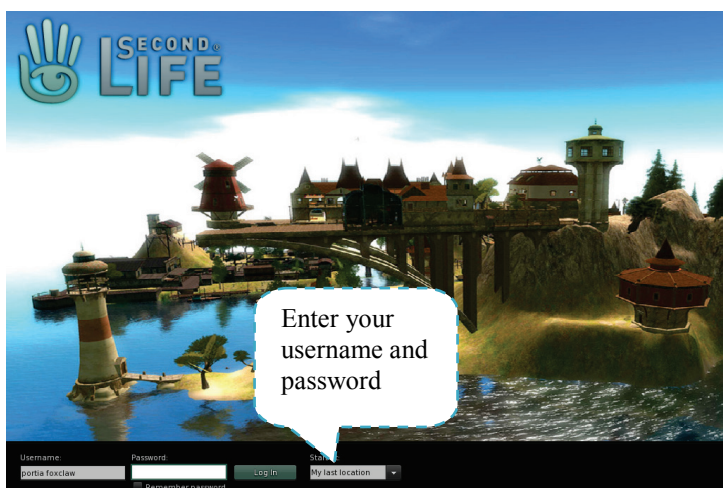


Figure C.4. Logging on to Second Life

The first time you enter Second Life you will arrive on an orientation island.

This is a place designed to help you learn about how to use Second Life. To make it easier, you will find in the remainder of the manual the main functions you need for the activity. They are easy to use.

Moving and Teleporting

You can walk, run and fly in Second Life. The activities in the facilitation techniques only require you to walk, talk and teleport to different locations.

‘Teleporting’ is the term given to directly sending your avatar from one location to another in Second Life.



Figure C.5. How to move in Second Life

Searching for Different Locations

To find different locations such as Australia in Second Life, go to search and click locations. In the example below the University of Western Australia (UWA) was the search term. This is an interesting location with interesting art displays created by students at UWA

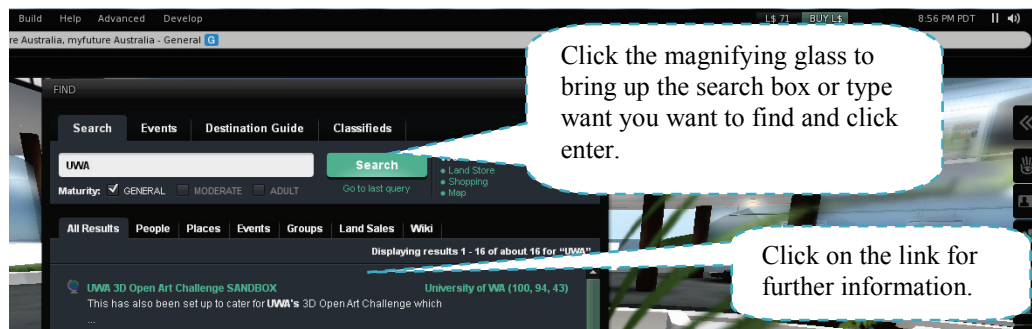


Figure C.6. Searching for locations

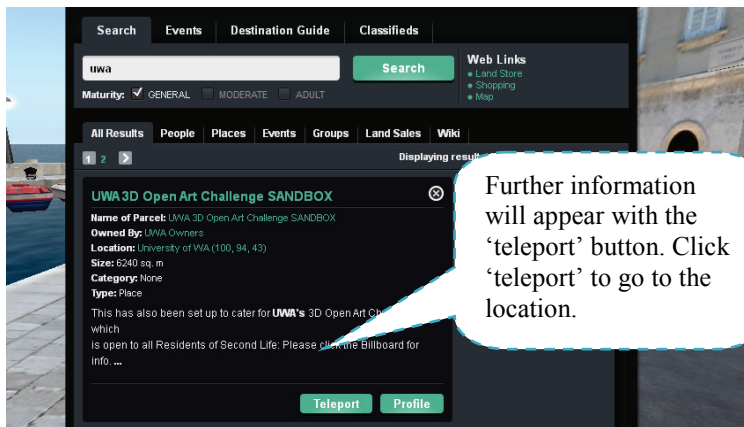


Figure C.7. Teleporting to locations

Asking a friend to teleport to your location

When you and your partner begin your language learning sessions in Second Life, you will need to be able to find one another. Teleporting is a way to ask someone to come to your location.



Figure C.8. Finding a friend to send a teleport request

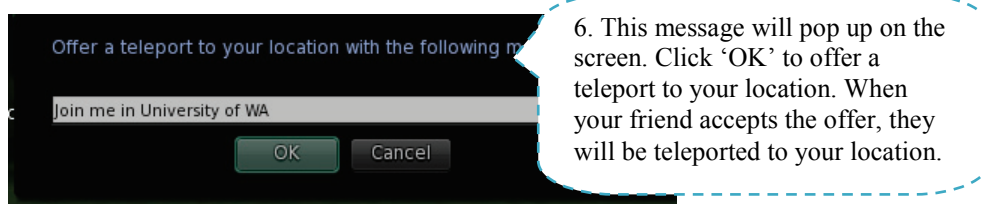


Figure C.9. Making a teleport offer

Make an Offer of Friendship

Either you or your partner will need to offer the other person 'friendship' so that you both can see when one another is online. This assists in meeting up each week and offering each other 'teleports'. Once your lecturer or the researcher provides you with your partner's avatar's name, log on to Second Life and go to the 'search' function.

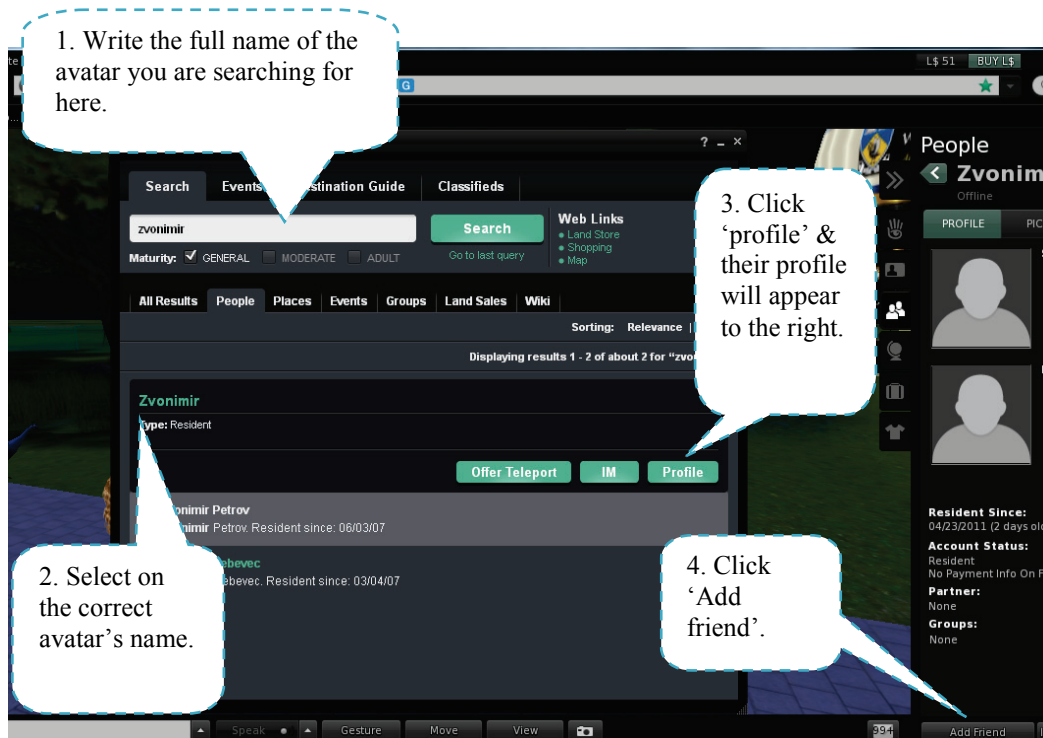


Figure C.10. Finding a resident to offer friendship

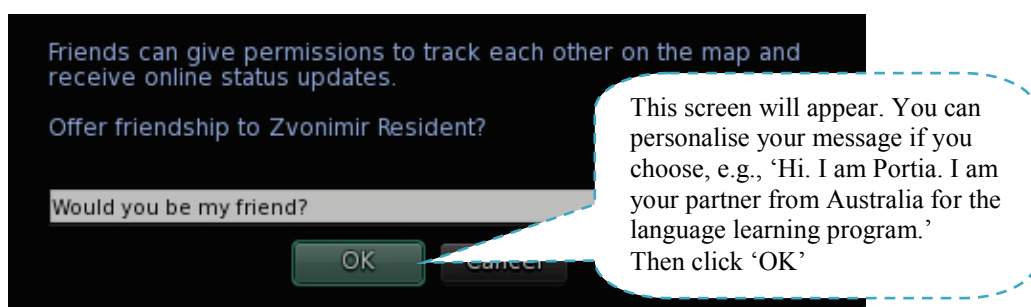


Figure C.11. Making an offer of friendship

When your partner accepts your offer of friendship, you will be able to see when they are online.

Communicating

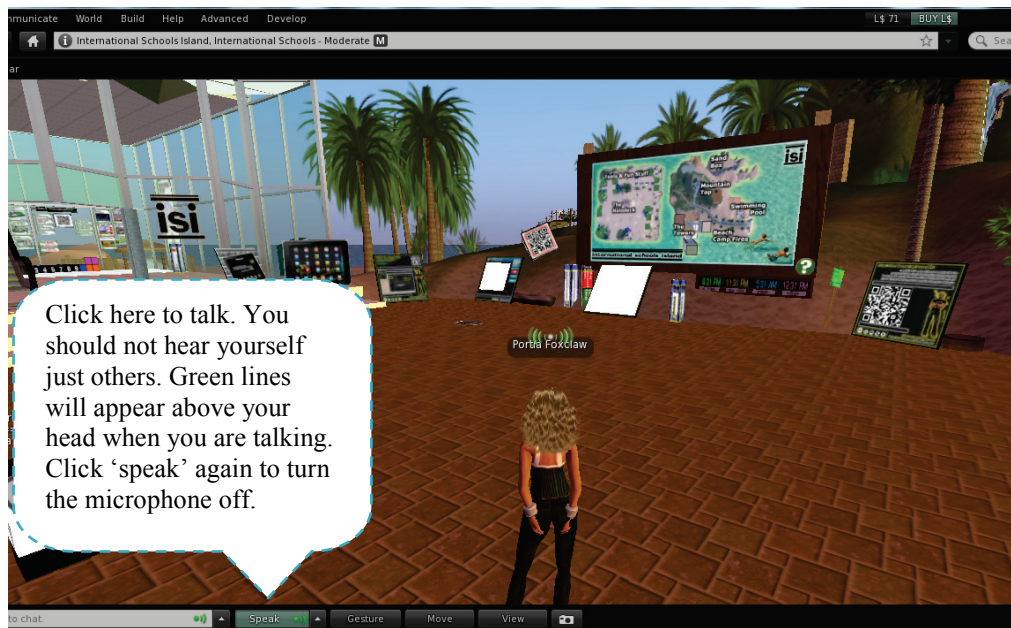


Figure C.12. Talking in Second Life

Check your microphone on your computer works and is switched on before entering Second Life. You may like to use a headset if you have one. You may need to check that you have voice chat activated in your 'Preferences' and media streaming off.

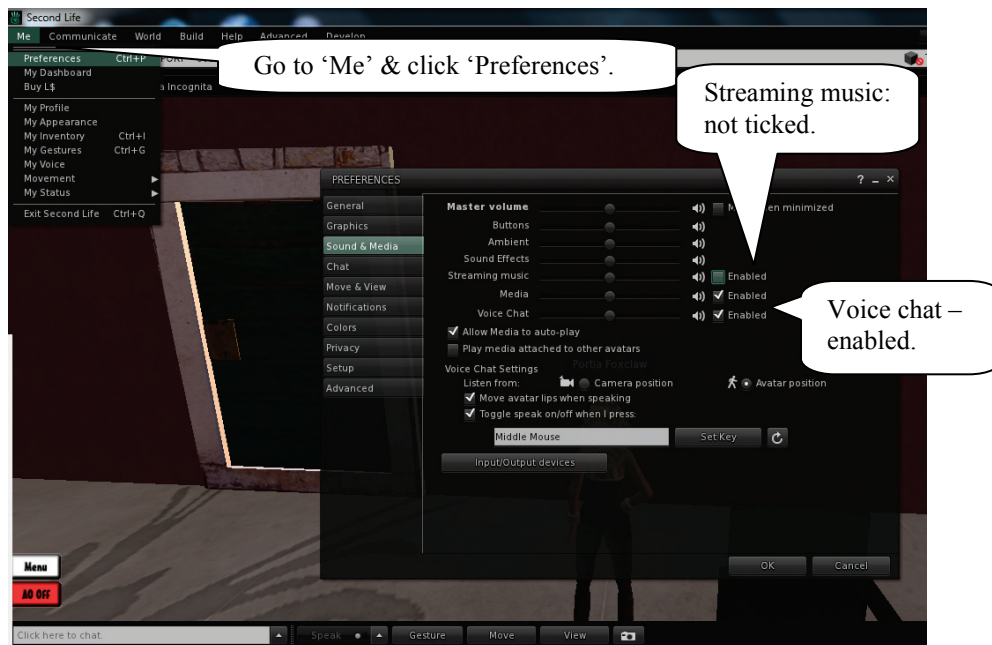


Figure C.13. Enabling voice chat

Clearing Your Cache

When you teleport around Second Life often, your Cache becomes large and can slow your system down. This can interfere with your movement and other

functions. For this reason, it is recommended that you clear your cache regularly.

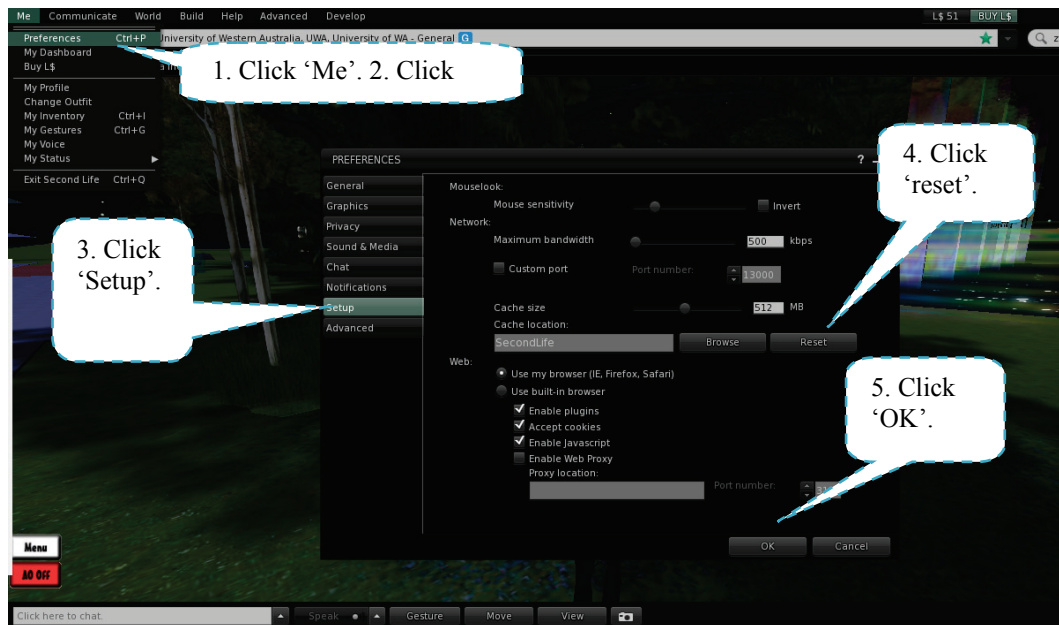


Figure C.14. Clearing your cache

Troubleshooting

If you are experiencing any difficulties with the activities outlined in this manual then either contact Natasha Levak at natasha.levak@hotmail.com or search through the informative forums at <http://www.secondlife.com>

Appendix E. Skype Participant's Manual: Beginners Level 2

Developing Listening Comprehension Activities in Skype Participant's Manual Croatian and English: Beginners Level 2

Topics covered include: 1) Introductions; 2) Going to the doctor; 3) Last weekend; 4) Going to the theatre; 5) Leisure time; 6) Sport; 7) Travel; and 8) Christmas traditions

Task One: Introductions

Listed in the following paragraph are the questions the partner in Croatia will ask. He/she will ask one question from each list. For example, for Question 1 the Croatian partner may ask “Kako se zoveš?” He/she will not ask all versions of the same question. Learn the questions and possible answers. Your partner may ask further questions regarding your answer, if you do not understand you might like to answer ‘Ne razumijem.’ (I don’t understand) or ‘Molim Vas, ponovite još jedanput?’ (Could you please repeat it once more?). If you cannot answer a question in Croatian but understand the question, you may like to try to look up a verb or noun in the dictionary to get your point across. Don’t worry, the first week is a trial run and a get to know you session. The meetings are designed to help you learn. You do not need to be perfect from the start. The first half of your time together is designated to practising Croatian. The second half of your time will be used to practise English. The partner in Croatia will ask the participant in Australia the questions below in Croatian. Once finished, the partner in Australia will ask the same questions in English to the partner located in Croatia.

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Tko ste (Vi)? (Who are you?) or Kako se zovete? (What are you called? [as in the person’s name])
- 2) Što ste po zanimanju? Što radite? (What do you do? [as in for work])
- 3) Kako ste? (How are you?)
- 4) Odakle ste (Vi)? (Where are you from?)
- 5) Gdje živite? (Where do you live?)
- 6) Imate li brata ili sestru? (Do you have a brother or a sister?)
- 7) Što radite u slobodno vrijeme? (What do you do in your spare time?)

8) Bavite li se sportom? (Do you play a sport?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) What is your name?
- 2) What is your profession? What do you do?
- 3) How are you?
- 4) Where are you from?
- 5) Where do you live?
- 6) Do you have a brother or sister?
- 7) What do you do in your free time?
- 8) Do you play a sport?

Task 2. Going to the Doctors (Topic Matches Cjelina 15 of Dobro došli 1. Croatian Questions. Taken from the text Dobro došli 1, p. 116)

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Jeste li bili bolesni? (Have you been sick?)
- 2) Jeste li ikad išli liječniku? (Did you ever go to the doctor?)
- 3) Može li se prehlada spriječiti? (Can you prevent catching a cold?)
- 4) Jeste li otporni na viroze?(Do you have a strong immune system to resist viroses?)
- 5) Kako se stječe otpornost? (How do you become resistant to sickness?)
- 6) Što je važno za zdrav život? (What is important for living a healthy live?)
- 7) Bavite li se sportom? (Do you occupy yourself with sport?)
- 8) Jeste li ikad bili u bolnici? (Have you ever been in hospital?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) Have you been in the hospital? Example response: Yes, I have been in hospital before. When I was five years old I broke my arm.
- 2) Do you sometimes go to the doctor? Example response: Yes, I do sometimes visit the doctor just for a check up. I usually have my blood pressure checked.
- 3) Can you prevent catching a cold? Example response: Yes, you can try to keep your immune system strong by eating healthy food and particular foods that help the body resist colds such as garlic.
- 4) Do you have a strong immune system? Example response: No, I seem to catch

colds often.

- 5) How do you become resistant to sickness?
- 6) What is important for a healthy life?
- 7) Do you play sport in your spare time?
- 8) Have you been in hospital? Example response: Yes/No. Explain when and why.

Task 3. Last weekend

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Što ste radili prošlog vikenda? (What did you do last weekend?) Add questions if you would like more information from your partner.
- 2) Idete li vikendom van s prijateljima? (Do you go with friends out on the weekends?)
- 3) Što radite preko tjedna? (What did you do during the week?)
- 4) Imate li dosta slobodnog vremena preko tjedna? (Do you have much leisure time during the week?)
- 5) Idete li van često s prijateljima preko tjedna? (Do you go out with friends often during the week?)
- 6) Koliko često idete na kavu ili u restoran? (How often would you go to a coffee shop or restaurant?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) What did you do last weekend? (Add questions if you would like more information from your partner)
- 2) Do you usually socialise over the weekend?
- 3) What did you do during the week?
- 4) Do you have much leisure time over the week?
- 5) Do you socialise much during the week? What do you do (e.g. go for coffee/dinner/movies)?
- 6) How often would you go to a coffee shop or restaurant?

Task 4. Going to the Theatre (Work is aligned with Cjelina 18. Dobro došli 1.)

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Koju vrstu glazbe slušaš? (What type of music do you like?)

- 2) Voliš li ići na koncert? (Do you like going to concerts?)
- 3) Koji je bio zadnji koncert na koji si išao? Koji dio ti se najviše svidao? (What was the last concert that you went to? Which was your favourite part?)
- 4) Što si obukao za koncert? (What did you wear to the concert?)
- 5) Koliko dugo je trajao? (How long did it last?)
- 6) Jesi li tamo mogao kupiti hranu i piće? Ako da, koje vrste? (Were you able to purchase food and drink there? If so, which type?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) What type of music do you like?
- 2) Do you like going to concerts?
- 3) What was the last concert that you went to? Which was your favourite part?
- 4) What did you wear to the concert?
- 5) How long did the concert last?
- 6) Were you able to purchase food and drink there? If so, what type?

5) Leisure time (Topic matches Cjelina 16. Dobro došli 1)

This week you will need to prepare some resources for your discussion. You will need to find your city or suburb on Google maps and save the link. You will need to show a directions map from your suburb to the city centre. If you have any photos or picture links of your city or suburb that you would like to share with your partner, organise these prior to meeting your partner online.

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) U kojem gradu ti živiš? (In which city do you live?) Send your partner a Google map link to your city or suburb – exact address in not needed.
- 2) Stanuješ li u stanu ili u kući? (Do you live in an apartment or a house?)
- 3) Koliko je daleko od tvoje kuće / tvoga stana do grada? (How far is it from your apartment/house to the city?) Send your partner a Google map directions link from your suburb to the city – exact address in not needed.
- 4) Koji je najljepši dio Sydneya? I zašto? (Which is the most beautiful part of Sydney? Why?)
- 5) Što voliš raditi kada si u Sydneyu? (What do you like to do in Sydney?)
- 6) Kakvo je vrijeme preko zime? (How is the weather through winter?)
- 7) Kakvo je vrijeme preko ljeta? (How is the weather through summer?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) Where do you live? (Send your partner a Google map link to your city or suburb – exact address in not needed.)
- 2) Do you live in an apartment or a house?
- 3) How far is it from your home to the city centre? Send your partner a Google map directions link from your suburb to the city – exact address in not needed.
- 4) Which is the most beautiful part of _____? And why?
- 5) What do you like doing in _____?
- 6) What is the weather like during winter?
- 7) What is the weather like during summer?

Task 6: Sport

If you are living in Croatia, go to <http://www.hrsport.net/> and select a sports report to share with your partner. If you are living in Australia, go to <http://www.abc.net.au/news/sport/> to find a sport report to discuss with your partner. Email your partner the title of the article (and link) a week before the task to allow them time to read the article and prepare. Begin this week's session by discussing the sports article and then ask your partner the question below.

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Koji ti je najdraži sport? Zašto? (What is your favourite sport to play? Why?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) What is your favourite sport to play? Why?

Task 7: Travel

For this task organize links of your favourite travel destinations to share with your partner. You can include holiday pictures to show on a Facebook page set you for your group or another online resource of your choice.

These questions are for the partner located in Croatia to ask the partner in Australia:

- 1) Voliš li putovati? (Do you like to travel?)
- 2) Gdje si putovao zadni put? (Where did you travel to last time [on your last journey]?)
- 3) Jesi li išao tamo za provod ili poslovno? (Did you go there for leisure or work

purposes?)

4) Jesi li bio u nekoj drugoj zemlji? U kojoj? (Have you ever been to a different country? In which one?)

5) Što si tamo radio? (What did you do there?) Please note that partners can elaborate and ask more questions regarding holiday trips.

These questions are for the partner located in Australia to ask the partner in Croatia:

1) Do you like to travel?

2) Where was the last location you travelled to?

3) Did you go there for leisure or work purposes?

4) Have you ever been to a different country and if so, where?

5) What did you do there? Please note that partners can elaborate and ask more questions regarding holiday trips.

Task 8. Christmas Traditions (This task matches Cjelina 19. Dobro došli 1)

These questions are for the partner located in Croatia to ask the partner in Australia:

1) Kakva je klima u Australiji u božićno vrijeme? (What is the weather like in Australia at Christmas time?)

2) Kojim aktivnostima se ljudi bave za vrijeme božićnih blagdana? (What type of activities do people usually partake in during the Christmas holiday period?)

3) Što obično radiš na Badnjak i Božić? (What do you usually do on Christmas Eve and Christmas Day?)

4) Koji su glavni australski božićni običaji? (What are the main Australian traditions for Christmas?)

5) Kome kupuješ božićne darove? (Who do you buy presents for?)

6) Ima li u trgovinama nekih popusta u to vrijeme? (Do the shops have any sales on during this period?)

7) Koji tip božićnih poklona najčešće dobivaš? (What type of presents do you usually receive for Christmas?)

8) Šalješ li ikome božićne čestitke? (Do you send cards to others?)

9) Primaš li puno božićnih čestitaka? (Do you receive many cards?)

10) Ima li božićnih običaja u kojima sudjeluju samo djeca? (Are there traditions that the children participate in especially for them?)

These questions are for the partner located in Australia to ask the partner in Croatia:

- 1) What is the weather like in Croatia at Christmas time?
- 2) What type of activities do people usually partake in during the Christmas holiday period?
- 3) What do you do on Christmas Eve and Christmas Day?
- 4) What are the main Croatian traditions for Christmas?
- 5) Who do you buy presents for?
- 6) Do the shops have any sales on during this period?
- 7) What type of presents do you usually receive for Christmas?
- 8) Do you send cards to others?
- 9) Do you receive many cards?
- 10) Are there any traditions that the children participate in especially for them?

Appendix F. Croatian Pre-test of Listening Comprehension Level 1

Test details: Language - Croatian; Skill - Listening; Target Level - A1+ /A2.

The test contains one warm up question at level A1.

Topics/Activities Covered A1+: shopping, price, family, greetings, profession, travel and time. sport, colours

Topics/Activities Covered A2: weather report; on the weekend; hobbies; feelings: hungry; ordering food and drink; invitation to a party; time and location of a party; who was there; and what happened.

Question types: multiple choice and written (simple one word or sentence response)

Warm Up Questions (A1)

0) Text:

Natasha: Dobar dan! (Good day!)

Zvonko: Dobar dan! Ja sam Zvonko. A Vi? (Good day! I am Zvonko. And you ?)

Natasha: Drago mi je. Ja sam Natasha. (Please to meet you. I am Natasha.)

Zvonko: Drago mi je. Kako ste? (Pleased to meet you. How are you?)

Natasha: Dobro, hvala. A Vi? (Good thank you. And you?)

Zvonko: Odlično sam. (I am great.)

Natasha: Koliko godina imate? (How old are you?)

Zvonko: Imam dvadeset šest godina. (I am twenty-six years old.)

Question 0: Kako se Natasha osjeća? (How does Natasha feel?)

- a) Natasha se osjeća sretno. (Natasha feels lucky.)
- b) Natasha se osjeća dobro. (Natasha feels good.)
- c) Natasha se osjeća loše. (Natasha feels bad.)
- d) Natasha se osjeća odlično. (Natasha feels great.)

Questions Relating to Level A1+

Text 1

Vocabulary	Grammar	Activity	Environment
Words for size, shape and colour, price		Purchasing a hat	Clothes shop

Službenik: Dobar dan! (Good day!)

Kupac: Dobar dan! (Good day!)

Službenik: Izvolite? (How can I help you?)

Kupac: Tražim novi šešir. (I am looking for a new hat.)

Službenik: Dobro. Imamo šešire. Koju vrstu više volite? (Good. We have hats. Which type of hat do you prefer?)

Kupac: Tražim veliki i duboki šešir, imate li takvih? (I am looking for a big and wide hat, do you have that type?)

Službenik: Naravno, imamo. (Of course we have)

Kupac: Odlično! (Great!)

Službenik: Ovo je naša najnovija kolekcija. Ovo je lijepi plavi šešir. Želite li ga probati?
(This is our newest collection. This is a beautiful blue hat. Do you wish to try it?)

Kupac: Da, molim. (Yes. Please.)

Službenik: Evo, zeleni šešir, žuti šešir, imamo mnogo boja. Možete probati sve.
(Here, a green hat, yellow hat, we have many colours. You can try all.)

Kupac: Žuti šešir je lijep, ali više volim plavi šešir. Koliko košta? (The yellow hat is beautiful, but I prefer the blue hat. How much is it?)

Službenik: Pedeset kuna. (Fifty kunas.)

Kupac: Uzet ću ga. Izvolite, pedeset kuna. (I'll take it. Here, please take fifty dollars.)

Službenik: Puno hvala. (Thanks very much.)

Question 1: Koji se šešir Vladimiru više sviđa? (Which hat does Vladimir prefer?)

- a) Vladimiru se više sviđa bijeli šešir. (Vladimir prefers the white hat.)
- b) Vladimiru se više sviđa crveni šešir. (Vladimir prefers the red hat.)
- c) Vladimiru se više sviđa plavi šešir. (Vladimir prefers the blue hat.)
- d) Vladimiru se više sviđa žuti šešir. (Vladimir prefers the yellow hat.)

Question 2: Koliko košta plavi šešir? (How much does the blue hat cost?)

- a) 40 kuna (40 kunas)

- b) 50 kuna (50 kunas)
- c) 20 kuna (20 kunas)
- d) 70 kuna (70 kunas)

Text 2

Vocabulary	Grammar	Activity	Environment
Family members, where I live, items for purchase	Genitive – Odakle ste Vi?	Meeting a new person Purchasing items	At information services

- Mirko: Dobar dan! (Good day!)
- Službenica: Dobar dan! Kako Vam mogu pomoći? (Good day! How can I help you?)
- Mirko: Trebam kupiti cipele. Tražim trgovinu. (I need to buy shoes. I am looking for a shop.)
- Službenica: Importantne je veliki trgovački centar. Tamo možete kupiti cipele. Pokazat ću Vam na mapi grada. (Importane is a large shopping mall. You can buy shoes there, I will show you on the town map.)
- Mirko: Hvala. (Thank you.)
- Službenica: Oprostite, Vi ste stranac? (Excuse me, are you a foreigner?)
- Mirko: Da, jesam. Ja sam Mirko. Ja sam iz Amerike. (Yes, I am. I am Mirko. I am from Amerika.)
- Službenica: Oh, Vi ste Amerikanac. Drago mi je. Ja sam Ana. (Oh, you are an American. Pleased to meet you. I am Ana.)
- Mirko: Drago mi je. (Pleased to meet you.)
- Službenica: Govorite hrvatski vrlo dobro. (You speak Croatian really well.)
- Mirko: Hvala. (Thank you.)
- Službenica: Jesu li Vaši roditelji iz Hrvatske? (Are your parents from Croatia?)
- Mirko: Hvala na pitanju, jesu. Imam jednog brata. Moj brat živi u Zagrebu. Hvala na pomoći. (Thanks for asking, they are. I have one brother. My brother lives in Zagreb. Thanks for the help.)
- Službenica: Nema na čemu. Želim Vam ugodan dan! (No worries. I wish you a comfortable day!)
- Mirko: Hvala Vam! Doviđenja. (Thank you. Goodbye.)

Question 3: Odakle je Mirko? (Where is Mirko from?)

- a) Mirko je iz Australije. (Mirko is from Australia.)
- b) Mirko je iz Amerike. (Mirko is from America.)
- c) Mirko je iz Zagreba. (Mirko is from Zagreb.)
- d) Mirko je iz Hrvatske. (Mirko is from Croatia.)

Question 4: Što Mirko želi kupiti? (What does Mirko wish to buy?)

- a) Mirko želi kupiti cipele. (Mirko wishes to buy shoes.)
- b) Mirko želi kupiti trgovinu. (Marko wishes to buy a shop.)
- c) Mirko želi kupiti darove. (Marko wishes to buy a present.)
- d) Mirko želi kupiti knjige. (Mirko wishes to buy books.)

Text 3a

Vocabulary	Grammar	Activity	Environment
Related to travelling	Locative case	Listening to direction – location	At a train station

Speaker: Vlak iz Zagreba u Osijek stiže na peron sedam za pet minuta. (The train from Zagreb to Osijek arrives on platform seven in five minutes.)

Question 5: Na koji će peron stići vlak? (On which platform will the train arrive?)

- a) Na peron 7 (On platform 7)
- b) Na peron 5 (On platform 5)
- c) Na peron 8 (On platform 8)
- d) Na peron 11 (On platform 11)

Text 3b

Vocabulary	Grammar	Activity	Environment
Related to travelling Prices	Locative case Accusative case	Listening to direction – location	At a train station

Službenik: Dobar dan. Kamo Vi idete? (Good day. Where are you going?)

Ana: Dobar dan. Idem u Kaštel stari. (Good day. I am going to *Kaštel stari*.)

Službenik: Povratna karta košta dvadeset kuna. Karta u jednom smjeru košta jedanaest kuna. (A return ticket costs twenty dollars. A one way ticket costs eleven kunas.)

Ana: Dobro. Dajte mi, molim Vas, jednu kartu u jednom smjeru. (Good. Give me please, a one way ticket.)

Službenik: Izvolite! Želim Vam ugodan put. (Here you go. I wish you a

comfortable journey.)

Ana: Hvala. Doviđenja. (Thank you. Goodbye.)

Službenik: Doviđenja. (Goodbye.)

Question 6: Kamo ide Ana? (Where is Ana going?)

a) Ana ide u povratnu kartu. (Ana is going to a return ticket.)

b) Ana ide u Kaštel stari. (Ana is going to Kaštel stari.)

c) Ana ide u tjedan dana. (Ana is going to one day.)

d) Ana ide u dvadeset dana. (Ana is going to ten days).

Text 4

Vocabulary	Grammar	Activity	Environment
From X to Y, words related to direction: left, right, bank, shop,	Genitive – relational position & accusative.	Listening to directions	On the street in the city

Damir: Oprostite, gospodine, možete li mi reći gdje je banka? (Excuse me, sir, can you tell me where the bank is?)

Mirjana: Koju banku tražite? (Which bank are you looking for?)

Damir: Centar banku. Možete li mi reći kako mogu doći do banke? (*Centar* bank. Can you tell me how I can get to the bank?)

Marjana: Naravno, mogu. Idite do kraja ulice i skrenite lijevo, onda idite ravno do druge ulice i skrenite desno. Centar banka je u toj ulici. (Of course, I can. Go to the end of the street and turn left, then go straight until the second street and turn right. *Centar* bank is on that street.)

Damir: Puno Vam hvala. Doviđenja. (Many thanks to you. Good bye.)

Marjana: Doviđenja. (Good bye.)

Question 7: Koju banku traži Damir? (Which bank is Damir looking for?)

a) Credo banku

b) Hrvatsku banku

c) Imex banku

d) Centar banku

Question 8: U kojem smjeru Damir treba prvo skrenuti? (In which directions did Damir need to initially turn?)

- a) lijevo (left)
- b) desno (right)
- c) ravno (straight)
- d) natrag (backwards)

Text 5

Vocabulary	Grammar	Activity	Environment
Names of sports, like, dislike, colours	Accusative & locative	Discussing the hobbies and favourite sports	Unspecified

- Senka: Bok! Kako si? (Hi! How are you?)
- Zvonko: Bok! Odlično sam. A kako si ti? (Hi! I am great. And how are you?)
- Senka: Tako-tako. (So-so.)
- Zvonko: Što radiš ovaj vikend? Baviš li se sportom? (What are you doing this weekend? Do you occupy yourself with sport?)
- Senka: Da, bavim se sportom. Volim igrati rukomet. (Yes, I occupy myself with sport.)
- Zvonko: I ja također! Ja volim igrati rukomet. Gdje je teren za rukomet? (And I do too ! I love playing handball. Where is the court for handball.)
- Senka: Teren za rukomet je u Maksimiru. Otvoren je srijedom i nedjeljom. Ja idem tamo često. (The court for handball in Maksimir is available Wednesdays and Sundays. I go there regularly.)
- Zvonko: Ja idem u Brezovicu. U Brezovici je teren za rukomet otvoren svaki dan. (I am going to Brezovica. In Brezovica the court for handball is available every day.)

Question 9: Kako je Senka? (How is Senka?)

- a) Senka je tako-tako. (Senka is so-so.)
- b) Senka je odlično. (Senka is great.)
- c) Senka je vrlo dobro. (Senka is very good.)
- d) Senka je loše danas. (Senka is bad today.)

Question 10: Kojim danima je teren za rukomet u Maksimiru otvoren? (On which days is the court for handball in Maksimir open?)

- a) svaki dan (every day)
- b) srijedom i nedjeljom (Wednesdays and Sundays)
- c) svakog ponedjeljka (Every Monday)
- d) četvrtkom i subotom (Thursdays and Saturdays)

Questions Relating to CEFR level A2

Text 6

Vocabulary	Grammar	Activity	Environment
Weather words		Listening to a weather report	In the car

Vremenska prognoza

U Puli će sutra biti sunčano i toplo. Preksutra će biti vrlo sparno. Što se tiče Dalmacije, tamo će prevladavati sunčano. Preksutra postoji mogućnost i za malo kiše. Današnja temperatura bit će od sedamnaest do dvadeset jedan stupanj.

Question 11: Točno ili netočno (True or False. note: these terms are available translated in English for the test taker.)

U Puli će sutra biti vrlo sparno. (In Pula tomorrow it will be very humid.)

- a) Točno (True)
- b) Netočno (False)

Question 12: Današnja temperatura u Dalmaciji bit će od ... (Today's temperature in Dalmatia is from..)

- a) 7 do 23 stupnja (7 to 23)
- b) 16 do 11 stupnja (16 to 11)
- c) 17 do 21 stupanj (17 to 21)
- d) 15 do 22 stupnja (15 to 22)

Text 7

Vocabulary	Grammar	Activity	Environment
weekend, hobbies: music	Genitive – preposition: poslije	Discussing a weekend outing	Meeting, unspecified

and genitive form of posao – posla. Question format	location
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- Tina: Bog, Mario! Kako si? (Hi, Mario! How are you?)
- Mario: Dobro, hvala. A kako si ti? (Good thank you. And how are you?)
- Tina: Ja sam dobro. Što radiš poslije posla? (I am good. What are you doing after work?)
- Mario: Idem u Pulu. (I am going to Pula.)
- Tina: Odlično. Zašto ideš u Pulu? (Great. Why are you going to Pula?)
- Mario: Idem u Pulu jer je u Areni koncert. (I am going to Pula because there is a concert in the Arena.)
- Tina: Voliš li slušati glazbu? (Do you like listening to music?)
- Mario: Da, jako volim slušati klasičnu glazbu. (Yes, I very much like listening to classical music.)
- Tina: Sretan put! (A good trip! [as in wishing you a good trip])
- Mario: Hvala, ugodan vikend! Doviđenja! (Thank you, comfortable weekend [as in I'm wishing you a comfortable weekend]! Good bye.)
- Tina: Doviđenja! (Good bye.)

Question 13: Kamo će Mario ići? (Where is Mario going?)

Write the name of the place in the box below. For example: Osijek.

Answer: Pula

Question 14: Što će Mario raditi za vikend? (What is Mario doing for the weekend?)

- a) Mario će gledati novi film. (Mario is watching a new film.)
- b) Mario će posjetiti prijatelja. (Mario is visiting a friend.)
- c) Mario će ići na koncert u Arenu. (Mario is going to a concert in the Arena.)
- d) Mario će ići na more. (Mario is going to the sea.)

Text 8

Vocabulary	Grammar	Activity	Environment
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Adverb: gladan/gladna Nouns: jelovnik, hrana Verbs: popiti, preporučiti, probati	Conjugating selected verbs	Ordering food and drink	Restaurant
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- Jelena: Dobra večer! (Good evening!)
- Goran: Dobra večer, Jelena! Izvoli.(Good evening, Jelena! Go ahead [as in take a seat].)
- Jelena: Hvala, Gorane. Kako si? (Thank you, Goran. How are you?)
- Goran: Dobro sam, a ti? (I am good, and you?)
- Jelena: Ja sam jako dobro. (I am very good.)
- Goran: Ovaj restoran ima dobru hranu. Bio sam ovdje mnogo puta. (This restaurant has tasty food. I have been here many times.)
- Jelena: Dobro! Što mi preporučuješ za večeru? (Good! What do you recommend for dinner?)
- Goran: Jesi li gladna? (Are you hungry?)
- Jelena: Da, jesam. (Yes, I am.)
- Goran: Onda moraš probati lignje. Hoćeš li nešto popiti? (Then you must try the squid. Do you want something to drink?)
- Jelena: Da. Ja bih bijelo vino. (Yes. I want white wine.)
- Goran: I ja bih bijelo vino. Naručiti ću bocu. (Me also. I will order a bottle of white wine.)
- Jelena: Dobra ideja! Što ćeš jesti? (Good idea! What will you eat?)
- Goran: Mm. Ne znam. Dodaj mi jelovnik, molim te. (Mm. I don't know. Give me the menu, please.)
- Jelena: Evo, jelovnik! (Here, the menu!)
- Goran: Hvala. Mmm. Ja bih sarmu. Ovdje je uvijek dobra. (Thank you. Mmm. I want cabbage rolls. It is always good here.)
- Jelena: Konobar upravo dolazi. (The waiter is now coming.)

Question 15: Što Goran preporučuje Jeleni za večeru? (What does Goran recommend for Jelena for dinner?)

- a) kruh (bread)
- b) bijelo vino (white wine)
- c) sarmu (cabbage rolls)

d) lignje (squid)

Question 16: Što Goran pita Jelenu da mu doda? What does Goran ask Jelena to give him?

a) bocu vina (bottle of wine)

b) lignje (squid)

c) jelovnik (the menu)

d) kruh (bread)

Text 9

Vocabulary	Grammar	Activity	Environment
Invitation, questioning	Questioning	Inviting someone to a party	Meeting in the hall at work

Nadia: Dobra večer! (Good evening!)

Tomislav: Dobra večer! Kako si? (Good evening! How are you?)

Nadia: Dobro sam hvala. A ti? (I am good thank you. And you?)

Tomislav: Umoran sam! (I am tired!)

Nadia: Zašto si umoran? (Why are you tired?)

Tomislav: Radio sam previše ovaj tjedan. (I worked too much this weekend.)

Nadia: To nije dobro. Moraš se čuvati. (That is not good. You must look after yourself.)

Tomislav: Želim te pozvati k sebi u subotu. Neki prijatelji će doći. Piti ćemo vino i slušati glazbu. (I wish to invite you to my [place] on Saturday. We are having wine and listening to music.)

Nadia: Žao mi je. Ne mogu prihvatiti poziv. Ne mogu doći. Moram ići mami na cijeli vikend. (It saddens me. I cannot accept your invitation. I cannot come. I must go to mum's [place] the whole weekend.)

Tomislav: Šteta! Ti si tako zabavna. Gdje živi tvoja mama? (Shame! You are so much fun. Where does your mum live?)

Nadia: Mama živi u gradu, blizu kazališta. (Mum lives in the city, near the theatre.)

Tomislav: To je lijepi dio grada! Moram ići sada. Ugodan vikend! (It is a

beautiful part of town! I must now go. [Wishing you a] comfortable weekend!

Nadia: Hvala. Bog! (Thank you. Bye!)

Question 17: Kamo je Tomislav pozvao Nadiu? (Where does Tomislav invite Nadia to?)

- a) Tomislav je pozvao Nadiu u kazalište. (Tomislav invited Nadia to the theatre.)
- b) Tomislav je pozvao Nadiu u grad. (Tomislav invited Nadia to the city.)
- c) Tomislav je pozvao Nadiu u svoju kuću. (Tomislav invited Nadia to his house.)
- d) Tomislav je pozvao Nadiu u prijateljevu kuću. (Tomislav invited Nadia to a friend's house.)

Question 18: Točno ili netočno? (True or false?)

Nadia je prihvatila poziv. (Nadia accepted the invitation)

- a) Točno (True)
- b) Netočno (False)

Text 10

Vocabulary	Grammar	Activity	Environment
Time, place, who was there, what happened		Discussing a party	Meeting of friends, unspecified location

Tomislav: Bog! Kako si, Nadia? (Hi! How are you, Nadia?)

Nadia: Odlično! A ti? (Great! And you?)

Tomislav: Kakav vikend! Opet sam umoran. Osam ljudi je bilo kod mene u subotu navečer. (What a weekend! Again I am tired. Eight people were at my place on Saturday evening.)

Nadia: Tko je bio? (Who was there?)

Tomislav: Tina, Marina, Zvonimir, Vladimir, Marijana, Luka, Šime i Mirko su bili kod mene. (Tina, Marina, Zvonimir, Vladimir, Marijana, Luka, Šime and Mirko were at my [place].)

Nadia: Tina je bila? (Tina was there?)

Tomislav: Da. Tina je bila kod mene. Stigla je u šest a otišla je u ponoć. Popila je

previše. (Yes. Tina was at my [place]. She arrived at six and left at midnight. She drank too much.)

Nadia: Joj! Što je Marijana obukla? (Oh! What did Marijana wear?)

Tomislav: Marijana je imala lijepu haljinu. (Marijana wore a beautiful dress.)

Nadia: Kakve boje? (Which colour?)

Tomislav: Haljina je bila ružičasta. (The dress was a pink.)

Nadia: Hajde! Nemamo više vremena za razgovor. Moramo ići na posao!
(Hurry! We do not have anymore time for conversation. We must go to work!)

Question 19: Točno ili netočno (True or false)

Tina je bila u Tomislavovoj kući. (Tina was at Tomislav's house.)

a) Točno (True)

b) Netočno (False)

Question 20: Što je Marijana nosila? (What did Marijana wear?)

a) Marijana je nosila lijepu plavu haljinu. (Marijana wore a beautiful blue dress.)

b) Marijana je nosila lijepu ružičastu haljinu. (Marijana wore a beautiful pink dress.)

c) Marijana je nosila lijepu ružičastu suknju. (Marijana wore a beautiful pink skirt.)

d) Marijana je nosila lijepu ljubičastu suknju. (Marijana wore a beautiful purple skirt.)

Appendix G: Croatian Pre-test of Listening Comprehension Level 2 :

Test Details: Language – Croatian; Language Skill – Listening; Target Level - A2, A2+ B1

The test contains one warm up question.

Topics/Activities Covered:

Question types: multiple choice and written (simple one word or sentence response)

Warm Up Question

0) Text:

Natasha: Dobar dan! (Good day!)

Zvonko: Dobar dan! Ja sam Zvonko. A Vi? (Good day! I am Zvonko. And you?)

Natasha: Drago mi je. Ja sam Natasha. (Please to meet you. I am Natasha.)

Zvonko: Drago mi je. Kako ste? (Please to meet you. How are you?)

Natasha: Dobro, hvala. A Vi? (Good, thanks. And you?)

Zvonko: Odlično sam. (I am great.)

Natasha: Koliko godina imate? (How old are you?)

Zvonko: Imam dvadeset šest godina. (I am twenty-six years old.)

Question 0: Kako se Nataša osjeća? (How does Natasha feel?)

a) Natasha se osjeća sretno. (Natasha feels lucky.)

b) Natasha se osjeća dobro. (Natasha feels good.)

c) Natasha se osjeća loše. (Natasha feels bad.)

d) Natasha se osjeća odlično. (Natasha feels great.)

Questions Relating to Level A2

Text 1

Vocabulary	Grammar	Activity	Environment
Months, places, professions	Genitive prepositions: odakle, od, iz	Meeting others	Classroom entrance

Pozdravljanje (Introductions)

Zvonko: Dobar dan. (Good day!)

- Nikola: Dobar dan, ja sam Nikola. A Vi ste profesor Ružić? (Good day! I am Nikola. And you are professor Ružić?)
- Zvonko: Da, jesam. Drago mi je. Jeste li Vi moja nova studentica? (Yes, I am. Please to meet you. Are you my new student?)
- Nicola: Jesam. I moj brat je Vaš student. On će uskoro stići. (I am. And my brother is your student. He will soon arrive.)
- Zvonko: Kako se zove? (What is he called?)
- Nicola: On se zove Miro. On je stariji od mene. (He is called Miro. He is older than me.)
- Zvonko: Dobro. Odakle ste? (Good. Where are you from?)
- Nicola: Mi smo iz Njemačke. Sad živimo u Zagrebu. Tu smo već mjesec dana. Ja ostajem ovdje još godinu dana. Miro ostaje još tri mjeseca. (We are from Germany. Now we live in Zagreb. We have been here already a month. I will remain here for another year. Miro will remain [here] for still three months.)
- Zvonko: I moja žena je isto iz Njemačke. Njemačka nije daleko od Hrvatske. (And my wife is also from Germany. Germany is not far from Croatia.)
- Nicola: Istina je. Je li Vaša žena profesorica? (That is true. Is your wife a professor?)
- Zvonko: Ne, nije. Ona je liječnica. Radi u bolnici. (No, she isn't. She is a doctor. She works in the hospital.)
- Izvolite, uđite. (Go ahead enter.)
- Nicola: Hvala. (Thank you.)

Question 1: Kako se zove Nikolin brat? (What is Nikola's brother called?)

- a) Nikolin brat se zove Njemačke. (Nikola's brother is called Germany.)
- b) Nikolin brat se zove Miro. (Nikola's brother is called Miro.)
- c) Nikolin brat se zove Također. (Nikola's brother is called Also.)
- d) Nikolin brat se zove profesor Ružić. (Nikola's brother is called professor Ružić.)

Question 2: Koliko je dugo Miro već u Hrvatskoj? (How long has Miro already been in Croatia?)

- a) Miro je u Hrvatskoj već mjesec dana. (Miro has already been in Croatia for a month.)
- b) Miro je u Hrvatskoj već godinu dana. (Miro has already been in Croatia for a year.)
- c) Miro je u Hrvatskoj već tri mjeseca. (Miro has already been in Croatia for three months.)
- d) Miro je u Hrvatskoj već dva mjeseca. (Miro has already been in Croatia for two months.)

Text 2

Vocabulary	Grammar	Activity	Environment
Doctor, illnesses, time	Question and command form	Going to the doctor	Doctor's office

Bolestan sam

- Liječnika: Dobar dan! (Good day!)
- Toni: Dobar dan! (Good day!)
- Liječnika: Kako Vam mogu pomoći? (How can I help you?)
- Toni: Prehladen sam i kašljem. (I have caught a cold and I am coughing.)
- Liječnika: To nije dobro. Imate li temperaturu? (That is not good. Do you have a temperature?)
- Toni: Da, sinoć sam imao temperaturu ali je jutros nemam. (Yes, last night I had a temperature but this morning I do not.)
- Liječnika: To je normalno. Inače se stanje pogorša tijekom noći. (It is normal. Usually the situation gets worse at night.)
- Toni: Da. To je istina. (Yes. That is true.)
- Liječnika: Uzmite lijek za temperaturu i protiv kašljanja. Odmorite se i spavajte ako možete. (Take medicine for the temperature and against the cough. Rest and sleep if you are able.)
- Toni: Puno Vam hvala. (Thank you very much.)
- Liječnika: Čuvajte se! (Look after yourself!)
- Toni: Doviđenja. (Good bye.)
- Liječnika: Doviđenja (Good bye.)

Question 3. Zašto je Toni posjetio liječnika? (Why has Toni visited the doctor?)

- a) Toni je posjetio liječnika zbog noge. (Toni is visiting the doctor because of [his] leg.)
- b) Toni je posjetio liječnika zbog prehlade i kašlja. (Toni is visiting the doctor because he has caught a cold and is coughing.)
- c) Toni je posjetio liječnika jer ne može spavati. (Toni is visiting the doctor because he cannot sleep.)
- d) Toni je posjetio liječnika zbog jutarnje temperature. (Toni is visiting the doctor because he had a temperature in the morning.)

Question 4. Kada se stanje pacijenta pogorša? (When does the patient's condition deteriorate?)

- a) Inače se stanje pogorša tijekom dana. (Usually the condition worsens throughout the day.)
- b) Inače se stanje pogorša tijekom noći. (Usually the condition worsens throughout the night.)
- c) Inače se stanje pogorša tijekom ljeta. (Usually the condition worsens throughout the summer.)
- d) Inače se stanje pogorša tijekom dana. (Usually the condition worsens in the day.)

Question 5. Što je liječnica dala Toniju? (What did the doctor give Toni?)

- a) Liječnica je dala Toniju temperaturu. (The doctor gave Toni a temperature.)
- b) Liječnica je dala Toniju lijek za glavobolju. (The doctor gave Toni medicine for a headache.)
- c) Liječnica je dala Toniju zavoj. (The doctor gave Toni a bandage.)
- d) Liječnica je dala Toniju lijek za temperaturu i protiv kašljanja. (The doctor gave Toni medicine for a temperature and against coughing.)

Text 3

Vocabulary	Grammar	Activity	Environment
Verbs: sastati; živjeti; ići; činiti; misliti	Instrumental case. Reflexive verbs.	Organising an outing for next get together.	Friend's house – at the door

Ovaj vikend (This weekend)

- Andrija: Što radiš ovog vikenda? (What are you doing this weekend?)
- Sandra: Moj prijatelj Jozo i ja idemo u Čakovec. Hoćeš li ići s nama? (My friend Jozo and I are going to Čakovec. Do you want to go with us?)
- Andrija: Hoću. Odlično! Moja sestrična živi u Čakovcu. (Great! My cousin lives in Čakovec.)
- Sandra: Možda ćemo se sastati s njom za ručak. (Perhaps we can meet with her for lunch.)
- Andrija: U redu. Ona voli goste. (OK. She loves guests.)
- Sandra: Dogovoreno! Idemo u Čakovec u subotu. Put od Zagreba do Čakovca traje sat i pol. Krenut ćemo oko devet sati. Što misliš o tome? (It's agreed! We are going to Čakovec on Saturday. The journey from Zagreb to Čakovec lasts one and a half hours. We will turn back at around 10 o'clock. What do you think?)
- Andrija: Čini mi se kao dobra ideja. (It seems to me like a good idea.)
- Sandra: Zdrinkina kuća je u Čakovcu. Jesi li ju ikad posjetio? (Zrinka's house is in Čakovec. Have you ever visited her?)
- Andrija: Ne, nisam. Onda hajdemo Zdrinki. (No, I didn't. Then let's go to Zrinka's.)
- Sandra: Dobro. Vidimo se u subotu. (Good. We will see each other on Saturday.)
- Andrija: Bog. (Bye.)
- Sandra: Bog. (Bye.)

Question 6: Kamo idu Andrija i Sandra ovaj vikend? (Where are Andrija and Sandra going this weekend?)

- a) Andrija i Sandra idu u Zagreb. (Andrija and Sandra are going to Zagreb.)
- b) Andrija i Sandra idu u Osijek. (Andrija and Sandra are going to Osijek.)
- c) Andrija i Sandra idu u Split. (Andrija and Sandra are going to Split.)
- d) Andrija i Sandra idu u Čakovec. (Andrija and Sandra are going to Čakovec.)

Question 7: U koliko će sati krenuti? (In which hour will they return?)

- a) Krenut će oko devet sati. (They will return around ten o'clock.)
- b) Krenut će oko sedam sati. (They will return around seven o'clock.)

- c) Krenut će oko pet sati. (They will return around five o'clock.)
 d) Krenut će oko deset sati. (They will return around ten o'clock.)

Question 8: Točno ili netočno? (True or False?)

Andrija nije nikada prije bio u Zdrinkinoj kući. (Andrija has not previously been in Zdrinka's house.)

- a) Točno (True)
 b) Netočno (False)

Text 4

Vocabulary	Grammar	Activity	Environment
Verbs: Kupiti; raditi;	Genitive prepositions: poslije;	Phone conversation.	At home.

- Zvonko: Dobar dan, Tanja. (Good day, Tanja.)
 Tanja: Dobar dan, Zvonko. (Good day, Zvonko.)
 Zvonko: Kako si? (How are you?)
 Tanja: Dobro sam. Bila sam u trgovini danas i kupila nove cipele. (I am good. I was at the shop today and I bought new shoes.)
 Zvonko: Super! I ja sam kupio nove cipele jučer! (Super! And I bought new shoes yesterday.)
 Tanja: Što radiš večeras? (What are you doing tonight?)
 Zvonko: Ništa, slobodan sam. (Nothing, I am free.)
 Tanja: Hoćeš li ići na festival i onda u kino? (Do you want to go to the festival and then to the cinema?)
 Zvonko: Zašto ne? Može. Što ćemo raditi poslije kina? (Why not? Can [do]. What will we do after the cinema?)
 Tanja: Možemo ići u kafić. (We can go to the cafe.)
 Zvonko: Dogovoreno! U koliko sati ćemo se naći? (Agreed. At what time will we meet?)
 Tanja: Sada je 6 sati, možda u 8? (Now is six o'clock, perhaps at eight?)
 Zvonko: Dobro. Vidimo se! (Good. See you!)
 Tanja: Bog. (Bye.)

Question 9. Točno ili netočno? (True or False?)

Tanja je bila u školi danas. (Tanja was in school today.)

a) Točno (True)

b) netočno (False)

Question 10. Kamo će poslije kina? (Where will they go after the cinema?)

a) Poslije kina će ići u kafić. (After the cinema they went to the cafe.)

b) Poslije kina će ići na festival.

c) Poslije kina će ići u trgovinu.

d) Poslije kina će ići u 6 sati.

Text 5

Vocabulary	Grammar	Activity	Environment
Adverbs: izvrsno; uzbuđena.		Conversation about clothing prior to entering the theatre.	Out the front of the theatre.

Koncertna dvorana

Ana: Dobra večer. (Good evening.)

Zvonko: Dobra večer. (Good evening.)

Ana: Kako si? (How are you?)

Zvonko: Dobro sam, čak izvrsno. Hvala na pitanju. A kako si ti? (I am good, even excellent. Thanks for asking. And how are you?)

Ana: Ja sam tako uzbuđena. (I am very excited.)

Zvonko: I ja! Nisam nikad bio u ovom kazalištu. (I am also! I have not been to this theatre before.)

Ana: Bila sam puno puta. Meni je divno. Volim klasičnu glazbu. Koju vrstu glazbe ti najviše voliš? (I have been many times. (To me) It is wonderful. I love classical music. Which type of music do you like the most?)

Zvonko: I ja najviše volim klasičnu. Sviđa mi se što ljudi nose u kazalištu. (I also like classical the most. I like what people wear to the theatre.)

Ana: Ja ne volim nositi duge haljine. Volim nositi jednostavnu odjeću. (I don't like to wear long dresses. I like wearing simple clothes.)

Zvonko: Ne slažem se s tobom! Jednostavna odjeća se nosi svaki dan, a

ponekad treba obući nešto neobično, nešto svečano. (I don't agree with you! You wear ordinary clothes every day, occasionally you wear something out of the ordinary, something festive.)

Ana: Joj, nema potrebe! Hoćemo li ući sada? (Oh, no need! Will we go inside now?)

Zvonko: Hajde! Idemo! (Come on! Let's go!)

Question 11: Kamo Zvonko i Ana idu večeras? (Where are Zvonko and Ana going tonight?)

- a) Zvonko i Ana idu večeras u kino.
- b) Zvonko i Ana idu večeras u kuću.
- c) Zvonko i Ana idu večeras u kafić.
- d) Zvonko i Ana idu večeras u kazalište.

Question 12. Točno ili netočno? (True or False?)

Ana je prije bila u ovom kazalištu. (Ana has been in this theatre before.)

- a) Točno (True)
- b) Netočno (False)

Question 13: Što Ana voli nositi u kazalište?

- a) Ana voli nositi duge haljine u kazalište. (Ana likes to wear long dresses to the theatre.)
- b) Ana voli nositi običnu odjeću u kazalište. (Ana likes to wear ordinary clothes to the theatre.)
- c) Ana voli nositi plavu majcu u kazalište. (Ana likes to wear a blue shirt to the theatre.)
- d) Ana voli nositi ružičastu majcu u kazalište. (Ana likes to wear a pink shirt to the theatre.)

Text 6

Vocabulary	Grammar	Activity	Environment
Weather and temperature	Genitive – from? Adjectives: size, weather and temperature	Discussion about the weather	Meeting in a classroom.

Kakvo je vrijeme? (What type of weather?)

Tina: Dobar dan, ja sam Tina. Drago mi je. (Good day, I am Tina. Please to meet you.)

Josip: I meni isto. Dobar dan, ja sam Josip. (And me also. Good day, I am Josip.)

Tina: Odakle ste Vi? (Where are you from?)

Josip: Ja sam iz Splita. A Vi? (I am from Split. And you?)

Tina: Ja sam iz Sydneya. Je li Split veliki grad? (I am from Sydney. Is Split a big city?)

Josip: Ne, Split nije veliki grad ali je drugi najveći grad u Hrvatskoj. Je li Sydney veliki grad? (No, Split is not a big city but it is the second biggest in Croatia. Is Sydney a big city?)

Tina: Da. Sydney je veliki grad. (Yes. Sydney is a big city.)

Josip: Kako je vrijeme u Sydneyu zimi? (How is the weather in Sydney in winter?)

Tina: Zimi nije tako loše. Temperatura je od 15 do 22 stupnja danju i možda 5 stupnjeva noću. Ljeto je moje najdraže vrijeme. Sunce sja. Inače temperatura je od 27 do 35 stupnjeva. Ponekada je prevruće, oko 40 stupnjeva Celzijevih. Ali to nije tako često. Volim plivati u moru preko ljeta. More je toplo. Savršeno je! (In winter it is not that bad. The degrees is from 15 to 22 through the day and perhaps 5 through the night. Summer is my favourite time. The sun shines. Usually [the temperature] is from 27 do 35. Occasionally it is too hot around 40. But that is not often. I love swimming in the sea through summer. The water is warm. It is excellent.)

Josip: Divno! Meni se isto sviđa ljeto. Vrijeme u Splitu je slično. (Super! I also like summer. The weather in Split is similar.)

Question 14: U kojem gradu živi Tina? (In which city does Tina live?)

a) Tina živi u Sydneyu. (Tina lives in Sydney.)

b) Tina živi u Splitu. (Tina lives in Split.)

c) Tina živi u Brisbaneu. (Tina lives in Brisbane.)

d) Tina živi u Zagrebu. (Tina lives in Zagreb.)

Question 15: Kakvo je vrijeme preko ljeta? (How is the weather over summer?)

a) Vrijeme preko ljeta je hladno i kiša pada. (The weather over summer is cold and rain falls.)

b) Vrijeme preko ljeta je toplo i ponekada vruće. Sunce sja. (The weather over summer is warm and often hot. The sun shines.)

c) Vrijeme preko ljeta je prevruće. Često je 40. (The weather over summer is too hot. Often it is 40.)

d) Vrijeme preko ljeta je toplo, ali se ne može plivati jer nije dovoljno vruće. (The weather over summer is warm but you cannot swim because it is not hot enough.)

Text 7

Vocabulary	Grammar	Activity	Environment
Sport related words	Instrumental case Reflexive pronoun	Meeting an acquaintance on the street	On the footpath in the city.

Sport

Marina: Bog! Što radiš ovaj vikend? (Hi! What are you doing this weekend?)

Pavle: Igram tenis s Jozom. (I am playing tennis with Jozo.)

Marina: Nisam znala da voliš igrati tenis. Ja volim tenis. Igram ponedjeljkom. Trebamo još tenisača. Hoćeš li igrati s nama? (I didn't know that you like playing tennis. I like tennis. I play on Mondays. We need another tennis player. Do you want to come with us?)

Pavle: Može. Trebam malo više kondicije. Gdje igraš? (Can do. I need a little more fitness. Where do you play?)

Marina: Igram u Goričanu. (I play in *Goričan*.)

Pavle: Divno! Od moje kuće do terena samo je 10 minuta. (Wonderful! It is only 10 minutes from my house to the court.)

Marina: Baviš li se kojim drugim sportom? (Do you play another sport?)

Pavle: Da. Igram nogomet srijedom sa Zvonkom. Znaš li Zvonka? Yes. I am playing football on Wednesdays with Zvonko. Do you know Zvonko?)

Marina: Zvonko, mmm, je li on Mirin brat? (Zvonko, mmm, is he Miro's

brother?)

Pavle: Da. (Yes.)

Marina: On je dobar nogometaš. (He is a good soccer player.)

Pavle: Da, da. Zabija puno golova! (Yes, yes. He gets many goals!)

Question 16. Kojim danom Marina igra tenis? (On which day does Marina play tennis?)

a) Ponedjeljkom (Mondays)

b) Utorkom (Tuesdays)

c) Srijedom (Wednesdays)

d) Četvrtkom (Thursdays)

Question 17. Točno ili netočno? (True or False?)

Zvonko je dobar nogometaš. (Zvonko is a good soccer player.)

a) Točno (True)

b) Netočno (False)

Text 8

Vocabulary	Grammar	Activity	Environment
Different countries names.	Comparing locative and accusative: u Italiju; u Italiji	Discussion regarding travel	Work colleagues at a coffee room

Travel

Ivana: Kako si? (How are you?)

Goran: Dobro hvala, a ti? (Good thank you, and you?)

Ivana: Odlično. (Great.)

Goran: Zašto si tako dobro? (Why are you so dobro?)

Ivana: Idem u Italiju za vikend. (I am going to Italy for the weekend.)

Goran: Često putuješ u druge zemlje. Prošli mjesec si išla u Njemačku. Imaš li obitelj ili prijatelje u Italiji? (You are travelling often to different countries. Last month, you went to Germany. Do you have family in Italy or friends?)

Ivana: Ne. Volim putovati. Ali ne idem sama. Željko ide sa mnom. (No. I love travelling. But I am not going alone. Željko is coming with me.)

- Goran: Željko nije nikada bio izvan Hrvatske. (Željko has never been outside of Croatia.)
- Ivana: Znam! Znam! Ovo je njegovo prvo putovanje van Hrvatske. Jako je uzbuđen. (I know! I know! This trip is his first trip. He is very excited.)
- Goran: Divno! Sretan put! (Super! Happy journey!)
- Ivana: Hvala. (Thank you.)
- Goran: Ne mogu dočekati da čujem sve o tvojoj avanturi. (I can't wait to hear about your adventure.)
- Ivana: Vidimo se sljedeći tjedan. (See you next week.)
- Goran: Vidimo se! (See you!)

Question 18. Točno ili netočno? (True or false?)

Goran putuje u Poljsku ovaj vikend? (Goran is travelling to Poland this weekend.)

- a) Točno (True)
- b) Netočno (False.)

Question 19. Što Goran ne može dočekati da radi? (What could Goran not wait to do?)

- a) Goran ne može dočekati da ide u Pulu. (Goran could not wait to go to Pula.)
- b) Goran ne može dočekati da ide izvan Hrvatske. (Goran could not wait to go outside of Croatia.)
- c) Goran ne može dočekati da čuje o Hrvatskoj. (Goran could not wait to hear about Croatia.)
- d) Goran ne može dočekati da čuje sve o Ivaninoj avanturi. (Goran could not wait to hear everything about Ivana's adventure.)

Text 9

Vocabulary	Grammar	Activity	Environment
Feelings: Razočarana Celebrations: Božić	Demonstrative pronoun: ovaj Genitive pronoun: njega	Friends having a discussion about plans for Christmas.	At home.

Christmas

Goran: Bog Tina! (Hi Tina!)

Tina: Bog! Kako si? (Hi! How are you?)

Goran: Dobro hvala a ti? (Good thank you and you?)

Tina: Razočarana sam. (I am disappointed.)

Goran: Zašto si razočarana? (Why are you disappointed?)

Tina: Zbog toga što mama ne može doći k meni za Božić. (Because mum cannot come to my [place] for Christmas.)

Goran: Zašto ne? Ona uvijek dođe k tebi za Božić. (Why not? She always comes to your [place] for Christmas.)

Tina: Znam, znam. Pavao je prigovorio mami da ona nikada ne pođe k njemu za Božić. (I know, I know. Paul said to mum that she never goes to his place for Christmas.)

Goran: Zato ona za ovaj Božić ide u Australiju! (That is why this Christmas she is going to Australia!)

Tina: Da. (Yes.)

Goran: Zar i ti ne možeš ići sa svojom mamom u Australiju za Božić? (Cannot you go with your mum also to Australia for Christmas?)

Goran: Ne. Niposto! Volim bijeli Božić. Neću Božić na plaži! Ne dolazi u obzir! (No. No chance! I like a white Christmas. I don't want Christmas on the beach! It cannot be considered!)

Tina: Joj! Nemoj biti takva! Moraš živjeti! (Oh! Don't be like that! You must live!)

Question 20. Zašto je Tina razočarana? (Why is Tina disappointed?)

- a) Zato što mama ne može doći k njoj za Božić. (Because her mum cannot come to her place for Christmas.)
- b) Zato što će njezina mama ići u Split za Božić. (Because her mum is going to Split for Christmas.)
- c) Zato što ju Pavao nije pozvao. (Because Pavle did not invite her.)
- d) Zato što ona hoće bijeli Božić. (Because she wants a white Christmas.)

Appendix H: Participant's Guidelines to Writing Email Reflections

Purpose: The purpose of your email reflections is to assist the researcher in gaining a better understanding of how effective the learning tasks are and how well the online tool that you are using (Second Life or Skype) helps you to develop your listening comprehension skills. The best time to write your email reflections is after you participate in each task. Writing email reflections is a voluntary activity and would assist me greatly in understanding your perspective as a learner.

Guidelines: Following each online task with your partner, write a reflection about the task you participated in. Please email the reflection once it is written to the researcher (natasha.levak@hotmail.com). The reflection can include:

- 1) Experiences with using the online tool: Was it hard to use from a technical perspective?
- 2) What strategies did you use to help you communicate: If you didn't understand what your partner said, what did you do?; If your partner was having troubles understanding a word, what did you do?
- 3) What are the positive and negative aspects of using the online tool (Second Life or Skype) with this task for developing your listening comprehension? Was there something that the tool enabled you to do or see which helped you learn the topic better or hindered your learning? Was there something the tool couldn't do that you would have like it to do for the particular topic?

If you have any questions regarding the reflection, please email the researcher Natasha Levak at natasha.levak@hotmail.com

Thank you for your participation.

Appendix I: Skype Date Coding Themes and Sub-themes with Examples

Table I.1

Skype Date Coding Themes and Sub-themes with Examples

Themes (Nodes) and Sub-themes	Group	Coded Text Examples
Motivation		
Nodes\\01) Motivation/ Communication & world language	7	I want to learn English because Croatia are [<i>sic</i>] entering the EU and English is used in EU countries. Also I would like to travel to America one day.
Nodes\\01)Motivation\Compulsory	7	Because I had to choose another language and I was good at English.
Nodes\\01) Motivation\Enjoy learning languages or general interest in the language	7	But I've been learning [<i>sic</i>] few other languages so I must say the main reason is that I love languages.
Nodes\\01) Motivation\Heritage & Croatian parent but didn't learn language as child	8	Um to build on my present knowledge having grown up with the language as a child and never having the opportunity to receive formal schooling as I lived in a country town.
Nodes\\01) Motivation\Improvement of skills	7	I wanted to improve my English. No specific reason. I learnt most of my English watching TV.
Nodes\\01) Motivation\Married into Croatian Family	8	I was learning and am learning because my fiancé is born there and that is, well, why we were going there and also I figured I would have someone at home to help.
Nodes\\01) Motivation\Married into Serbian Family	8	I joined the Croatian program because my fiancé is Serbian and there isn't anywhere in Brisbane for me to go to learn Serbian. It's hard to find books and CDs that can help except music. My fiancé told me that Croatian and Serbian are pretty much the same language.
Nodes\\01) Motivation\Travel	8	Well, I intend to travel there and I always like to speak a little of the language when I travel to a country.
Prior Knowledge		
Nodes\\02) Prior knowledge\high school	7	I had knowledge of English from school.
Nodes\\02) Prior knowledge\No prior knowledge or close to none	8	No.
Nodes\\02) Prior knowledge\ primary, elementary, high school (before entering university)	3	Yes. I started in elementary school.
Nodes\\02) Prior knowledge\Small amount	8	Only very basic ah hellos and goodbyes nothing more.

Strongest Skill		
Nodes\\03) Strongest skill\Listening	4	Um, still listening but I can understand more now.
Nodes\\03) Strongest skill\Multiple skill response	7	I think that my strongest skill is listening and reading. I can speak but I think that I am not so good for speaking.
Nodes\\03) Strongest skill\Reading	8	Well I think um probably reading.
Nodes\\03) Strongest skill\Speaking	8	Probably speaking um I can speak more than I can write um and also more than I can listen to it at a fast pace.
Nodes\\03) Strongest skill\Writing	7	Maybe writing in English. I am more focused on grammar for writing. When speaking, sometimes I like how my accent changed to British for some words.
Preparation for Tasks		
Nodes\\04) Preparation for tasks\No preparation changes (for their own learning)	3	No. Not for me. I didn't do preparation. I read the file before we started for English. I did help my partner very much this was needed.
Nodes\\04) Preparation for tasks\Prepared responses & actioned learning	3	Um I would throughout my week if I was interested in knowing a particular sentence or a particular word or how a particular word may fit into a sentence, I would write it down and when I got to the Skype and when I was talking to the Skype friend I would then ask her.
Nodes\\04) Preparation for tasks\Prepared responses & practised to assist partner	3	I met my partner before to improve his Croatian. He is a beginner and very bad in all areas. I wanted to help him because he is learning for his family and that is good. Very good. Yes. He is a Australian.
Nodes\\04) Preparation for tasks\Read task - only	3	I just read it before we had the lesson.
New Experiences as a Language Learner Using Skype		
Nodes\\05) New experiences as a language learner\extend learning	8	Yes um it allowed for discussions to go beyond just the classroom text so in part the learning was based on interest and not just the classroom environment.
Nodes\\05) New experiences as a language learner\learn correct accent	8	I find it fun and it gives you different conversation skills and learning to speak with a correct accent.
Nodes\\05) New experiences as a language learner\None	3	No I have used Skype but not in the classroom lesson.
Nodes\\05) New experiences as a language learner\Using Skype comment	8	It did. Our class in not very large about 15 students or so but often you have to wait for your turn or help when you are working on Skype with a partner who

		can help you like a teacher does then you don't need to wait at all. I felt that the hour had more learning in it than a standard hour.
Nodes\\05) New experiences as a language learner\Opportunity to meet and speak with new people or native speaker	3	This was more interesting to be meeting Australians. Ahh our professor is Australian too but this is a different experience.
Nodes\\05) New experiences as a language learner\someone to explain the culture	8	Yeh definitely umm it was really good speaking to **** (partner's name removed) because she told me all the stuff about the culture and I was like this is how holidays are over here and she was like its not like that over here. It was really good. it was good to have someone explaining the culture. It was really good for the restaurant one well for chicken I said <i>kokoša</i> and she said that no it was <i>pilitina</i> and I had said the live chicken.
Nodes\\05) New experiences as a language learner\Using Skype comment	3	Yes because our lessons usually focus on textbooks. We do not use technology at all in class and this was different. It was interesting method for learning.
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How did you feel using Skype?		
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Nodes\\06a) How did you feel\Difficulties speech rate or knowledge of language	8	At first I found it embarrassing because I didn't have the correct accent and sometimes I didn't understand the grammar but with instant communication is instant correction and learning.
Nodes\\06a) How did you feel\General positive comment	3	Loved it. I was so focused on improvement and this gave me chance to focus my effort on what I know and need.
Nodes\\06a) How did you feel\convenient & practical	3	Easier access at convenient times.
Nodes\\06a) How did you feel\Skype reference	7	I liked seeing my partner's face and expression. To make friendship.
Nodes\\06a) How did you feel\Skype reference: time and money	8	Oh well I can just talk to anyone from all the way across the other side of the world obviously they're going to be talking at their hours which is possibly early in the morning when I'm late at night um like it doesn't mean that we have to waste our money on phone calls or sending post or things like that, sending mail.
Nodes\\06a) How did you feel\Speaking with native speaker	3	Good. I have no problem with speaking with Australians on Skype. The Australian accent can be hard to understand on some words. But it was good.
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Benefits		
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Nodes\\06b & 10) Benefits\Communicate with native speakers	4	Native conversation. It's invaluable.
	7	The biggest benefit is that native speaker corrects

		you while you are speaking and you can see your mistakes, and I myself learn better in that way.
Nodes\06b & 10) Benefits\extend listening and speaking skills	8	Um it kind of accentuates and pushes the listening and speaking um skills whereas, for example, in a classroom there is more often a lot of writing aspects involved and with Skype you're being pushed to talk more and you're being pushed to listen um and then like intentionally listen and talk more.
Nodes\06b & 10) Benefits\IM if not clear	7	The text message was helpful to give a link to a dictionary to my partner when *(partner's name removed) did not know a word.
Nodes\06b & 10) Benefits\instant synchronous assistance	8	I the benefits are if you get stuck on a certain aspect or word you have instant communication, correction and explanation.
Nodes\06b & 10) Benefits\Learn correct accent	8	Mmmm I think its good to talk to someone who's got the proper accent ...
Nodes\06b & 10) Benefits\personal tutor	8	It was great having your own personal tutor for that time each week. We did the tasks from the activity book however If I was unsure about some work from class I could ask my partner and he would help me.
Nodes\06b & 10) Benefits\General positive comment	3	Fun activities are important.
Nodes\06b & 10) Benefits\Seeing your partner in Skype	3	To see them and know who they are.
Nodes\06b & 10) Benefits\Feelings of closeness	3	The distance did not feel far away.
Nodes\06b & 10) Benefits\Skype reference - availability of partner	7	To have the opportunity to speak to another person somewhere on the other side of the world. Before technology we could not do this. I can learn about culture and use language without leaving my city.
Nodes\06b & 10) Benefits\activities	4	The activities gave our conversation focus. Because I am a beginner this helped me.

Strategies

Nodes\07) Strategies\Ask for meaning	7	I think there were some words I didn't understand, so I asked him to explain what does that word mean, or if he could put it in other situation.
Nodes\07) Strategies\Other - type IM	4	To write in on the text function in Skype.
Nodes\07) Strategies\Look at notes	8	Um, I don't know if I used so much strategies but I would just (interviewer: or different techniques, what would you actually do in that moment) um it depended on how much I couldn't understand, if I couldn't understand any of it I would just say I couldn't understand or maybe I would look at my book if it was something we were speaking, just look

		at the words next to me or if I could pick up just a few words then I would just keep going if I got the basic understanding of what she was talking about.
Nodes\\07) Strategies\None	3	The lessons were easy not like the lessons for the Second Life. I did not need assistance.
Nodes\\07) Strategies\Online support e.g. dictionary or translator	7	We didn't have big problems in understanding each other, but sometimes we used dictionary
	4	I used Google translate.
Nodes\\07) Strategies\Other	3	I used my hands to explain and I wrote it down on paper and then showed him the paper to the camera.
Nodes\\07) Strategies\Other - revert back to English	8	Because she was better at English than I spoke Croatian I could revert back to English, yeh.
Nodes\\07) Strategies\Other – write	4	I also wrote it down on paper
Nodes\\07) Strategies\Repeat	4	I asked **** (partner's name removed) to say the word again.
Nodes\\07) Strategies\Speak slowly	7	For my partner I did speak slowly and say words two or three times.
Nodes\\07) Strategies\Negotiation of meaning	3	Problem for me is explaining Croatian on English but together we get to the solution, two heads are better than one

Cultural Comment

Nodes\\08 & 9) Cultural comments\Examples of Difference & no problems with difference	7	It was not a problem for me. *(partner's name removed) told me that Australian culture is difficult and hard to explain because there are many cultures in Australia.
Nodes\\08 & 9) Cultural comments\festivals	7	It was a good way to meet people. There were differences like festivals. Australians do not celebrate Saint days like we do here.
Nodes\\08 & 9) Cultural comments\Food related comment	8	Yes definitely as I am Australian. The food they eat is culturally specific but not totally foreign for me because I often eat at his parents' place. So I have tasted some of the food before. Sometimes the names for the food were different.
Nodes\\08 & 9) Cultural comments\Learning about culture	8	It doesn't worry me where people are from I find their differences in cultures fascinating and that's why I visit other countries.
Nodes\\08 & 9) Cultural comments\Native speakers		It was good to speak to native speakers in my generation.
Nodes\\08 & 9) Cultural comments\Not many differences	7	I felt good having a partner from Australia. There were not many cultural differences, maybe that the Australian people are more communicative and relaxed when speaking.
Nodes\\08 & 9) Cultural comments\Positive comment	3	Good. I have been to Australia for holidays and travelled to the large cities Adelaide, Melbourne, Sydney and Gold Coast. I already saw what

		Australia is like.
Nodes\08 & 9) Cultural comments\School	8	Their schooling system was different than here. One week they start early and finish early and the other week they start late and finish late. It was interesting.
Nodes\08 & 9) Cultural comments\Weddings customs	7	There are a lot of things we talked about like weddings. The customs are a little bit different.
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Pitfalls of Using Skype		
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Nodes\11) Pitfalls of using Skype\Activity	4	I think it would of been best for Skype to be general interaction between the two people.
Nodes\11) Pitfalls of using Skype\Feel embarrassed and shamed	8	It can be confronting and you need to prepare more than you have to in a classroom environment. Fear of being the fool.
Nodes\11) Pitfalls of using Skype\No pitfalls	3	Nothing. It was a good experience.
Nodes\11) Pitfalls of using Skype\Rigid and structured	4	It is more rigid and structured.
Nodes\11) Pitfalls of using Skype\Need to look good	4	You have to look good each time now. No I don't know.
Nodes\11) Pitfalls of using Skype\Technology	7	There is sometimes a delay which is annoying.
Nodes\11) Pitfalls of using Second Life\Time to meet	7	Sometimes it is hard to find time to meet when both people are busy in their life.
Nodes\11) Pitfalls of using Skype\time zone	8	The pitfalls as in the negative? (Interviewer: yeh) the fact that the time zone because she was in Bosnia and Herzegovina we could have, we had to plan out when we were going to do it um so for example we would plan out every Wednesday. So she would have to be up on a Wednesday morning and I would have to be at a specific time say 6 o'clock if there was on one day that we couldn't do it um then probably the time zone difference.
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Suggestions for Improvement		
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Nodes\12) Suggestions for improvement\Detailed suggestions	7	Assuming that both partners have at least some knowledge of a language, I would just put some random topics for them to discuss (e.g. football, books, night life...) and again assuming that a person is interested in a language, they will ask things they don't understand when the other person is speaking
Nodes\12) Suggestions for improvement\None	3	No.
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Comparison between Second Life and Skype Facilitation Techniques		
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Nodes\\13) Comparison between Second Life and Skype	4	Skype was more personal and friendly. Second Life was more fun orientated.
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