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The dynamics of willingness to communicate in synchronous Chinese online language teaching and learning

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Abstract

While there has been growing academic attention to researching the dynamics in willingness to communicate (WTC), the variability in learners' WTC over different timescales has remained relatively under-researched, particularly in online language learning contexts. Although research on the dynamics of WTC has largely drawn from the learners' perspectives, little attention has been paid to individual learners' WTC by focusing on the perceptions of both the teachers and the learners. This study was carried out in a one-to-one Chinese language learning videoconferencing setting, where one tutor was partnered with one learner (four pairs in total) undertaking five or ten sessions, each lasting 20 minutes. This Synchronous Chinese Online Language Teaching (SCOLT) project, jointly offered by Beijing Language and Culture University (BLCU) and Massey University (MU), was purposefully built to support adult distance language learners of Chinese in New Zealand in experiencing learner-centred, personalised language learning in online environments. The study aims to explore the unique experience of each learner and to understand their WTC in Chinese (WTCC) across different timescales, including over single interactions, single sessions, and a series of sessions. Taking into account multidimensional factors affecting learners' WTCC, the tutors' and learners' perceptions across different timescales were also examined.

Informed by Complex Dynamic System Theory (CDST), this study employed a qualitative longitudinal case study research design. Multiple methods were applied for data collection, including the idiodynamic method, the experience sampling method (ESM), journals, the Session-based WTCC scales, stimulated recalls based on the learning session recordings, and a pre-session questionnaire. In order to portray insights about WTCC within each dyad, this study also conducted the idiodynamic method with the tutors to collect their views about their learners' WTCC during communicative activities.

Findings suggest how learners' WTCC on multiple timescales fluctuated during Chinese language communication activities. Learners' WTCC changed and stabilised over time, emerging from their interactions with the tutors, and the online environment. Furthermore, the dynamic and non-linear nature of learners' WTCC also appeared in micro timescales, such as minutes and seconds, which were influenced by the complex interplay of the individual (learners' self-perceived communicative competence, negative and positive emotions); the situational (topic-related factors, tutor-related variables, and the multimodality); and learners' agency to reinforce or resist the impacts of the factors at a specific time. The four learners showed quite different dynamics in WTCC, highlighting the uniqueness of individuals and the inherent complexity of WTCC systems. In addition, tutors' and learners' perceptions of learners' WTCC became more consistent over time with a desire to build and maintain the relationship and to select communication topics convergent with learners' communication needs. However, the respective ratings did not always match due to the complex and dynamic nature of learners' WTCC.

This study contributes to the literature in the field of learners' WTC research by extending our understanding of the dynamics of learners' WTCC in online Chinese language learning context. Based on the findings, this study has implications for research methodology and theoretical frames, shedding light on how learners' WTCC change at different timescales. Implications for online language learning and teaching are identified which can inform one-to-one contexts, teacher training and future research.

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Chapter 1 Introduction

1.1 Why this Research

My motivation to conduct the current research originates in my Chinese teaching and English language learning experiences. During my Master's studies, I taught oral Chinese for over a year to beginner students who were all from Malaysia. They were active and took every opportunity to speak Chinese, and even though they were from the same country, they never attempted to use their native language in class. After one year of Chinese language learning, the students successfully progressed to the intermediate level. But not every student was an active participant in class; there was a girl who caught my attention as she sometimes was very shy and reticent, but sometimes very talkative and enthusiastic. During her self-introduction, she did not have eye contact with anyone – she kept her head down and spoke fast sounding as if she was reciting something rather than freely talking about herself. In the first half of the semester, she never attempted to answer questions I posed in class. Whenever I posed a question, she tended to look away to avoid eye contact with me. Interestingly, she was very talkative in group activities and seemed to enjoy a dyadic conversation with her peers, and she was also one of the most enthusiastic students and loved to chat with me after class. On some occasions, such as *Chinese table* which involved students from several classes and different countries grouped together to have lunch or dinner, she was excited to talk with unfamiliar students, and even exchanged contact details with them. Over the year I was teaching, I was quite confused about whether she loved to talk or not, and I was curious to find out why she behaved so differently in different situations. I used to think that she tended to be silent in public speaking, but I still remember when we talked about a topic about age pressure for women, she stood up straight away and shared her mother's story, offering a different angle to show that age represents personal growth.

Another teaching experience which further piqued my curiosity came later during participation in the Synchronous Chinese Online Language Teaching (SCOLT) project (detailed information about SCOLT will be presented in Section 1.2.1) in 2017. This project was a new teaching mode for me as I did not have any teaching experience in online contexts at that time. In the project, I taught five 20–25-minute teacher-student interactive sessions based on teacher-student interaction with a single Chinese language learner in New Zealand (NZ) using ZOOM, and I had to undertake much of the initial preparation as there was no predetermined curriculum or suggested teaching guidelines for me. In this experience, my task was to engage the student in communication. Sometimes the learner appeared to be reluctant to speak, which made me feel extensively demotivated and affected my ongoing teaching process as sometimes I had to try multiple ways to motivate her to learn and actively participate in the SCOLT sessions, which slowed down the teaching process and I could not finish the teaching objectives on time.

These teaching struggles sometimes made me reflect on my own language learning experiences. As an English language learner, I have been learning English for over 20 years. In high school, I was told by my English teachers that “vocabulary is the flesh, grammar is the bone, you must accumulate enough knowledge of vocabulary and grammar before you can use the language”. After that, I fully believed in the value of memorizing English words and mastering grammar in English language acquisition and retained this instruction in my language learning process. However, this instruction seemed inconsistent with my experience of using English, especially when I had the opportunity to pursue my PhD degree in NZ. I remember vividly the first time I was on a plane to NZ; everybody was wrapped in blankets on an overnight flight. In the morning, a flight attendant gave me two options for breakfast in English. However, I failed to comprehend them and was only able to catch certain words: something “eggs” and “healthy” something. I was so nervous that I chose something healthy without asking for any explanation, and then everyone got a hot meal but me. As I eyed the

others' hot food on the cold plane, I wrapped the blankets tighter around me and ate the cold salad feeling even colder.

In fact, such awkward moments keep coming up in the real practice of English use since I arrived in NZ. Sometimes I tend to be quiet or barely say a word even though I am a relatively talkative person in my first language (hereafter L1, Mandarin Chinese). A fear of making mistakes, anxiety about talking in public, lacking knowledge of specific topics, forgetting words supposedly used in specific contexts, and the like can shut me down. On the other hand, I have had some enjoyable experiences in using English: for instance, I feel joy and pleasure when discussing my research topics with my supervisors or other colleagues, even though I make silly mistakes during discussions. These teaching and learning experiences kindled my interest in a research topic about the factors affecting me and my students during second language (L2) use. In fact, I was not aware at the time of the term "willingness to communicate (WTC)" until one of my supervisors pointed out that WTC was used to describe this phenomenon of a student's willingness to (dis)engage in the conversation. At that point, I started my WTC exploration journey.

The notion of L2 WTC, extended from its application in the domain of L1 communication to L2 communication, has often been defined as "a readiness to enter into the discourse at a particular time with a specific person or persons, using an L2" (MacIntyre et al., 1998, p. 547). The construct of WTC is seen as a prerequisite for successful language learning (Peng, 2007) and a final step before actual L2 use (MacIntyre et al., 1998). Ellis (2004) stated that an increase in WTC has been found to offer positive effects on L2 learning. L2 learners with high levels of WTC are more likely to benefit from communicative language teaching; to have more potential to practise in the L2 (MacIntyre et al., 2001; MacIntyre & Gardner, 1991; Peng & Woodrow, 2010); are more inclined to take risks using the L2 to communicate (Oxford, 1997); and become more active and autonomous learners (Kang, 2005), generally

achieving greater language proficiency (MacIntyre et al., 2001; MacIntyre et al., 1998; Yashima, 2002). Thus, a high level of WTC can facilitate L2 acquisition (Yashima et al., 2004).

Theoretical groundwork in and researching L2 WTC in contexts have witnessed substantial change over the past two decades. While initial accounts of L2 WTC conceptualised it as a stable trait-like predisposition, more recent perspectives have adopted a situated, dynamic approach to the investigation of this construct (MacIntyre, 2020). A body of early empirical research on L2 WTC mainly took self-reported quantitative measures, revealing potentially highly influential factors in linear correlations and causal relationships with L2 WTC (Hashimoto, 2002; Liu, 2017; Liu & Jackson, 2009). In the past few years, the social-dynamic turn in L2 motivation research has also contributed to a proliferation of empirical studies investigating L2 WTC as a complex, organic whole on different timescales (see Dörnyei et al., 2014; Dörnyei & Ryan, 2015; Yashima et al., 2018). Research conducted from this perspective seeks to study the dynamics, situatedness, and complexity of L2 WTC (Ducker, 2022; MacIntyre & Gregersen, 2022; MacIntyre & Legatto, 2011; MacIntyre & Wang, 2021). For example, MacIntyre and Legatto (2011) have demonstrated that fluctuations in L2 WTC might occur even on a per-second basis during the completion of a task. However, only a few of these studies have been conducted in a classroom context as opposed to a laboratory (Mystkowska-Wiertelak, 2016, 2021; Pawlak & Mystkowska-Wiertelak, 2015).

In addition, the complexity of L2 WTC affected by a range of linguistic, individual, and situational factors has been widely acknowledged and extensively studied (e.g., Bernales, 2016; Cao, 2009, 2013; Peng, 2012). However, research on L2 WTC in English has received the most attention, and there is a paucity of research investigating WTC in learners of Chinese as an L2 (Liu, 2017, 2018; Wang & Zhou, 2021). Some researchers have found that Chinese language is often perceived by students to be

difficult to learn (Stickler & Shi, 2013; Wang & East, 2020), for reasons such as the complexity of writing system, tonal pronunciation. These factors may present unique challenges for students and may influence their WTCC during communication. Teaching Chinese online adds another level of difficulties that requires extra digital tools and strategies to better present Chinese-related resources (Pinyin, a phonetic system in Chinese, Characters, etc.,) and facilitate communication. For example, how to incorporate interactive and multimedia resources, such as visual and audio aids to help address the language-specific challenges and enhance learners' WTC. Therefore, there is a need to investigate the factors that influence Chinese as an L2 learners' WTC during communication and how these factors exert their impact.

Moreover, with the advancement and affordances of technologies, researchers have begun to undertake research on L2 WTC in Computer Assisted Language Learning (hereafter CALL) environments (Buckingham & Alpaslan, 2017; Kissau et al., 2010; Lee & Drajadi, 2019a, 2019b; Reinders & Wattana, 2015). However, there are limited studies investigating the dynamic nature of L2 WTC in the synchronous computer-mediated communication (SCMC) context despite the fact that SCMC has become a popular and important online language teaching practice (Lee & Liu, 2022). Therefore, how learners' WTC changes at different timescales (e.g., during a single activity, or over a series of sessions), how students explain the change or stability, and learners' and teachers' views on learners' WTC in SCMC environments remain unexplored and have all informed the current research reported here.

1.2 Background

Chinese language education in NZ has spanned a long history of over 70 years (Wang & Chik, 2022). It began in 1950 to preserve Chinese children's cultural roots and Chinese literacy in NZ (Wang, 2021). Chinese language programs in the NZ tertiary sector also have a long tradition. Since the first Chinese program was established at the

University of Auckland (1966), other universities, including Victoria University of Wellington (1974), Massey University (1989), University of Waikato (1991), University of Otago (1993), University of Canterbury (1994), and Auckland University of Technology (1994), have also developed their own Chinese program. Despite offering Chinese as a subject at tertiary settings and in the school sector, only in the recent two decades have New Zealanders become more enthusiastic about learning Chinese, primarily with China's increasing economic influence (Li, 2022; Wang, 2021). For example, 69% of NZ participants perceived Mandarin as one of the most useful foreign languages (New Zealand China Council, 2018). From 2010 to 2020, over 800 Mandarin Language Assistants, mainly consisting of postgraduate students from China, volunteered (sponsored by the Chinese Government) to promote and support Mandarin teaching in the school sector across NZ (Qi, 2021; Wang & Chik, 2022).

However, the huge diversity in different groups of learners' needs and aspirations has posed challenges for Chinese language education in NZ (Wang & Chik, 2022). In terms of learners' backgrounds, taking Massey University as an example, students are made up of those with Chinese heritage who potentially have some experience of Chinese as a family or home language, and those without that (e.g. NZ Europeans, Māori, Pasifika, and a small number of international students from countries like Australia and South Korea) (Li, 2022). Similar to Australia, where "the multiple presences of Chinese as a language of heritage, a community language and a foreign language" (Lo Bianco, 2011, p. xvii) has been a norm, Chinese teaching in New Zealand has to balance and deal with the three distinct domains in terms of educational goals, teaching approaches, learning resources, assessment designs, and so on. (Wang & Chik, 2022). In addition, students' learning aspirations and motivations vary from career development, personal interests and tourism to family relationships (Li, 2022). It is impractical to expect any education institution to provide a highly individualised curriculum and teaching approaches to meet the needs of such a diverse group of students. Online education is a practical and effective alternative that can afford the possibility of accommodating Chinese language

learners' diverse needs through various digital tools, and in particular, the pandemic further highlights the educational value of this option.

1.2.1 SCOLT project

As previously noted, given the challenges of language teaching in NZ, there is a need to provide personalised Chinese language teaching to complement formal Chinese language learning given the astonishing diversity in the student body. With the establishment of the Joint Research Centre in Applied Linguistics between Massey University (MU) and Beijing Language and Culture University (BLCU), one cooperative program, Synchronous Chinese Language Online Teaching (SCOLT), was launched in 2016 aiming to provide an option to supplement formal study. SCOLT brings together teachers and pre-service teachers from BLCU and distance learners from MU in one-to-one Chinese learning sessions. MU has over half a century of history in distance education. It provides students with various Chinese courses from beginner to advanced level, building on skills such as listening, speaking, reading, and writing in various teaching modes, such as Face-to-Face (F2F thereafter), and distance. BLCU specialises in teaching Chinese language and culture to international students and training teachers teaching Chinese as a foreign language (CFL thereafter). Over 50 years of development have made BLCU a multidisciplinary university specialising in language and culture education and research. As such, there is a strong emphasis on Chinese language teacher training at BLCU.

Given the mutual learning needs of tutors and learners, the SCOLT project was launched to provide NZ learners with opportunities to engage in authentic interactions via ZOOM with native-speaking trainee teachers on a one-on-one basis. Meanwhile, due to the essence of the reciprocal arrangement, this project aimed to provide the opportunity for trainee tutors to develop online teaching skills as well. Considering tutors' limited online teaching experience, the project leaders from MU and BLCU

provided a selective course, “Theory and Practice of Distance Chinese Teaching (汉语远程教学理论与实践)”, for tutors before they conducted SCOLT teaching practice. This course covered the features of the teaching platform, the principles of designing online learning tasks, some exemplar online language learning programs, the characteristics of SCOLT tutorials, and human ethics processes for relevant research. Tutors and learners were then matched and co-operated to carry out a series of five sessions with each session of 20 to 25 minutes (but many sessions have lasted over 25 minutes because of the enthusiasm of the participants).

Over the series of offerings of this project, several characteristics have come to light. First, as is typical of adult learners of Chinese, the NZ distance Chinese learners’ backgrounds vary greatly (Tasker, 2017; Wang & East, 2020). For example, some are caregivers, some are full-time students, and some are full-time employees. In addition, due to other obligations, life or study, many students cannot take classes at a scheduled time. These student differences are challenging for teachers, institutions, and researchers trying to meet their various needs and interests. Furthermore, students in a unified oral class organisation may have little time and limited chances to use the target language (Li, 2016). Therefore, there was an aspiration to provide students with more individualised, flexible, and learner-centred tutorials to enrich their Chinese learning processes.

Second, online teaching, in general, is still in a marginalised position (Li, 2020). Although BLCU has been developing and providing distance Chinese courses and creating online Chinese platforms and resources since the 1990s (F. Cao, 2012; Zheng, 2015), traditional F2F classroom teaching remains popular across educational settings. The outbreak of COVID-19 may have bolstered interest in online teaching, particularly studies on emergency remote teaching, but whether online teaching can be sustained and equally acknowledged, is in question. Given the advancement of digital technologies, online teaching has and will become one of the dominant delivery modes.

Student teachers are expected to develop not only theoretical understandings of second language acquisition, but more importantly knowledge and capacity in teaching practice. In response to the growing demands from the diversity of learners in online, offline, or hybridity of teaching, BLCU has furthered their development of online Chinese learning and teaching. Given most of these student teachers would consider becoming language teachers, particularly for teaching Chinese as an additional language, online teacher training and practice have come to the fore as part of the applied linguistics program at BLCU.

By April 2020, six rounds of the SCOLT project had been completed. WTCC had not been explored in the previous rounds of SCOLT (more details will be reported in Section 3.3). Focusing on interactions, I was interested in WTCC in support of fulfilling my curiosity as described earlier so that I could better understand my learners' needs that can benefit other teachers' professional learning and development. Given the focus in SCOLT sessions on interaction between participants, I felt it was timely to conduct a study to investigate learners' perceptions about their WTCC moment by moment during communication. Therefore, I decided to set up a new round of SCOLT sessions using the same model as had already been established, including students from the MU Chinese program (more details will be reported in Section 3.3), to conduct such a study, for which I use the term Synchronous Chinese Online Language Teaching-Willingness to Communicate in Chinese (SCOLT-WTCC) to emphasize the focus of the study and to differentiate it from general SCOLT practices. I also believe that my study could significantly contribute to SCOLT research in the present and the future.

1.3 Aims of the Study and Research Question

Based on my personal interest and the abovementioned research gaps, this study aims to:

- i. examine how learners engage in communication across different timescales with a particular focus on individual learner trajectories;
- ii. identify the factors accounting for periods of fluctuations and stability in learners' WTCC at these timescales;
- iii. explore the similarities and differences between tutors' and learners' perceptions of learners' WTCC under a dynamic, situated perspective.

These aims are addressed by combining research methods: the idiodynamic method, the experience sampling method, journal, Session-based WTCC scale, questionnaire video recordings of SCOLT-WTCC sessions. I wished to paint a holistic picture of how learners' communicative intention reflected in their behaviours was shaped by the temporal and spatial contexts of their here-and-now actions, and to examine the (dis)alignment of their tutors' perceptions of and learner's own perspective of their WTCC experience as they worked together. To pursue this rationale, the study addresses the following research questions:

- i. What are the general WTCC profiles of learners over the SCOLT program? How does learners' WTCC change and fluctuate during L2 communicative activities across different timescales?
- ii. How can WTCC be effectively measured / researched over an attenuated period and in multiple encounters?
- iii. How do teachers' and learners' perceptions of WTCC fluctuations align or diverge?

1.4 The Significance of the Study

The underlying impetus for this study is the need to contribute to an understanding of the nature of WTC in Chinese (WTCC) language learning among adult learners in the online environment. Theoretically, the application of Complex Dynamic Systems Theory (CDST) and the SCOLT model (see Section 3.3.1) were employed to ground the examination of the dynamic and complex nature of learners' WTCC at different timescales. This study drew from CDST with emphasis on embracing the complex interplay of psychological, linguistic, situational, and other factors that influence learners' WTCC. Methodologically, while I initially intended to gather information

about learners' WTCC only through the idiodynamic method and the Session-based WTCC scale, unexpectedly COVID-19 and practical issues of the idiodynamic software pushed me toward another dynamic method, the experience sampling method. It was hoped that the methodological diversification would support in obtaining a holistic understanding of learners' WTCC, to further demonstrate the interrelated nature of timescales concerning changes in WTCC.

Pedagogically, the present study will contribute to language teaching research by exploring learners' WTC in the context of online Chinese language learning and generating implications for online language teaching. Findings of this study will enhance Chinese language teachers' understanding of learners' communicative behaviour and intentions, and underlying factors behind the dynamics of WTCC in online contexts, factors which teachers can better scaffold and support learners' meaningful and effective communication in Chinese.

1.5 Outline of the Thesis

This thesis comprises ten chapters. Following this introduction chapter (Chapter 1), Chapters 2 and 3 provide a literature overview of L2 WTC research and relevant aspects of the synchronous computer-mediated communication setting. Chapter 2 reviews the evolution of L2 WTC conceptualization and relevant empirical studies in face-to-face situations. Chapter 3 focuses on the relevant literature on L2 WTC in the online language learning environment, the main areas of synchronous computer-mediated communication of interest in this study, and key literature on the SCOLT model and research.

Chapter 4 describes the methodology designed for the current study. It describes the research paradigm, approach and instruments, ethical considerations, and the research

designs which evolved from data collection procedures including a pilot study and the main study. The chapter concludes with data preparation and analysis.

Chapters 5 to 8 present the findings of this thesis, unpacking each study case. These chapters outline four individual learners' WTCC respectively, providing detailed information about how learners' communicative intention changed at different timescales and how their WTCC was perceived by their tutors.

Chapter 9 discusses the key findings across the four learner cases and the responses to the research questions proposed.

Chapter 10 draws a number of conclusions and implications alongside the theoretical, methodological and pedagogical contributions of this study. This is then followed by a discussion of the main limitations of this study and recommendations for future WTC studies.

Chapter 2 Willingness to Communicate

There are a range of theories about second language acquisition (SLA) that foreground the importance of interaction. Interaction brings language users together which gives them exposure to and use of the second language (L2), which is an important step for language learning. In order for interaction to be effective, it requires a degree of willingness on the part of both interlocutors to participate. Therefore, the literature review will begin with a discussion of different theoretical perspectives on interaction, and the role of WTC in bringing them to practical fruition. This chapter then reviews the general treatment of WTC in physical settings from sections 2.2 to 2.5, in which a historical perspective on the conceptualisations of WTC will be elaborated from sections 2.2 to 2.3, specific variables associated with L2 WTC from learners' perceptions and from teachers' perceptions will be respectively delineated in Sections 2.4 and 2.5.

2.1 The Status of Interaction as a Basis for L2 WTC Inquiry into It

To speak up or remain silent may be one of the most crucial decisions an L2 learner makes when an opportunity occurs to use L2. More and more SLA researchers and teachers claim the importance of interaction in L2 development and that taking up opportunities to engage in communication is essential to SLA (Mackey et al., 2013). The significance of communication in L2 has been demonstrated from numerous theoretical positions.

Early on, Krashen's (1977, 1980) influential Input Hypothesis posits that learners' SLA would naturally occur if they were exposed to comprehensible input, although the focus was on reception rather than interaction. Comprehensible input was defined as the input to be slightly beyond learners' current proficiency (namely, i) but still understandable by learners. This type of input, $i+1$, containing linguistic evidence can scaffold the new

language and support the listener/learner to learn the new language. It also claimed the importance of a “lower affective filter” referring to low levels of negative feelings associated with L2 learning. Krashen argued that in addition to the availability of $i+1$ for learners, they also need to be receptive to the input. Students who have a lower or weaker filter, such as low-level anxiety, could be more likely to seek comprehensible input and more open to the input. As well as promoting the importance of input, Krashen’s Affective Filter was a strong early claim about the importance of emotion in L2 learning.

A key claim of the Input Hypothesis is the proposal that ample naturalistic and meaning-oriented exposure to L2 will be sufficient to develop the target language. However, according to the Output Hypothesis (Swain, 1985, 1995), comprehensible input was necessary but not sufficient for producing while output was the driving force behind language acquisition for L2 development. In Swain’s opinion, more talk can provide more opportunities for learning; that is, to notice the linguistic forms, pay attention to the gaps between the target language and the learner’s interlanguage, test hypotheses concerning L2 in order to try out new language forms and examine how L2 works in meeting communicative needs (Swain, 2005; Swain & Lapkin, 1995).

Drawing upon the above research, the Interaction Hypothesis brought together both aspects, input and output, in a unified explanation of SLA. This assumes that when interaction between learners and native speakers (NSs), or more proficient language users breaks down, conversational modifications then occur. During the negotiation of meaning that results to solve them, learners’ target language develops (Long, 1985b, 1996). Long (1985b) argued that more interaction leads to more L2 development, as more comprehensible input is generated through simplification or modification under communicative conditions. In addition, learners are given more opportunities to modify their output by being provided with corrective feedback, negotiating meaning with the interlocutors. Therefore, the Interaction Hypothesis clearly points to the importance of

interaction that “connects input, internal learner capacities, particularly selective attention, and output in productive ways” (Long, 1996, p. 451), in which learners can internalise linguistic knowledge and facilitate the acquisition.

Long has brought attention to the importance of the negotiation of meaning and modification of interaction to L2 development (Long, 1985a; Long & Porter, 1985; Porter, 1986). In this way, input, interaction, and output are linked: input is made comprehensible through negotiation for meaning and output may be pushed to the outer limits of one’s current competence. Underlying the interaction hypothesis is the message model of communication, wherein the goal of conversational partners during a communicative event is the successful sending and receiving of linguistic tokens. That is message transmission and reception (Donato, 1994). Research on the role of interaction in SLA has accordingly sought to explain L2 learning and development in terms of the internal (i.e., inside the mind) psycholinguistic processes that are triggered in interactions, input-made comprehensible through interactional modifications – is processed by the mind/brain. Internal psycholinguistic functions then extract and generalize language patterns (Van Compernelle, 2015).

The development of a new language through the importance of dialogic interaction is also supported by Vygotsky’s sociocultural theory (SCT) (1978). Compared with the interaction hypothesis from a cognitive perspective, language learning in SCT is a social process, and the origination of human intelligence is sociocultural in nature. In Vygotsky’s view human cognitive development, including language development, results from interaction in social and inter-personal activity. Through mediation and appropriation, what comes from the social sphere is internalised within the individual or intra-personal functioning. Integrating active interaction into L2 learning, the learner is given opportunities to reach his/her potential to develop L2 language under guidance. Here the notion of potential in social interaction is highlighted and defined as a Zone of Proximal Development (ZPD). Vygotsky defined ZPD as:

The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978, p. 86)

Applying this notion to adult L2 learning, Poehner (2005) states that ZPD is not only a developmental process model but also a conceptual tool that educators can use to understand aspects of students' emerging capacities in the early stages of their learning. Lantolf suggested that the most effective social interaction happened in learners' ZPD as learners could stretch their interlanguage under the interlocutors' help and internalise the new language they are negotiating with. Thus, social interaction makes the internalisation of L2 possible (Lantolf, 2006).

If the interaction hypothesis can be critiqued for its limited view of cognition as occurring inside the head, so too can the SCT perspective for its heavily social orientation to learning and development. In order to avoid separating the internal from the external, there is a need for a unified approach that brings the internal-psychological and the external-social aspects together. To this end, this study turned to Complex Dynamic System Theory (CDST). CDST is an umbrella term involving chaos and complexity theory (Larsen-Freeman, 1997), complexity theory (Larsen-Freeman & Cameron, 2008a), and dynamic systems theory (de Bot et al., 2007), which advocates a complex and dynamic perspective on L2 learning. de Bot et al. (2007) argued that "language development shows some of the core characteristics of dynamic systems: sensitive dependence on initial conditions, complete interconnectedness of subsystems, the emergence of attractor states in development over time and variation both in and among individuals" (p. 7). In addition, de Bot et al. (2007) called for different approaches to research the dynamics of language learning, which allow for the inclusion of both the social and the cognitive, and the interaction between systems.

The importance of social interaction is also supported by CDST. Larsen-Freeman and Cameron (2008a) point out the complex, interconnected, dynamic natural relationship

between language learning and language use. Larsen-Freeman asserted, “It is not that you learn something and then you use it; neither is it that you use something and then you learn it. Instead, it is in the using that you learn – they are inseparable” (2007, p. 783). What is believed by Larsen-Freeman and Cameron (2008a) is that language learning and use occur simultaneously, suggesting that the act of using language changes the language resources of the learner/user, and the changed resources become potentially available for future language use. Therefore, there is a need to explore how the learner engages in a dynamic process of language usage to reveal their real-time language processing, developmental change in learner language, and evolutionary change in language. All of these need students to actively use target language as a resource for acquisition.

Even though this notion of the importance of social interaction for learners’ L2 development is widely accepted, many learners remain silent even after learning an L2 for years. Researchers and teachers find a major challenge in SLA is to engage students in communicating (Blake, 2016). Thus, it matters whether learners are willing to communicate or not. In the next section, I will discuss the concept of willingness to communicate by reviewing its evolution and relevant research.

2.2 Understanding the Nature of L2 WTC

The notion of WTC originated from the earlier work of Burgoon’s (1976) “unwillingness to communicate”, which was defined as “a chronic tendency to avoid and/or devalue oral communication” (p.60). McCroskey and his colleagues (McCroskey, 1992; McCroskey & Baer, 1985; McCroskey & Richmond, 1987) proposed the construct of “willingness to communicate” in the first language (L1) and defined L1 WTC as a trait-like predisposition which was conceptualized as “a variability in talking behaviour” which is “rooted in a personality variable” (McCroskey & Baer, 1985, p. 1). Thus, their research is on the factors affecting L1 WTC, such as

communication apprehension, perceived communicating competence etc., and the frequency of speech production according to the level of a speaker's WTC. Even though McCroskey admitted the impact of the situation on WTC, he and his associates had conceptualized WTC as a personality trait rather than as a situation-based variable (MacIntyre et al., 1998).

In one's L1, WTC is considered as a "global, personality-based orientation toward talking" (MacIntyre et al., 2003b, p. 591), reflecting a fairly stable personality trait on talking in various situations. However, the situation is less straightforward with regard to L2 use and L2 WTC is not the simple transference L1 WTC as there is more uncertainty and complexity in L2 use and greater variations in L2 acquisition (MacIntyre & Charos, 1996; MacIntyre et al., 1998). When the concept of WTC was first introduced by MacIntyre and Charos (1996) into SLA, they not only emphasised the impact of personal variables (e.g., motivation, anxiety) on L2 WTC, but also stressed the role of context.

Since then, L2 WTC has undergone several conceptualisations: from the creation of a heuristic model of L2 WTC (MacIntyre et al., 1998), L2 WTC possessed dual characteristics both a stable trait and a dynamic state variable. At the trait level, WTC is viewed as an enduring predisposition which remains stable across situations and over a long period, whereas at the state level, WTC may rise and fall rapidly because the focus is on the momentary volitional process of an L2 learner to choose to speak or not at the decision point (MacIntyre, 2007). However, the research that followed on from this early interest mainly focused on the trait-like nature of L2 WTC.

In response to this perceived research gap in L2 WTC research, Kang (2005) proposed a new model to emphasise the state-nature of L2 WTC based on her empirical study. Until 2011, the idiodynamic method (MacIntyre & Legatto, 2011) brought a dynamic turn to the research of L2 WTC. MacIntyre explained the stark contrast between trait

and state (dynamic) conceptualizations of L2 WTC which might arise from the methodological choices made by researchers to study the nature of L2 WTC. Therefore, there is a need to present the major conceptual and methodological developments in L2 WTC research first to better understand the nature of L2 WTC.

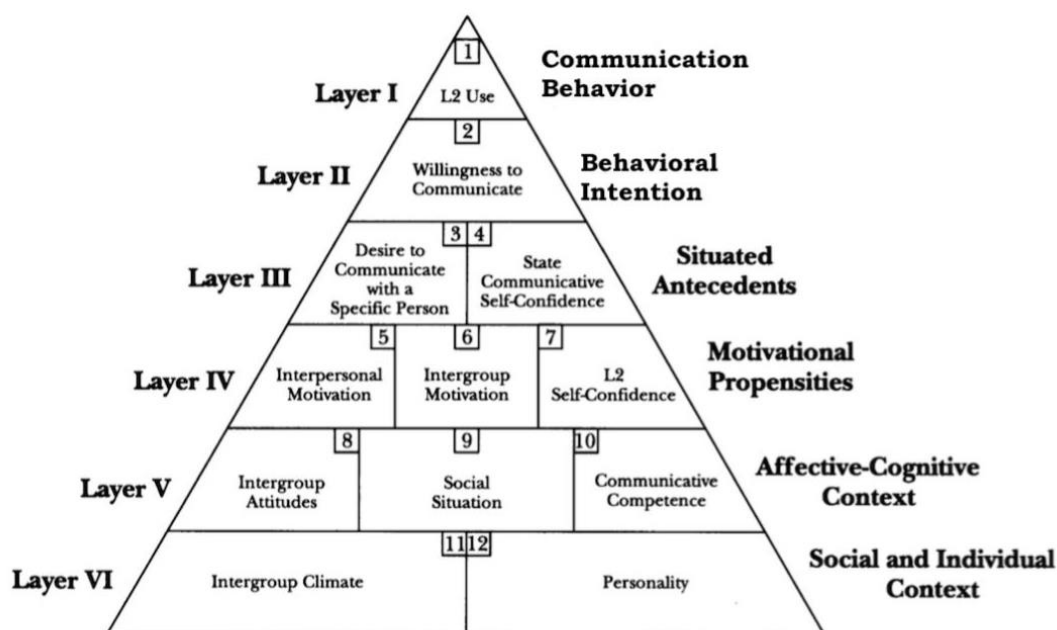
2.2.1 MacIntyre et al.'s (1998) L2 WTC model

As L2 researchers began to pay attention to WTC, they posited that the situational aspect of WTC was more important in L2 than in L1. MacIntyre and his colleagues (1998) took the L2 context into account and extended the conceptualization of L2 WTC as “a readiness to enter into discourse at a particular time with a specific person or persons, using L2” (p. 547), rather than limiting it to a personality trait in L1. MacIntyre et al. (1998) regarded L2 WTC as a “situational variable with both transient and enduring influences” (p. 546) and proposed a heuristic model that represents how various state (or situated) and trait (or enduring) variables interact and converge as L2 behavioural intention, WTC (see Figure 2.1 below).

According to a proximal-distal continuum, this pyramid model of six layers represents the proximity of impact of various variables on the top layer, L2 use. Starting at the foundation of the pyramid, the bottom three layers are motivational propensities (Layer IV), the affective-cognitive context (Layer V), and the social and individual context (Layer VI), representing trait-like variables and showing they are more enduring, stable and not easily changeable in influencing L2 communication (i.e., *Intergroup Climate and Personality*). Intergroup Layer V incorporates *intergroup attitudes, social situation* (e.g., formal/informal, peer/stranger), and *communication competence*. Layer IV encompasses three aspects, including *interpersonal* and *intergroup* motivation, and *self-confidence* (perceptions of communicative competence coupled with low-level anxiety).

Figure 2.1

Heuristic model of variables influencing WTC (MacIntyre et al., 1998, p. 547)



The focus of the top three layers (communication behaviour, behavioural intention, and situated antecedents) is more on the here and now, transitioning from enduring factors to dynamic situational ones. Layer III contains the *desire to communicate with a specific person* and a *state of self-confidence* which is momentary and situation-specific compared with a learner's self-confidence (Layer IV), referring to overall belief in their master of L2 communication. It is necessary to make a distinction between *perceived communicative competence* and *communicative competence* (Layer V). The former is a state-like variable and is determined by the perception of a learner in a specific situation at a particular time, whereas the latter is a trait variable which is an individual's actual ability in L2 conversation. The difference between actual and perceived communicative competence implies a further layer of mediating factors between having the competence to communicate and putting this competence into practice, or more generally, how to become an L2 user from an L2 learner. Layer II, the most proximal factor, represents the final psychological step in preparation for L2 communication (MacIntyre, 2007), and the authors suggested that WTC strongly implies a behaviour. The first layer of

communication behaviour, Layer I, refers to a broad sense of L2 use, which can be viewed as the result of complex dynamic situational and stable factors.

The creation of the model extended the conceptualization of WTC beyond viewing it as the inherent tendency to engage in communication and integrated over 30 factors ranging from psychological, contextual, linguistic, educational, and communicative dimensions that may potentially influence L2 WTC. On the one hand, from the top three layers of this model, WTC was conceptualized as an emergent state of mind that reflects dynamic fluctuations in the situation as well as within the learner self (MacIntyre & Legatto, 2011). On the other hand, from the bottom three layers, this model reinforces the conceptualizations of WTC as a trait-like construct and thus an ultimate goal of language learning.

Although the L2 model draws together a host of variables that have been well established as influences on L2 use (Dörnyei, 2005), as MacIntyre et al. (2003b) acknowledged, this model did not adequately describe the interrelationship between the various factors, as the transition from distal to proximal impacts is also not a simple hierarchy shown in the model. Second, despite L2 WTC being considered as both a state and a trait-like construct in the model, it “did not address the measurement of state WTC and was silent on how it fluctuates over time” (MacIntyre, 2020, p. 120). Thus, the early empirical studies based on MacIntyre et al.’s (1998) model aimed to measure trait-like L2 WTC.

Taking MacIntyre’s (2020) concern into account, there now are several measures of trait-like L2 WTC available (Ayers-Glassey & MacIntyre, 2019). The original L1 WTC scale (McCroskey & Richmond, 1991) aimed to measure WTC level in response to specific situations (e.g., small group) crossed with respondents (e.g., friends). It was adapted to L2 WTC with some modifications changing the language referenced in the instructions, for example, Chinese as an L2 (Liu & Jackson, 2009). In addition, two

parallel scales assessing L2 WTC inside and outside the language classroom were developed to tap L2 in speaking, writing, comprehension, and reading skills (MacIntyre et al., 2001). Beyond that, Weaver (2007) developed a classroom-oriented scale to measure a combination of speaking and writing WTC, for example, “greet someone in English”. Mystkowska-Wiertelak and Pawlak (2016) recently developed a new scale in the Polish context to measure L2 WTC. Importantly, this scale included the online environment, for example, “use computer-mediated communication (CMC) to address acquaintances as well as strangers”.

The trait-like measures of WTC allow research to proceed in various contexts, where the research questions should guide the choice of measurement scales. Studies focusing solely on WTC measurements are uncommon (Cameron, 2020, p. 21). Instead, the reasons affecting L2 WTC are addressed. Therefore, an L2 WTC scale is administered with scales to measure other elements, such as perceived communicative competence, communication anxiety, and motivation (Cetinkaya, 2005; Hashimoto, 2002; MacIntyre & Charos, 1996). In one of the few studies of WTC for learners of Chinese, Liu (2017) collected data by using questionnaires, including, the Willingness to Communicate in Chinese Scale, the Intercultural Sensitivity Scale, Chinese Speaking Anxiety Scale, Chinese Learning Motivation Scale, Use of Chinese Profile. She found Chinese as a second language learners' willingness to communicate in Chinese is negatively correlated with Chinese speaking anxiety but positively correlated with length of stay in China.

These findings have, without doubt, contributed to understanding how L2 WTC differs across individuals and situations. Through quantitative methods and questionnaire measures of L2 WTC, trait-like WTC can be predicated across situations, and it is helpful to identify stable variables among individuals' underlying L2 WTC. However, studies adopting a linear perspective on L2 WTC can tell us very little about particular students sitting in the classroom, at home, or in the self-access centre, about why they

choose to initiate or avoid communication. Therefore, additional insight is needed to explain why one's WTC is high or low and how it fluctuates from moment to moment.

2.2.2 Kang's (2005) situational WTC model

MacIntyre et al. (1998) considered the pyramid model (see Figure 2.1) as a starting point to encourage researchers to explore the nature of L2 WTC. Instead of using questionnaires followed by quantitative analysis in the studies on trait-like L2 WTC as mentioned above, Kang (2005) shifted her focus to examine situational L2 WTC from a qualitative perspective. She adopted semi-structured and stimulated recall interviews to explore L2 WTC of four Korean university learners who participated in video-recorded conversations with a partner over eight weeks. The study found that situational variables (interlocutors, topic, and conversational context) interacted with psychological variables (security, excitement, and responsibility), impacting the fluctuations of L2 WTC not only from situation to situation, but also from moment-to-moment within a conversation (see Figure 2.2).

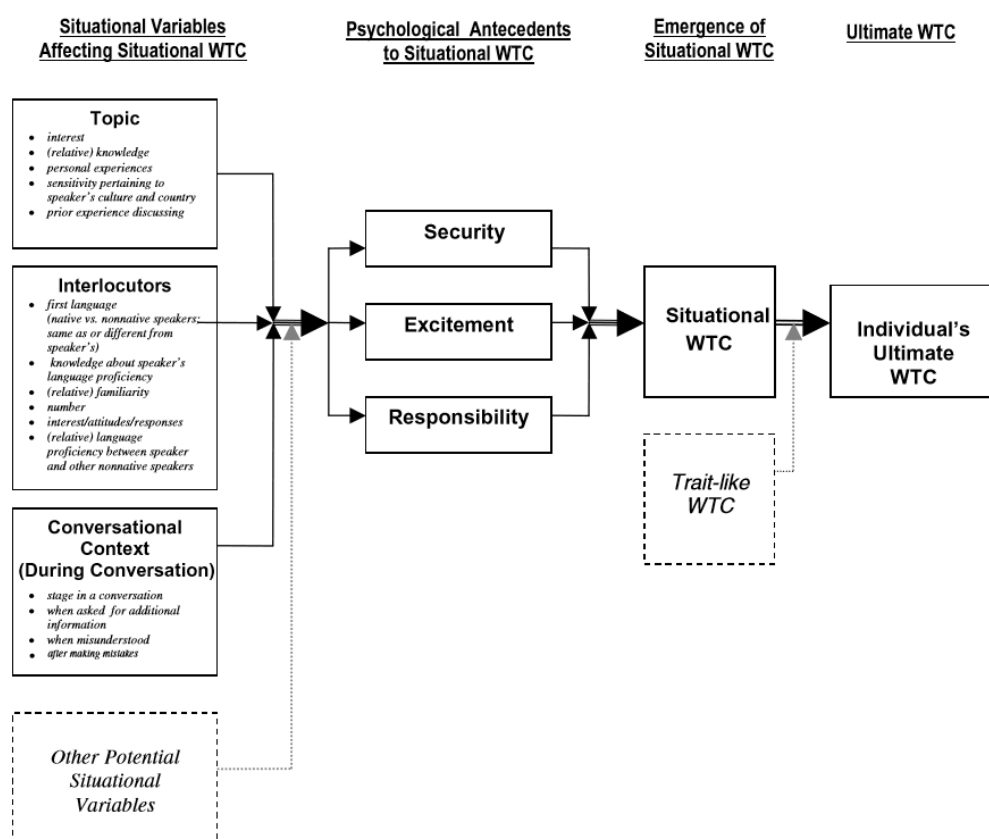
Based on the results of her empirical study, Kang (2005) proposed a model in which the underlying situation variables affecting L2 learners' state WTC are indicated as security, excitement, and responsibility. Each of these situational variables is influenced by various psychological factors related to the topic, interlocutors, and conversational context. Kang's model undoubtedly displayed a dynamic, non-linear relation between underlying factors impacting L2 WTC. In the end, Kang (2005) defines L2 WTC as "an individual's volitional inclination towards actively engaging in the act of communication in a specific situation, which can vary according to interlocutor(s), topic, and conversational context, among other potential situational variables" (p. 291).

Inspired by Kang's (2005) study, a number of studies adopted ecological and sociocultural approaches to explore the underlying variables and interrelations among multiple variables that affect L2 WTC (Cameron, 2020; Cao, 2009; Peng, 2014;

Suksawas, 2011). L2 WTC in these studies has been seen essentially as a process rather than a product. Additionally, they used a variety of qualitative or mixed methods, such as classroom observations, interviews, and journals, to investigate the factors affecting L2 WTC rather than relying solely on quantitative methods and surveys. For example, Cao and Philp (2006) combined a trait-like WTC questionnaire (McCroskey & Richmond, 1991) and a classroom observation scheme consisting of observable communication behaviour (e.g., asking the teacher a question, volunteering an answer), supplemented by interviews with eight participants.

Figure 2.2

Kang's (2005) situational willingness to communicate (WTC) model



A number of factors were found to influence WTC behaviour in class, including self-confidence, group size, familiarity with interlocutors, and interlocutor participation. To explore underlying factors of WTC behaviour in the classroom setting, Cao, in her later series of studies (Cao, 2011; Y. Cao, 2012; Cao, 2013, 2014), mostly combined

classroom observations based on a WTC behaviour scheme to calculate the frequency of self-initiated communication and follow-up interviews. These studies found the dynamic WTC in L2 classrooms emerged from the joint effects of individual characteristics, environmental conditions, and linguistic factors.

MacIntyre et al. (2011) used a focused essay technique in which “a respondent is asked to write a few lines about a specific event in some detail” (MacIntyre, 2007, p. 570) which is also called “a structured diary” (MacIntyre & Ayers-Glassey, 2020, p. 190). In the study by MacIntyre et al. (2011), French immersion students (N=100) aged between 12 and 14 years old were asked to write about the situations in which they were most willing or unwilling to communicate in L2. They found how subtle differences in specific situations can quickly change a learner’s WTC by conducting qualitative analyses of students’ self-report. More surprisingly, their results demonstrated no clear difference between situations creating WTC and UnWTC, which revealed ambivalent states of mind. Therefore, they proposed that future studies should explore the concept of ambivalence by asking participants more directly about moments when they are simultaneously willing and unwilling to communicate.

Adopting the same method, Zarrinabadi (2014) asked 50 undergraduate students (18–24 years of age) to write focused essays over a six-week period. In the focused essay, students provided the details of situations in which they communicated with their teacher in English, including the place where the conversation took place (classroom, university, etc.), and how they felt about the experience. This study sought to investigate how the teacher influenced students’ L2 WTC. The focused essay technique, as one important qualitative instrument, provides an insightful way to explore the situational characteristics of L2 WTC (Zarrinabadi, 2014). However, due to its incapability of measuring the typicality of experiences or the frequency of L2 communication, Zarrinabadi (2014) called for future studies triangulating different methods to render the nature of L2 WTC.

What can be clearly seen is the growth of qualitative and mixed-method studies of L2 WTC concerning the subtle interactions among learners' features and relevant contextual factors. Researchers have recognised the need to address the situational and dynamic aspects of WTC. This has been accompanied by a methodological shift from a quantitative to a mixed-methods approach. A call for more qualitative tools, including stimulated recall, observations, interviews, journals, and so on, to be applied to the investigation of L2 WTC has enabled a more fine-grained lens to be brought to the language learning process.

However, MacIntyre et al. (2019) pointed out that the conceptual position that some authors (Cao & Philp, 2006; Kang, 2005) considered trait and state (dynamic) conceptualizations of WTC to be antithetical is not tenable. Instead, "it is best to consider the state-dependent and dynamic fluctuations of WTC as a topic that is complementary to (rather than in opposition to) the stable trait-like tendencies" (MacIntyre & Doucette, 2010, p. 169). From a measurement perspective, however, how a researcher concentrates on the sometimes subtle causes for changes in WTC when trait scales typically measure its stability remains unanswered (MacIntyre & Ayers-Glassey, 2020). Consequently, MacIntyre and his associates turned to CDST which brought a new turn in research and conducted a new methodology — the idiodynamic method — to focus on the dynamic moment-to-moment state of WTC.

2.3 Dynamic Turn Challenges: Complex and Dynamic Systems

Although the studies using qualitative or mixed methods acknowledge the role of psychological and contextual factors in the emergence of L2 WTC, MacIntyre and Legatto (2011) acknowledged that devices and methodology to measure the moment-by-moment dynamic changes in L2 WTC were still lacking. With a noticeably growing body of literature on CDST and researchers widely accepting the proposals for a dynamic paradigm shift in SLA by the end of the 2010s (Dörnyei et al., 2014), many

researchers (Dörnyei, 2005; MacIntyre, 2007) have seen the need for more empirical research into temporal fluctuations in L2 WTC and its underlying interrelationships between variables. As MacIntyre (2007, p. 573) put it, “if we examine the process of creating a WTC at a specific time with a specific person, we see a fascinating, complex process”, calling for new methodologies that can more accurately measure the level of WTC moment by moment. MacIntyre and Legatto (2011) brought this need into reality by using innovative approaches to measuring changes in WTC in real time by CDST, which can be considered a dynamic turn in the research of L2 WTC (Yashima et al., 2018).

2.3.1 WTC as a complex dynamic system

In a pioneering application of the CDST framework to L2 WTC research, MacIntyre and Legatto (2011) developed the idiodynamic method (see Section 2.3.3) to demonstrate the dynamics of WTC over a few minutes during a prescribed task performance at the individual level. They argued that L2 WTC, if treated as a complex dynamic system, possesses four basic characteristics that de Bot et al. (2007) identified as follows.

First, variability is the cornerstone of researching the dynamic nature of complex systems in CDST. Dynamic systems fluctuate over time such that each state is a transformation of a previous state in a continuous chain. In other words, as people communicate with each other, interpreting verbal and nonverbal cues, WTC can potentially change at any moment. Additionally, it is noteworthy that change in L2 WTC occurs at and across multiple timescales, such as seconds, minutes, days, weeks, years etc. To get the full picture of L2 WTC, data should be collected from different timescales as Larsen-Freeman and Cameron (2008a) argued that a CDST perspective:

highlights connections across levels of human and social organization, from individual minds up to the social-political context of language learning, and across time scales from minute by minute of classroom activity to teaching and learning lifetimes (p. 198).

Second, dynamic systems have complete interconnectedness. That is, the components of a system are linked together and influence each other producing their pattern of behaviour over time (Meadows, 2008). Complex dynamic systems are open and multiply determined by interacting processes internal and external to the system that operates on multiple timescales (MacIntyre, 2020). Applying the theoretical metaphor, L2 WTC can be conceived as a complex system in which different variables, internal and external to the language learner, interact and adapt to each other in the emergence of L2 WTC across timescales and spaces. It is also important to consider how the various influences combine at a given moment to give rise to new system patterns, in particular, identifying its signature dynamics (Dörnyei, 2014). Signature dynamics refers to the main underlying dynamic patterns that produce the typical system outcomes over time. MacIntyre and Wang (2021) argued that “by identifying the most relevant influences on WTC, its signature dynamics, we can gain a more sophisticated understanding of the state space of communication and patterns of change in WTC as the conversation unfolds” (p. 5).

Third, dynamic systems are self-organising into preferred states (attractor states) and states that will not be preferred (repeller states). Change is to be expected, even from preferred states, as variables affecting the system change over time. Occasionally, a system settles into an attractor, defined as a “state the systems prefer to be in over other states at a particular point in time” (de Bot & Larsen-Freeman, 2011, p. 14). According to Van Geert (2007), attractors are neither necessarily desirable nor permanent and may be insensitive to small perturbations. Sometimes, these perturbations are strong enough to possibly push the system out of an attractor and represent “unstable equilibria of the system” (Vallacher & Nowak, 2009, p. 395). Regarding L2 WTC, for example, a teacher’s consistent provision of feedback on a particular grammar structure (an external factor) may lead to an attractor of avoidance of using the structure among

students due to fear of making mistakes. Even if a student's sound preparation to try out this structure (an internal factor) may trigger their WTC temporarily, the fear of making mistakes may hinder their intention to communicate as an overall lack of WTC may also be the attractor states (Nematizadeh, 2021).

Fourth, the systems possess non-linearity or threshold effects (sometimes called the butterfly effect). That is, a system, in this case, L2 WTC, is sensitive to initial conditions, defined as the psychological and/or physical state of a learner before and/or at the time of entering the class (Verspoor, 2014). Small changes in one part of the system may have large effects on L2 WTC, whereas significant variability in one part may result in only a small fluctuation in L2 WTC.

CDST, as a meta-theory, expands our understanding of the dynamics of L2 WTC. It pushes L2 WTC forward by approaching L2 WTC by viewing it as a complex dynamic system that evolves over time depending on the interaction of underlying variables. In the next section, I will review empirical studies that have used CDST as the background for their investigations of the fluctuations of WTC over time.

2.3.2 Empirical studies drawing on CDST

As one of the first studies that made an important contribution to shedding light on CDST to investigate L2 WTC, MacIntyre and Legatto (2011) developed an idiodynamic method. The term brings together two parts, *idio*, referring to a focus on the individual, and *dynamic*, to fluctuations, to capture the nature of communication events in which the L2 WTC of a single learner possibly fluctuates. It uses specially designed software created to enable a learner to play a recording of an interaction event of a few minutes duration they participated in, and collect ratings on a per-second basis of their perception of their WTC. In MacIntyre and Legatto's study, students (N=6) were asked to perform eight tasks, from easy to difficult, all tasks within five minutes, followed immediately by watching their video recordings and providing self-reported

ratings on their L2 WTC. After that, students were shown the video again with a graph of their WTC ratings and provided an explanation for changes in the ratings in a stimulated recall interview. Both the original communication event and the interview were then transcribed for further analysis.

MacIntyre and Legatto's (2011) study showed that each participant exhibited a unique development trajectory. It confirmed L2 WTC is a dynamic system and changes from moment to moment. All participants' ratings of their WTC changed consistently, demonstrating how each state was transformed from a previous state; that is, how a system was perturbed and self-organised into another attractor state. WTC can settle into an attractor state when linguistic, social, cognitive, and emotional systems function well together. In contrast, interference, such as struggling to retrieve vocabulary, could cause a repeller state and result in an interlocutor's abandonment of the task. Furthermore, the data indicated the property of interconnectedness of dynamic systems between the linguistic, affect, cognition, and social factors influencing L2 WTC within the dynamic systems. More specifically, when participants failed to perform to their satisfaction cognitively (e.g., vocabulary retrieval) or linguistically (e.g., producing understandable pronunciation), they sometimes opted out of future communication situations, illustrating an interplay between cognition and linguistic factors.

MacIntyre and Legatto's (2011) study, using specific idiodynamic software to chart their participants' WTC under experimental conditions, stimulated a number of recent CDST-informed studies on the dynamic nature of L2 WTC over short intervals of time (Fink, 2013; Mulvaney, 2016; Nematizadeh, 2021; Wang, 2019; Wood, 2016). For example, Fink (2013) employed the idiodynamic method to study the micro-scale dynamics of WTC over the course of a speaking activity in pairs and the underlying interaction of elements involved in the emergence of a given state. From the idiodynamic response data, Fink (2013) concluded that WTC did indeed change during the activity in terms of the frequency of the fluctuations and their intensity. As reasons

for changes in WTC reported in the stimulated recall interview: difficulty in retrieving vocabulary and the topics were two main reasons, combined with the abundance of elements identified as context-specific factors which interacted to form the conditions of the system at any given time. More importantly, Fink (2013) compared the individual students' WTC ratings as the speaking was done in pairs. The results showed that there were no clear overlaps or interactions but a loose overall pattern between members of the same pair in their output graphs. Students' discussion indeed showed overlapping and interrelated WTC ratings in some situations. But in other situations, their WTC ratings hardly revealed any interactions or similarities.

Wang (2019) had six learners form three groups in pairs to complete six tasks in English. Wang adopted the idiodynamic method after each task to reveal rapid fluctuations in the dynamic L2 WTC system using a per-second timescale, and used a 0-100 WTC scale indicating the level of participants' L2 WTC after each task. It appeared that students' WTC remained relatively stable on a task-to-task basis, but within each task, individual participants' WTC constantly changed on a per-second basis and demonstrated unique trajectory development from an idiodynamic perspective. Other idiodynamic studies have examined the correlation between WTC and anxiety at the individual level (MacIntyre & Gregersen, 2022) and the fluid relationship between WTC and L2 fluency (Nematizadeh, 2021; Nematizadeh & Wood, 2019; Wood, 2016).

There are some variants of idiodynamic studies using paper-and-pencil measurements rather than idiodynamic software to investigate the dynamics of L2 WTC (Lee & Liu, 2022; Sato, 2019, 2020; Shimoyama, 2013), in which normally participants were asked to watch the video recordings, and meanwhile, rate their WTC every minute on a paper or Excel sheet. A few recent studies (Ducker, 2021, 2022; MacIntyre & Wang, 2021) have started to use an updated version of idiodynamic software developed by Ducker (2020), the new version of software to measure participants' WTC. MacIntyre and Wang (2021), for example, asked three participants to describe a self-selected,

personally meaningful photo. Idiodynamic data showed how L2 WTC fluctuated moment-by-moment due to the interplay of motivations and emotions under discussion.

The idiodynamic method allows researchers to track the quantitative ratings of L2 WTC over time, by which they were able to identify moments of change in WTC. The addition of qualitative and observational data helps to detect interplay among various variables occurring at the exact time of participants' decisions to initiate or avoid communication. However, idiodynamic studies are typically experimental, conducted in a controlled lab setting rather than situated in a more natural and evolving condition, such as a classroom environment.

Therefore, a more naturalistic measurement method, the experiencing sampling method (ESM), which has been used to understand behaviour and experiences occurring naturally in day-to-day life (Hektner et al., 2007), has also been adopted for WTC studies. A group of Polish researchers situated their enquiry in the language classroom using ESM to examine moment-by-moment WTC fluctuations in L2 classroom contexts (Mystkowska-Wiertelak, 2016, 2021; Mystkowska-Wiertelak & Pawlak, 2017; Pawlak et al., 2016). In these studies, students indicated the level of WTC ranging from -10 (extreme unwillingness) to +10 (extreme willingness) on a specifically designed grid in response to a “beep” that occurred at five-minute intervals during class.

For example, Pawlak et al. (2016) adopted ESM by asking their participants (N=60) to rate their WTC every five minutes during class and then make immediate reports (i.e. questionnaires including closed and open-ended items). The analysis showed that WTC was indeed in a state of flux, being influenced by such variables as the topic, planning time, cooperation and familiarity with the interlocutor and a host of individual variables. In her case study, Mystkowska-Wiertelak (2021) employed ESM, supported by qualitative data gathered from detailed lesson plans, an in-class WTC survey and an interview, to examine one student's changes in WTC during a semester-long course.

The results show that dynamic shifts in WTC intensity were revealed at different timescales, during single tasks and activities, individual classes, and the whole semester. The author argued that although individual learner profiles are hardly controllable, many contextual influences can be shaped by the teacher, such as motivating and invigorating warm-up activities, and allowing students to prepare for a speaking activity and to revise words.

Although these ESM studies showed the dynamic nature of WTC in the classroom, where learners interact in meaningful ways, the procedure may be somewhat intrusive. Asking students to self-report their WTC every five minutes is somewhat disruptive and gets in the way of the task being performed (Pawlak et al., 2016). Another drawback is that lacking a per-second-based self-rate might not reveal the key points or moments when the learner's WTC changes, let alone the possibility that participants might not have been candid in their indications.

With similar acknowledgement of the principles of CDST, a few longitudinal studies have examined the fluctuations of WTC over a prolonged period, i.e., Cameron (2020) for 18 months, Syed (2016) for ten weeks, and Yue (2016) for 15 weeks. For instance, realising the need to widen the scope of the inquiry to include out-of-class WTC, Cameron (2020) combined CDST and ecological approaches to conducting a longitudinal case study of 10 Iranian adult immigrant students, aiming to investigate their L2 WTC in New Zealand. This doctoral study by Cameron (2020) employed classroom observations, questionnaires, stimulated recalls and semi-structured interviews. She observed that the fluctuations of these adult immigrant students' WTC occurred at different levels (i.e., micro-, meso-, exo-, and macro-) and their WTC was influenced by past learning experiences on their WTC, as well as the geographical contextual change from Iran to NZ, and students' progression of L2 WTC from one academic semester to another semester over 18 months.

As Larsen-Freeman and Cameron suggest, CDST “relates well and therefore embraces ecological approaches that adopt an analogy between complex ecological systems and human language using/learning systems “ (Larsen-Freeman & Cameron, 2008a, p. 201). From the ecological perspective (van Lier, 2004), students, teachers and their surrounding micro classroom contexts and macro institutional environments are interconnected and intricately weaved into a web of relationships. Cameron’s (2020) longitudinal study on factors influencing learners’ WTC in and outside the classroom revealed that L2 WTC develops over time based on the connection between CDST and ecological theory. The classification of ecosystems into different levels and the focus on interconnectedness tell us how macro-, exo- and meso-layers influence individual learners’ L2 development. That is, the components historically internal to the person actively contribute to shaping L2 WTC in here-and-now communication behaviours.

However, much of the focus has been on the macro-level, socio-cultural and socio-economic facets, which may in a way overlook learners’ intention to communicate action in situ, let alone if the learners’ classroom behaviour affects their socio-economic and cultural behaviour. Yashima et al. (2016) and Yashima et al. (2018) investigated both trait and state characteristics of WTC in a classroom context using a complex research design. They used questionnaires to measure trait WTC, and for the measurement of state WTC, they used observation to account for the number of self-selected turns. Within a nested-system framework, both studies paid attention to the communication behaviour of individuals as well as that of the group. Both studies showed that learners L2 WTC changed concurrently on two timescales, that is, over the semester and from moment to moment within the group discussion. The researchers also explained that the fluctuations in L2 WTC were due to the interaction of both stable characteristics (such as personality) and contextual factors (e.g., interlocutor response and classroom interactional patterns).

Timescales essential to a CDST approach design (de Bot, 2014), are defined through

the methodology used to obtain data on specific behaviour. For instance, “A longitudinal study that takes place over a two-year window with monthly observations may take place on the month timescale, and the year timescale, and all timescales between them (half year, two months and so on)” (de Bot, 2014, p. 31). To assess the dynamics of WTC in, for example, a 20-minute conversation, a researcher can specify a time frame, the second timescale, or the minute timescale. The idiodynamic method and ESM have been two common effective approaches to capture the dynamics of L2 WTC. Therefore, I will compare and contrast these two applications and how they operate on different timescales, as that was important to the present study.

2.3.3 Idiodynamic method and ESM

The idiodynamic method and experience sampling method (ESM), as dynamic approaches, aim to identify complex intra-individual behaviour, affective states and changes in self-perception of oneself over time and within contexts (Conner et al., 2007), rather than to identify group-level traits (nomothetic). The idiodynamic method, developed by MacIntyre and Legatto (2011), is a mixed-methods approach that generates quantitative self-ratings of affective states (e.g., anxiety, enjoyment, motivation) made by a participant or an observer (such as an expert or a peer) that can be intertwined and connected with the qualitative interview data. Table 2.1 presents four steps that are generally agreed to apply to the idiodynamic method.

Table 2.1

The basic elements of the idiodynamic method (Gregersen & MacIntyre, 2017, p. 43)

General procedure	Example
1. An event is recorded on video	1. A practice teaching session is recorded
2. As soon after the event as possible, it is viewed and rated on whatever facet or assessment is relevant, producing a continuous graph of the idiodynamic ratings	2. Either alone or in the presence of a mentor, the practice teaching video is watched by the student-teacher who rates his or her 'effectiveness' throughout the lesson. Mentors may or may not decide to produce their own set of ratings, independent of the student-teacher, for comparison purposes
3. The graph is used by an interviewer who examines the video and the ratings to achieve a specific goal	3. With the printout in hand, the interviewer/mentor reviews the video, using changes in the graph, in particular its high and low points, as a moment on which to focus the interview
4. The interview can be recorded and transcribed or viewed later for further analysis	4. The student-teacher can watch both the original teaching session and the mentor's interview at a later time, as a way to reflect on progress made

In addition to being used in examining topics such as WTC among L2 French speakers in an oral interview setting (MacIntyre & Legatto, 2011), the idiodynamic method has been employed for other factors: language anxiety among six Spanish learners of English (Gregersen et al., 2014), fluctuations in self-perception nested within longer-term changes in language development (Mercer, 2014), emotional intelligence among pre-service teachers in a teaching practice environment (Gregersen & MacIntyre, 2017), changes of language fluency (Wood, 2016), motivations during task performance (MacIntyre & Serroul, 2014), the situated use of language learning strategies in peer to peer conversations (Ducker, 2021), and other topics.

ESM, coined by Csikszentmihalyi and Larson (1983), refers to a particular technique whereby participants report on their experiences in response to a random signalling device like a pager. In this method, data are collected through repeated measurements of participants' behaviour or feelings every time a certain event occurs (event-based sampling), or a signal is received indicating a requirement to record a response (signal-based sampling) (Larson & Csikszentmihalyi, 2014). There are two great strengths of ESM. First, its immediacy and high ecological validity increase the reliability and accuracy of the collected data. ESM measures actual rather than recalled experience in natural contexts and provides a better measurement of situation-specific behaviour.

Second, data are collected repeatedly thus shedding light on the dynamics of behaviour in real-world settings (Arndt et al., 2021). In the field of applied linguistics, ESM has been used to study the topics of motivation (Gardner et al., 2004; Waninge et al., 2014), the dynamics of enjoyment (Elahi Shirvan et al., 2020), the dynamics of self (Mercer, 2014), WTC (Mystkowska-Wiertelak, 2016, 2021; Pawlak & Mystkowska-Wiertelak, 2015; Pawlak et al., 2016), the relationship between WTC, anxiety, and enjoyment (Khajavy et al., 2021).

Idiodynamic and ESM methods can generate data that meet the criteria for studying dynamic systems, including having a density of data points and capturing longitudinal dynamics of within-person change over a defined time span. They both provide researchers with multiple snapshots of individual situated experiences over time, as opposed to approaches based on identifying group-level traits, as is the case with standard nomothetic approaches. As both methods share many characteristics in researching the dynamics of participants' behaviour, some researchers have taken ESM as a variant of the idiodynamic method (MacIntyre & Ducker, 2022; Wang, 2019).

However, it is worth noting that they are two different dynamic methods that operate slightly differently in the existing SLA empirical research (see Table 2.2). First, the assessment of experiences using idiodynamic method occurs after a specific event relying on the video/audio recording of the event. ESM happens in real time, which means close to the occurrences of the experience being reported without relying on the video/audio recording. Second, the idiodynamic method uses the per-second timescale to assess rapidly changing affective states through specified software. In contrast, ESM uses prompts spaced at 5-minute intervals, or less, for example, 30-second (Pawlak & Mystkowska-Wiertelak, 2015) or 2.5 minutes (Waninge et al., 2014) depending on the length of the activity.

Table 2.2

The differences between idiodynamic method and ESM in SLA empirical research

	Idiodynamic method	ESM
Context	Laboratory	Fieldwork or classroom
Timescale interval	Every second	Every 30 seconds /2.5 minutes /5 minutes
Data collection	After task	During task
Number of measure variables	Measuring only one variable at a time	Several variables can be measured at a time
The length of an activity	5-10 minutes ideally	No limitation

In addition, the methods have their own methodological challenges as they lend themselves to different data collection contexts. ESM is typically employed in fieldwork where data collection interrupts the flow of the ongoing event. By contrast, the idiodynamic method is typically used in laboratory or one-on-one conversation contexts, which may differ from regularly occurring activity, where it does not influence naturally occurring behaviour.

Mercer (2014) was the first to apply a time-based sampling scheme combining the idiodynamic method, ESM, journals, and interviews to study the dynamism of different facets of the self across different timescales. The data on four different timescales were obtained from different methods including idiodynamic data (second-by-second), ESM data (minute-by-minute), journal data (weekly), and interviews (monthly). She highlighted the nature of each learner's self-system, not only in terms of its composition and structure, suggesting conceptualisation of self but also in terms of its key drivers of change. The research design in Mercer's study was carried on by Elahi Shirvan et al. (2020), who used open-ended interviews across months, diaries across weeks, enjoyment-meters across minutes, and the idiodynamic approach across seconds to explore the participants' moments of experiencing enjoyment. Both studies illustrated the potential of CDST in generating exciting insights into self and enjoyment dynamics in different layers of timescales.

As Mercer (2014) argued, "any research on self dynamics needs to consider what type of construct is being looked at, how closely it is connected to what types of context and what the timespan is across which it typically functions" (p.140). Regarding the

dynamics of L2 WTC, it is likely to display different degrees or forms of dynamism depending on how L2 WTC is understood and the timescales across which L2 WTC functions. Thus far, there have been no studies combining the idiodynamic method and ESM to investigate the dynamics of WTC at different timescales. In light of this research gap and in order to further this line of research, this study aims to combine the two dynamic methods to investigate fluctuating levels of WTCC in an online class across different timescales.

I have reviewed the conceptualisations of trait and state-like WTC based on different methods, including questionnaires, interviews, journals, observation, idiodynamic method, and ESM, with a focus on measurements of WTC. In order to gain a broader understanding of why learners feel moved to or reluctant to communicate, the variables affecting their WTC should also be examined (Cameron, 2020). In addition, it should be pointed out that researchers have used a range of terms to describe the reasons influencing L2 WTC, for example, determinants, antecedents, variables, factors, influences, dimensions, and propensities. However, in this study, I use these terms interchangeably with no intention of distinguishing their relationship. In the following section, I will discuss specific variables that have been associated with L2 WTC.

2.4 Variables Underlying WTC in L2

2.4.1 The high-evidence psychological factors affecting L2 WTC

It is evident that attempts to isolate individual variables that affect WTC still continue to be a feature of WTC research. Recent articles (Elahi Shirvan et al., 2019; Jin & Lee, 2022) provide a meta-analysis to integrate previous findings on the correlation of L2 WTC and its high-evidence correlates that have most frequently been examined in the research into L2 WTC, as well as low-evidence correlates. Three high-evidence factors: learners' self-perceived communicative competence (SPCC), language anxiety, and motivation, were found to be highly correlated with L2 WTC, with SPCC having the

largest effect.

In MacIntyre's (1998) model, both the actual and perceived competence to express oneself have a significant impact on L2 WTC, and this has been supported by numerous empirical studies (Freiermuth & Jarrell, 2006; Liu & Jackson, 2008). Actual low linguistic proficiency and a lack of lexical resources were found to impede learners from taking the risk of speaking in L2 (Liu & Jackson, 2008). Compared with actual communicative competence, SPCC, referring to self-evaluation of one's own ability, achieved in L2 has been identified as a stronger predictor of L2 WTC (MacIntyre et al., 1998). It has been suggested that SPCC tends to exert a more direct and powerful impact on determining learners' willingness to engage in the L2 conversation (Baker & MacIntyre, 2000; Ghonsooly et al., 2012; MacIntyre et al., 2001). That is, people who perceive themselves to be good communicators tend to be more willing to communicate, and vice versa.

In addition, anxiety refers to an individual's level of fear and tension in communication (MacIntyre et al., 1998, p. 549), which includes various forms, such as a fear of speaking, a fear of misunderstanding and a fear of being misunderstood, a fear of being laughed at, and negative feelings, like worry and embarrassment (Dornyei & Ryan, 2015). These negative feelings seem to inhibit L2 oral communication and achievement in numerous studies (Dewaele & Thirtle, 2009; Gregersen, 2003; Liu, 2006). Language learners may find it difficult to fully express their ideas that would be well expressed in L1, or they may forget what they would otherwise know in an atmosphere of anxiety (Dornyei & Ryan, 2015). Studies into L2 WTC have confirmed the inverse relationship between anxiety and L2 WTC where L2 learners who have a relatively higher level of anxiety tend to show avoidance behaviours, such as reducing L2 WTC and avoiding interaction in L2 (Baker & MacIntyre, 2000; Kim, 2004; MacIntyre et al., 2001; Yashima, 2002). However, anxiety has been found not always to be negatively correlated with L2 WTC but dynamically related to it, which means there is a dynamic

relationship between WTC and anxiety by which positive, zero, and negative correlations exist over time (Khajavy et al., 2021). Similar results were also found in MacIntyre and Gregersen's study (2022) in which they analysed learners' idiodynamic data on WTC and anxiety.

Learner motivation is one of the most highly researched learner factors (Al-Hoorie & MacIntyre, 2019; Dörnyei et al., 2014; Gardner, 2010) and is considered important in influencing L2 WTC (Peng & Woodrow, 2010). A large body of literature has examined whether L2 learners with high motivation are more willing to communicate with others in L2 (Cetinkaya, 2005; Kim, 2004; Knell & Chi, 2012; Lahuerta, 2014; MacIntyre et al., 2003a, 2003b; MacIntyre et al., 1998). Gardner's "integrative motivation", including integrative orientation, attitudes toward the target language community, and interest in foreign languages, has been widely examined in many L2 WTC research. For instance, Macintyre et al. (2003a, 2003b) found strong correlations between L2 WTC and integrative motivation based on the results of research of immersion programs. Learners' integrative motivation could be easily identified when learners who were in the target language community sought to integrate into communities of native speakers. The integrative motivation was proved not to be transferrable to all situations where the target language was learned for self-improvement but less used as a medium of communication in daily life.

Dörnyei (2005, 2009b) introduced the L2 Motivational Self System (L2MSS) as a challenge to Gardner's (1985) integrative motivation as integration into L2 community was not supported by L2 learning in foreign language contexts. L2MSS consists of three components the *Ideal L2 Self*, the *Ought-to L2 Self*, and the *L2 Learning Experience* (Dörnyei, 2009b, p. 29).

Ideal L2 Self, which is the L2-specific facet of one's 'ideal self': if the person we would like to become speaks an L2, the 'ideal L2 self' is a powerful motivator to learn the L2

because of the desire to reduce the discrepancy between our actual and ideal selves.

Ought-to L2 Self, which concerns the attributes that one believes one ought to possess to meet expectations and to avoid possible negative outcomes.

L2 Learning Experience, which concerns situated, ‘executive’ motives related to the immediate learning environment and experience (e.g., the impact of the teacher, the curriculum, the peer group, and the experience of success).

Considering L2 WTC specifically, the investigation of the L2 self-concept related to one’s L2 WTC has found that the Ideal L2 self is a significant predictor of L2 WTC and plays a significant role in promoting language use (Ghonsooly et al., 2012; Munezane, 2015; Siying et al., 2020).

In addition, Yashima (2002) also introduced the notion of *international posture* to reinterpret Gardner’s (1985) integrative motivation defining it as “interest in foreign or international affairs, willingness to go overseas to study or work, readiness to interact with intercultural partners and ... a non-ethnocentric attitude toward different cultures” (Yashima, 2000, p. 57). It has been found in numerous studies that international posture directly impacts L2 WTC, whereas integrative motivation has an indirect effect on L2 WTC mediated by communication confidence (Cetinkaya, 2005; Ghonsooly et al., 2012; Yashima et al., 2004).

Thus far, I have reviewed individual psychological factors for which most evidence has been found in relation to L2 WTC from meta-studies (Elahi Shirvan et al., 2019; Jin & Lee, 2022). The studies have shown how psychological variables interrelate and affect the learners’ stable tendencies to communicate in the L2, assuming that L2 WTC and its influences were stable (Jin & Lee, 2022). Due to a lack of sufficient statistical information in the literature into low-evidence factors for meta-analysis, thus, it is hard to produce trustworthy interpretations at the present time. In addition, as mentioned

earlier, research into L2 WTC recently has witnessed a dynamic paradigm. The overview of existing literature and empirical investigations, on the one hand, shows the emerging role of contextual elements with which individual variables are closely related; on the other hand, it implicates the dynamics of the interplay among different variables which can influence L2 WTC at any time or in different timescales. This insight is echoed by Ushioda (2009) who has called for the ‘person-in-context’ relational view, which stresses a dynamically evolving and co-adaptive relationship between the learner and context. From this viewpoint, in the next section, I will review the literature with the purpose of understanding the interrelationships of variables underlying L2 WTC by integrating individual and contextual factors.

2.4.2 Contextual variables

Topics as the centre of communication have an important influence on learners’ WTC (Yue, 2016). Background knowledge and familiarity with a certain topic can improve learners’ self-confidence and then their tendency to communicate (Cao & Philp, 2006; Kang, 2005). Kang (2005) found that when discussing their familiar Korean culture, students tended to feel more secure. In contrast, encountering topics for which they lacked sufficient knowledge, they had a feeling of disadvantage and tried to avoid engaging in the conversation. Students in Cao’s (2009) study reported their preference for topics they selected, while they expressed reluctance to discuss topics involving sensitive issues related to politics as they felt disadvantaged because of a lack of knowledge. Peng (2014) found that learners were willing to talk if the topics were relevant to their daily lives, but conversely, they tended to avoid engaging with the broad topics irrelevant to their lives.

In addition to the learners’ prior content knowledge of specific topics, their perception towards the topic, such as interest, curiosity, boredom or perceptions of usefulness, or difficulty, can also influence their WTC (Cao, 2011; Chang, 2018; Eddy-U, 2015;

Zhang, 2018). For instance, innovative activities would intrigue learners' interest and curiosity and therefore increase their L2 WTC (Eddy-U, 2015; Zhang, 2018). Conversely, protracted and long-lasting tasks could cause students anxiety, boredom and burnout, thereby hindering their communication (Bernales, 2016; Pawlak, 2014; Suksawas, 2011). In some situations, even if students were not interested in a task, they may have felt motivated if they perceived the topic to be useful and effective (Khajavy et al., 2016; Peng & Woodrow, 2010; Zhong, 2013).

In Bernales's (2016) study, learners demonstrated higher L2 WTC in a 'free speaking' activity with an unrestricted topic encouraging a ready response. The impact of self-selected topics has been noted by Wolf (2013), where learners felt more interested in the topics selected by themselves rather than of those from the textbook. The low interest in the textbook was also found in Zhang's (2018) study, where learners felt more interested in the authentic materials chosen by teachers but tended to get bored with the textbook. Therefore, Zhang (2018) suggested that teachers should negotiate with learners about the learning material or conversation topics to try to match students' needs, interests, and background knowledge. Meanwhile, teachers could take this opportunity of negotiating with learners on the topics or learning materials to build rapport and increase learners' WTC.

In a language classroom, the teacher is not only an instructor to conduct teaching but also an interlocutor being involved in L2 interactions. A range of variables regarding the teacher have been captured, including the teacher's support, teaching style, immediacy, and rapport with students. Teacher support was found extremely helpful when students encountered difficulties in communication in terms of both comprehension and production (Zhang, 2018). Teacher support, including assistance, encouragement, feedback, trustworthiness, and interest in learners, has been identified to be helpful in reducing learners' anxiety, promoting students to generate a sense of security which in turn motivates their involvement in communication (Kang, 2005;

Peng, 2014; Zarrinabadi, 2014). Teacher support even in the form of short confirmatory phrases or smiling was found to positively affect learners' WTC (Zarrinabadi, 2014). Teacher's immediacy, as one part of teacher support (Peng, 2014), refers to teacher's behaviour that influences learners' perceptions of the degree of physical and psychological closeness to their teacher (e.g., encouragement and confirmation), and this has been especially highlighted by researchers as a crucial factor affecting students' affective/cognitive learning and language WTC (Cao, 2011; Fallah, 2014; Peng et al., 2017; Wen & Clément, 2003).

The rapport between teachers and students also plays a vital role in creating a positive classroom atmosphere which in turn motivates learners' active involvement. Chang (2018) in her dissertation demonstrated the process of building rapport between the teacher and students, suggesting that "the more knowledgeable the professor is about his students, the stronger the student-professor rapport, and the higher the comfort level of participating in the class". Bernales (2016) found that the desire to establish rapport could make students feel responsible for meeting teacher expectations or pleasing their teachers through actively participating in communication. Kang (2005) also claimed that maintaining interpersonal relationships played a role in shaping the learners' sense of responsibility, which might influence their engagement in conversation.

Additionally, WTC was found to be associated with specific communication patterns. As suggested by previous research (Cao, 2011; Liu & Jackson, 2008; Peng, 2014; Wen & Clément, 2003), learners tended to show their preference for groups or dyads rather than whole-class activity. Compared to anxiety-provoking whole-class/public interactions, learners felt less nervous and more comfortable in dyads or small groups (Cao & Philp, 2006; de Saint Léger & Storch, 2009; Lee, 2009; Mystkowska-Wiertelak, 2016; Riasati, 2012; Zhong, 2013).

Moreover, it seems that the role of interlocutors was prominent in group and dyadic

communicative interactions, as Dörnyei (2002) reported that even if one's interlocutor(s) simply reacted more to "complete adjacency pairs" (p. 152), the learner would be more likely to speak. Therefore, it is possible to argue that the speaker's WTC behaviours in these exchange patterns tended to be co-constructed in response to the interlocutor's 'pulling force'. As suggested by Eddy-U (2015), the sense of responsibility here may result from a desire to sustain positive relationships with others of the same group. Zhang (2018) found that in group or dyadic activities, students tended to feel more responsible, and experience less embarrassing silence than they did in the whole class. Similar results were revealed in the studies of Peng (2012) and Kang (2005), who indicated that feelings of responsibility are negatively associated with the number of interlocutors. Previous WTC studies have focused on group or dyadic discussions where the main interlocutors are peers. However, little research has been carried out into the small groups or dyads involving the teacher as one of the participants.

2.4.3 The integration of psychological and contextual factors and learner agency

Through the above discussions of the impacts of contextual and psychological variables on individual language learner's L2 WTC, it can be understood that these variables jointly facilitate L2 WTC at a specific time. However, learners are not like a thermometer passively responding to the interaction of variables, but active agents capable of shaping their own L2 WTC by intervening in the communication process (Syed et al., 2022). Therefore, learner agency should be taken into consideration when explaining the dynamic nature of L2 WTC.

Larsen-Freeman (2019) defined learner agency as "optimizing conditions for one's own learning (or not) and choosing to deploy one's semiotic resources to position oneself as one would wish in a multilingual world" (p. 62). Agency is a complex construct with relational, emergentist, spatio-temporally situated, hierarchical and multidimensional characteristics. That is, learners can exercise their agency to resist or amplify the

impacts of multiple variables, and the emergence of agency is related to ecological affordances. An illustration of learner agency is learners' perception of the effects of multimodality (such as the use of images) in Peng's (2019) study, despite learner agency not being the focus in that study. Peng asked four focal students to choose one PowerPoint slide that they felt high WTC and the results showed that the individual students' preferences varied, confirming van Lier's (2000) assertion of the importance of learners' agency in their perceiving and acting on affordances. Another illustration is the perception of opportunity to communicate. Cao (2011) and Syed (2016) found perceived opportunity to communicate as a major psychological factor contributing to WTC. They found that some students prefer to wait for suitable opportunities to communicate while other students proactively exploit opportunities to enhance the possibilities of L2 use.

As suggested by Syed et al. (2022), learner agency could be considered as "a dialectical phenomenon subject to both internal and external factors" (p. 9). Similarly, Zhang et al. (2018) conducted a systematic review of 35 studies into situational variables of L2 WTC, where *situation cues* (the objective features of situations,) and *characteristics* (subjective perceptions of situations) were introduced to distinguish the subjective perceptions of situations from their objective features. They found that three *situation cues*: tasks, classroom atmosphere, and interlocutors have been studied relatively widely, while the evidence of *situation characteristics*: such as support, objectives, and cooperation is still limited. They strongly called for future research integrating the two types of situational antecedents to systematically explain the variability in state L2 WTC. In line with this review, Zhang et al. (2022) employed a high-density repeated measurement design and learners' self-report questionnaire regarding to the fluctuations of L2 WTC. They found that state WTC varied systematically within the person with changes in students' perceptions of the learning situations (e.g., teacher support, task-interest, and task-importance).

Both studies (Zhang et al., 2018, 2022) indicated that the role of well-defined situational factors (*situation cues*) in L2 WTC were shaped by individuals' interpretations and feelings (*situation characteristics*), implying that language learners actively participate in shaping the development of the contextual interaction through interpretation and negotiation with the surrounding contexts. These studies are informative for research to bring learner agency into the dynamic nature of WTC. However, no investigations have directly involved learner agency as one important variable in determining L2 WTC, even though agency appears in the findings or discussion of factors that may not have been explained by the concepts that were established at the outset.

2.5 Teachers' Perceptions of Learners' WTC

As can be seen from previous sections, most existing studies into L2 WTC have focused on learners' perception, while research on L2 WTC from teachers' perception has received little attention (Allahyar, 2021; Allahyar et al., 2022; Cameron, 2020; Cao, 2009, 2016). There are two aspects of such research: the level of teachers' awareness, and the actions they might take as a result to influence learners' WTC. In fact teachers, as one of the influential factors in L2 WTC perceived by learners mentioned in section 2.4.2, "have the potential at any moment to increase or decrease WTC among the students" (MacIntyre & Legatto, 2011, p. 88).

Cao's (2016) study focused on teachers' awareness of cultural influence on students' WTC through video-taped classroom interactions, interviews with 12 teachers, and stimulated-recall interviews with 33 students. Content analysis showed that Chinese culture in general, learners' previous English learning experiences, and teachers' authority figure were identified as the three main themes influencing learners' WTC. The findings suggest that teachers can use accommodating strategies to promote students' WTC in class, such as teacher elicitation techniques and focus-on-meaning

activities. Zarei et al. (2019) employed focus group interviews with 19 EFL teachers' perceptions about which teaching strategies they used to influence learners' WTC. Good relationships with their learners, appropriate choice of topics and an encouraging teaching style were identified to positively relate to L2 WTC, whereas the traditional authoritarian role of the teachers' and institutional expectations, such as a restrictive syllabus were believed to hinder L2 WTC.

Allahyar (2021) employed semi-structured interviews with six Iranian English teachers to explore their perceptions of learners' WTC and reticence. Drawing on attribution theory, the study revealed that teachers attributed students' reticence to learners' internal causes (student-owned problems), while they attributed learners' willingness to engage in conversation to external causes (teachers support). Allahyar et al. (2022) assumed that language teachers held stable perceptions about learners' WTC and tended to categorize learners into two types: WTC and UnWTC. Based on this assumption, Allahyar et al. (2022) used observations, video and audio recordings of classroom interaction, and interviews with three teachers to see how teachers' perception of learners' WTC affects the frequency and method of their turn allocation. The results revealed that students who were perceived by teachers to be higher WTC had more voluntary turns, while those perceived as UnWTC received more designated turns. This study concluded that teachers' perception of learners as WTC and UnWTC influences the frequency and the way turns are allocated.

Wang and Zhou (2021) utilized questionnaires, focused essays, and interviews to investigate the impact of teachers on students' willingness to communicate in Chinese (WTCC) from the perspectives of learners and Chinese teachers. They found that teachers' personality, classroom feedback, teaching attitude, emotional care, and teaching management significantly influenced students' WTCC. Additionally, the result from comparison between teachers and learners suggest overlapping concerns regarding classroom feedback and teaching attitude. However, teachers emphasized the

way activities organised and teaching methods, while students focused more on teachers' personality and feedback.

However, such research into teachers' perceptions of learners' WTC occurred in traditional classroom settings involving one teacher with many students. Therefore, it was hard for teachers to track the fluctuation in each student's WTC, which might explain why they tend to classify learners categorically as WTC and UnWTC instead of taking a dynamic view of WTC. However, in the one-on-one teaching setting, teachers are able to constantly perceive the only other person in the conversation, so that research into this setting as this present study aims to achieve can deepen our understanding of teachers' perception of learners' WTC. More importantly, as teacher and learner psychologies are complementary (Dörnyei & Kubanyiova, 2014), a comparison between the self-rated WTC by learners and other-rated WTC by their teachers is worthy of greater investigation. To date (August 2022), this present study is the first to compare the learners' perceptions of their individual WTC behaviour with that of their teachers from a dynamic perspective.

2.6 Summary

This chapter provided the review of the literature on WTC. Following the focus on the importance of interaction and WTC in L2 learning from different theoretical perspectives, I extended the discussion to the nature of WTC, that is, whether the phenomenon of WTC is a dynamic or stable trait human characteristic. Considering the emerging complex interaction among in shaping variations in levels of WTC over time, CDST is believed to offer a productive way of viewing and researching L2 WTC. Current research tends to consider WTC as dynamic and situated in context rather than a linear and static disposition based on CDST. Meanwhile, in addition to learners' perceptions of their own WTCC, teachers' views on learners' intention to communicate

and engagement is needed to provide insight into the complexity and dynamics of L2 WTCC system.

Chapter 3 Synchronous Online Language Learning

Thus far, I have reviewed the evolution of L2 WTC conceptualization and relevant empirical investigations that deepen understanding of this construct. The overview of the existing literature shows the interplays among different individual and contextual variables in respect of the dynamics of L2 WTC. Those studies reviewed in the previous chapter were based on face-to-face (F2F) contexts. However, with the development of digital technologies, learning an L2 goes beyond learning in F2F contexts. Therefore, I will first review the current literature on L2 WTC undertaken in digital settings (Section 3.1). Then, based on this, I will explore the relevant aspects of synchronous computer-mediated communication settings that may have an impact on WTC (Section 3.2). This part ends with a brief review of the SCOLT model which is specifically designed for guiding teaching and research in the SCOLT setting, and the empirical research undertaken on it.

3.1 L2 WTC in Digital Settings

With the development of digital technologies, computer-mediated communication (CMC) has been increasingly integrated in peoples' lives and the field of language education has increasingly taken full advantage of digital technologies to promote language learning and learners' WTC in the L2 (Ebadi & Ebadijalal, 2020). A growing number of researchers have shown digital technology as a promotor of L2 interaction, including text-based chat (Compton, 2004a, 2004b), audio-based chat (Lepore, 2014), or the more recent research of digital games (Reinders & Wattana, 2014), extramural digital context (such as social media) (Lee, 2019), Second Life virtual reality (Ebadi & Ebadijalal, 2020), and Google Assistant (Tai & Chen, 2020).

The early studies of WTC in online contexts examined the use of Internet chat integrated into physical language classrooms to increase learners' WTC (Compton,

2004a, 2004b; Jarrell & Freiermuth, 2005). Compton (2004b) utilised computer technology (text-based chatting) to create the desired atmosphere to help ESL students feel confident and willing to participate orally in class discussions. However, the impact of chat on WTC varied from learner to learner, and was dependent on many factors, such as topics and interlocutors. Another study also investigated the use of chatting as a means of interaction to motivate learners and increase their WTC (Jarrell & Freiermuth, 2005). Data gathered from a post-test questionnaire, and an analysis of the discourse produced by EFL Japanese students found that the majority preferred chat to face-to-face interaction. In a related study, Freiermuth and Jarrell (2006) further investigated the effects the tool had on Japanese university students' WTC compared with students in face-to-face settings. In their view, chatting helped students feel more prepared and to organise their ideas, improving their perceived competence and confidence before speaking tasks. Meanwhile, those tasks with a sense of authentic need for communication were found to be more successful in promoting learners' WTC. Thus, they emphasized that the nature of the chat tasks and providing clearly defined task objectives need to be carefully considered.

In the digital games context, Reinders and Wattana (2014) conducted two sets of questionnaires to gauge the general WTC of 30 Thai learners of English. The questionnaires were administered before and after gaming sessions. Results showed that the affordances of games can positively affect the language learning process. In their related study (Reinders & Wattana, 2015), they subsequently asked these 30 students to accomplish an interview task after each game to identify what impact gameplay had on their WTC in English. The results showed the benefits of gameplay on WTC, because it lowered their affective barriers to learning and increased their WTC. In another online context, that is extramural digital context (such as social media), Lee and Hsieh (2019) adopted psychometric testing through a questionnaire to measure 261 EFL undergraduate students in in-class, out-of-class, and digital contexts; the results suggested that students may feel more comfortable with the digital context than

conventional offline settings. In studies carried out by Lee and Dražati (2019a, 2019b), they viewed the L2 WTC online as trait-like WTC using the psychometric method.

In virtual worlds, such as Second life (SL), Kruk used a dynamic system approach by asking advanced Polish EFL learners to rate their L2 WTC at the start, in the middle, and at the end of the session to look into the change in WTC levels (Kruk, 2021, 2022). He also interviewed students to seek to pinpoint factors causing fluctuations. The quantitative and qualitative analysis of the data showed variations in the levels of L2 WTC during their visits to SL and from one visit to the next. Kruk (2019), for example, demonstrated how learners' L2 WTC was influenced by several factors (e.g., topics, pleasant/unpleasant interlocutors, understanding the output produced by SL users, and the protecting effect of an avatar) during their communication in SL.

The value of synchronous computer-mediated communication (SCMC) has been examined in online language learning and teaching (Guichon, 2010; O'Rourke & Stickler, 2017; White et al., 2016). SCMC, via popular video/audio-conferencing tools, such as ZOOM, Tencent Meeting, or Google Meets, brings people, teachers and learners in this case, together for simultaneous pedagogical interaction (O'Rourke & Stickler, 2017). Considering the L2 WTC domain specifically, Lee and Liu (2022) used the idiodynamic method to investigate the dynamic nature of L2 WTC in a laboratory-style SCMC online class, through a CDST lens. Seven Chinese EFL students were recruited to attend three sessions in which topics, tasks, and session stages were prescribed for each session and then the idiodynamic method was used. That is, while watching a video recording of their performance in the online class, participants self-rated L2 WTC on a minute-by-minute basis in an excel spreadsheet on a scale from -5 to +5. The results showed that L2 WTC indeed fluctuated during the online activities due to the combined influences of various trait-like factors (e.g., openness to a new online learning experience) and state-like factors (e.g., technical issues).

Although a dynamic approach to understanding L2 WTC has been gaining ground in the previous literature (Zhang et al., 2018), research on the dynamics of L2 WTC in digital settings has received little attention (Kruk, 2021, 2022; Lee & Liu, 2022). Despite the significance and potential of these new developments in SCMC, the theorizing and researching learners' WTC in SCMC have appeared to lag far behind innovation and practice (White et al., 2020), in particular through a dynamic system approach to understanding L2 WTC.

3.2 Synchronous Online Language Teaching and Learning

SCMC development coincides with the evolution of technology and the internet from Web 1.0, focused on users receiving information, to Web 2.0, which facilitates and emphasises interaction, collaboration, networking, and creation (Wang & Vásquez, 2012). With the development of Web 2.0, L2 learning paradigms provide new affordances for L2 learning as they move from the traditional classroom towards a social orientation within more naturalistic settings; importantly too is the move from learning to using and participation (Wang & Vásquez, 2012). SCMC applications (such as ZOOM, Google meets), as one important set of Web 2.0 technologies, have become prominent and have attracted increasing attention from teachers and researchers as a socially mediated form of instructional activity.

3.2.1 Social presence and SCMC

Synchronous communication (SC) runs under conditions of a simultaneous presence (co-presence) in a shared communicative space. With rapid technological advancement in recent years, synchronous tools, such as ZOOM and Skype, make online communication more natural and similar to F2F communication. These advances enable learners to have collaborative opportunities to extend interactions with others simultaneously but from a distance through SCMC environments (Reinders & White, 2016). In the videoconferencing SCMC environment with its interactive, real-time, multimedia

characteristics, learners can virtually connect and interact through applications or online platforms to foster L2 speaking practice (Healey, 2016).

Technology-mediated SC shares some properties of F2F communication including: turn-taking structure, rapid negotiation of meaning, and real-time pressure to maintain connectedness. O'Rourke and Stickler (2017) argued that these properties are related to the social presence (SP), meaning significant communication in online settings requires creating a sense of presence that facilitates meaningful and smooth interactions. SP was defined as "the perception of others as real and present" (Short et al., 1976, p. 65) and "a quality of participants to establish and maintain social and affective connections with others in interaction and their ability to project themselves into the community" (Satar, 2015, p. 481). In terms of promoting exchange and learning in educational settings, Wei and Chen (2012) argued, "learners must perceive an appropriate degree of social presence before feeling comfortable in interaction with others. Therefore, social presence is key for enhancing and fostering learning interactions in online classrooms" (p. 530).

Heiser et al. (2013) also found SP to be one of the key elements to the success of SCMC. It contributes to learners' satisfaction with learning (Harsch et al., 2021), enhances learners' experiences of online learning and makes communication more natural (Lowenthal, 2010), promotes greater willingness to take the risk of participating in interaction (Kehrwald, 2008), and helps learners manage turn-taking (Bee Bee & Gardner, 2012). Guichon and Cohen (2014) considered *immediacy*, *sociability*, and *intimacy* as three dimensions to determine the degree of SP. *Immediacy* refers to the psychological proximity of the interlocutors. Bozkaya (2008) and Quinlisk (2008) discovered that physical barriers could be partly removed through videoconferencing in which teachers' verbal behaviour (such as humour and providing feedback) and non-verbal behaviour (such as gestures and smiling) could provide immediacy cues. *Sociability* refers to the psychological climate among interlocutors and the possibility

of developing affinities. Develotte et al. (2010) studied the benefits of a webcam in online language learning. They argued that “webcamming creates presence at a distance, installs an obvious connection between the participants and develops the quality of the pedagogical relationship” (Develotte et al., 2010, p. 309).

In terms of *intimacy*, which pertains to the quality and familiarity of the interaction, Yamada and Akahori (2007) found that the interlocuter’s image had a significant impact on SP when they compared the effect of four types of SCMC on language learning: text-based chat with and without interlocutors’ image, audioconferencing, and videoconferencing. Being able to “see the partner’s personality and non-verbal behaviours” (Yamada & Akahori, 2007, p. 61) enabled learners to feel more comfortable communicating. In Yamada’s (2009) study with a similar design, he found that the participants were observed to speak more in the videoconferencing SCMC setting. The addition of video was observed to motivate the participants to communicate more, especially via visible behaviours of nodding and laughter. The findings also underlined the importance of visual cues for turn-taking, increased SP, and further improving learners’ willingness to communicate.

However, Guichon and Cohen (2014) found no difference in the learners’ perception of SP in audioconferencing and videoconferencing settings, possibly because the access to teachers’ images distracted learners’ attention from teachers’ utterances. Yet, the two conditions showed different results in terms of silences and overlaps (segments of utterances that were pronounced simultaneously by at least two speakers). Guichon and Cohen (2014) found more overlaps in the videoconferencing condition as interaction, in this case, was more rapid and seamless, whereas more student silences occurred in audioconferencing as audioconferencing “offers no paralinguistic cues as to when to take the floor” (p. 349).

Satar (2011) created a SP framework, developed for the analysis of online multimodal language learner interactions, which consisted of *building intimacy, sustaining interaction, establishing intersubjectivity, multimodality, apprehension and relaxation, beliefs about online communication, and foreign language* (p. 339). Within this framework, gaze was one aspect of multimodality. Satar (2013) analysed the gaze's mediating effects by exploring the online interactions between language learners. Focusing on the impact of eye contact, she discussed how the gaze behaviour of online language learners differs from that in face-to-face settings and identified five types of gaze involved in videoconferencing: fixed, free, strategic, averted and directed gaze. Later, Satar (2015) explored sustaining interaction in her SP framework to demonstrate how communicative harmony was achieved and how learners sustained their interactions. Her results showed that through simultaneous use of linguistic and paralinguistic contextualisation cues: *questions, backchannels, reciprocation, listening and paying attention, collaboration, chronemics, and turns and silences*, participants could project their own SP and perceive each other's in interaction. For example, *questions* were found to be an indication of willingness to communicate and an invitation to continue the conversation. Asking questions as an interactive indicator of SP played an essential role in maintaining the conversation.

The above studies have suggested the benefit of webcam affording audio-visual communication in online language learning, significantly increasing the degree of interlocutors' SP. However, interactions via videoconferencing differ from F2F interactions, as the webcam only offers a two-dimensional moving image of the interlocutors within the specific frame and lacks other physical sensations (Guichon & Wigham, 2016; Guichon, 2017). In addition, due to a lack of spatio-temporal continuity, which means "the interactions occur in a third space without a physical context, and can begin and end instantaneously or abruptly" (Bezemer & Kress, 2015, p. 26), the audio-visual affordances of videoconferencing could become more prominent in maintaining SP (Satar, 2020), and could even become more burdensome for participants.

Therefore, despite the benefits of a webcam in SCMC settings, Kozar (2016a) found a sharp decrease in the use of the webcam after teacher-student dyads had used it in the initial sessions to build teaching-learning relationships due to demanding energy consumption and privacy concerns. In Kozar's series of studies into the one-on-one online language tutoring context, she discovered that not all teachers and students frequently use a webcam or took advantage of its potential as expected (Kozar, 2016a, 2016b, 2018). Kern (2014) investigated learners' opinions on the facilitating role of the webcam in their language learning. The learners reported that their self-confidence increased, and they felt more willing to engage with the interactions as they perceived videoconferencing SCMC as authentic. However, Kern (2014) also reported imperfect aspects of using a webcam. In particular, during internet instability causing the audio and video desynchronisation, learners felt confused about the teacher's non-verbal behaviours. They might need more explicit feedback to reduce such misunderstandings.

However, videoconferencing SCMC tools like ZOOM afford unprecedented levels of multimodal communication, including text, audio, and webcam video (Chanier & Lamy, 2017; Kozar, 2016a). That is, besides the leading role of the webcam in creating and maintaining SP, other channels in SCMC also have a significant effect on online language learning. For example, the text chat feature in SCMC tools like ZOOM allows users simultaneously to use text chat while engaging in a video call (Kessler et al., 2021). Kozar (2016c) studied how teachers used text chat in one-on-one private online tutoring to serve pedagogical and organisational functions. She argued that if appropriately utilised, the text-chat feature can give language learners additional scaffolding support by attracting their attention to various L2 characteristics such as vocabulary, spelling, and more. In addition to the pedagogical use of the text chat feature, the literature also cites instances of the remedial use of text chat, referring to text chat as compensation for communication difficulties (Hampel & Stickler, 2012). For example, communication would occur in the text chat in conditions with poor internet, particularly where a significant time lag occurred in the voice channel

(Cunningham et al., 2010). Contrary to the compensatory use of text chat for a breakdown of audio or video interaction, text chat has competing use, which refers to the creation of parallel conversations, where a written chat conversation occurs simultaneously with an ongoing audio/video exchange. However, these parallel conversations are sometimes disruptive and distract learners' attention (Meskill & Anthony, 2014).

Thus far, I have reviewed the role of SP in online language learning, in particular in promoting learners' willingness to engage in conversation, its components, with reference to three dimensions in determining its level, and the effect of different modes in constructing SP in a multimodal SCMC environment, such as webcam, and text chat. The overview of existing literature shows the complexity of the nature of SP, and its indicators, as Satar (2015, p. 498) argued that social presence is specific to the individual and is "dynamic and co-constructed during interaction". Therefore, SP is not determined by the single modes of the virtual world environment but by the interlocutors' ability to employ the affordances of multimodality in SCMC and their communication skills. For example, besides webcam and text chat, other multimodalities, such as the shared screen whiteboard, may also come into play.

3.2.2 One-to-One teaching and learning

The above research clearly confirms the refining role of SCMC settings in language education, and the affordances of videoconferencing SCMC in multimodal communication and facilitating the establishment of social presence. With the rapid development of SCMC tools, people could use individualised video chats, leading groups from classes in different parts of the world to come together to complete projects in L2. This can include student groups from different classes across the world with mutual learning purposes (Chun, 2015; O'Dowd, 2018, 2021). Some of these virtual exchange programs include telecollaborative projects that students of different

languages join together, such as Chinese-American telecollaborative learning programs (Luo & Gao, 2022; Luo & Gui, 2021; Luo & Yang, 2022) and EVOLVE (Evidence-Based Online Learning through Virtual Exchange) project held by many universities (Groningen, León, Grenoble, Open University UK, Jan Dlugosz PL, Padova, Warwick, Malmö) (EVOLVE Project Team, 2020).

Another subset can be teachers (involving professional and preservice teachers) with students in other parts of the world (one-to-one or one-to-many). The study is situated in a one-to-one arrangement wherein the exchange takes place between one teacher and one learner, I will review this type of one-to-one SCMC in detail.

Although there is an increasing number of institutions, private tutors, and learners using videoconferencing for language education in teacher-training courses and peer tele-tandem projects (Canto et al., 2013; Cunningham et al., 2010; Jauregi & Bañados, 2008, 2010; Jauregi et al., 2012; Sung & Cheng, 2017), investigations of the pedagogical practices in (professional and preservice) teacher-learner dyads are still scarce (Kozar, 2016a, 2016b, 2016c, 2018; White et al., 2020). In a one-on-one (one professional tutor with one learner) setting with a commercial purpose, Kozar (2015) investigated the interaction patterns of six one-to-one professional teacher-learner pairs. She discovered that there is generally asymmetrical role distribution between teachers and students. During the interaction, the teachers used an interview style in which they asked questions, and the learners answered them often in initiation-response-feedback (IRF) exchange sequences. Despite the teachers' dominance, the learners took an implicit responsibility to engage in the conversations when they entered the site as the only other person present in the session. More importantly, in these sessions for which there was no set curriculum, there was a process of negotiating a curriculum, with the teacher attending to the needs of the students.

Another contribution to the understanding of one-to-one videoconferencing that Kozar

(2015) made was the structure of private online tutoring sessions. She found that the analysed lessons followed a similar structure: opening stage (greetings, an optional technical setup, and small talk), main stage (interview-like style as mentioned in the above paragraph), and closing stage (an optional summary of the class, optional assigning homework and leave-taking). Similar research into the structure of the intact online class also divided the session into three phases: an introduction, a teaching phase, and a final phase (Shi et al., 2017), or greetings, teaching, and farewell (Shi & Stickler, 2018). It is worth noting that the opening and closing phases served some functions and attracted attention, even though they were not the research focus. Although Shi and Stickler (2018) found that the turns in the opening and closing phases were brief and accounted for less than five per cent of all turns, feedback in these phases accounted for a third of the total interactions. Shi et al. (2017) discovered that teachers more experienced with online instruction utilised the openings and closings to build rapport with the learners, whereas less experienced teachers would assign more attention to the technical aspects. Therefore, Shi et al. (2017) concluded that “introductions and goodbyes play a distinct role in online teaching” (p.218), especially in recognising and responding to learners’ affective and pedagogical needs.

Although Kurikova (2019) discovered openings and closings in one-on-one online tutoring seemingly followed a predetermined structure (such as greetings), they were far from routine. Through analysis of audio recordings of one-to-one sessions and teachers’ interviews, teachers needed to consistently assess the situation and adjust their decisions to respond to learners’ reactions. Therefore, she found teachers in this one-to-one setting needed to balance their role’s pedagogical and “friendly” dimensions. For example, the openings, particularly small talk during these, felt like “a nice talk ... with a friend” (p. 43) in which teachers could build rapport with their learners. Despite the significant role of openings in promoting teacher-learner interaction, Dai (2022) found that one preservice teacher in her study overly provided corrective feedback to learners in this stage, and so ignored the affective value of the openings and did not achieve the

socio-affective goal of building rapport with her learner. During the small talk, Dai (2022) argued that teachers should encourage the learners to speak in the target language and bring them into a more positive and productive emotional state.

Closings in the one-on-one online tutorial setting have been identified by Kurikova (2019) and Kozar (2015) as teacher-guided and brief. Since their analysed lessons were from private companies, learners' retention and commitment to the following session was a strong consideration for the teachers. Thus, some strategies for effective closings were found in Kurikova's (2019) study, such as a recap of the learning content to make students feel that the lesson had been useful, small talk to continue to build rapport with learners, a reminder of the date of the next lesson, and a preview of the following session. However, the above research into openings and closings focused on teachers' perspectives of the interaction during these stages per se; learners' perception of these stages was not investigated.

Another one-on-one setting consists of one trainee teacher and one learner who join together with a mutual learning purpose, trainee teachers to increase online teaching skills, L2 learners to increase their access to L2 use. As indicated above, Dai's (2022) study included preservice teachers, and some other studies also examine this setting (Canto et al., 2013; Jauregi & Bañados, 2008; Jauregi et al., 2012; Wigham, 2017). For example, the Networked Interaction in Foreign Language Acquisition and Research (NIFLAR) project, brought masters-level teacher trainees who were native speakers of Dutch and Czech foreign language learners of Dutch together to interact in Dutch with each other in dyads. The objectives of integration were for the learners to enrich their learning experience by engaging in authentic interactions and for pre-service teachers to improve their pedagogical knowledge and teaching skills. The learners in this project showed strong motivation and their oral communicative competence improved (Canto et al., 2013; Jauregi et al., 2012).

Canto et al. (2013) compared the effect of three types of communication used during the project, videoconferencing, Second Life, and F2F on language learning. Students in the first two contexts interacted with NS, while the control group (F2F) performed the tasks F2F with classroom peers and had no opportunity to interact with native experts. The researchers found that the learners' oral competence in experimental groups (videoconferencing and Second Life) outperformed the control group. The survey data showed that experimental group students felt more motivated and gained more intercultural awareness and confidence. Jauregi et al. (2012) used questionnaires to investigate whether videoconferencing one-on-one interaction sessions impacted the learners' motivation. The results showed that learners at different levels within the project responded differentially, with stronger motivation to learn among those with lower proficiency. All learners showed their willingness to communicate in this context.

3.3 SCOLT Model and Research

As mentioned in 1.2.1, this study is situated in the SCOLT project in which Chinese language teachers from Beijing Language and Culture University and Chinese language learners from Massey University formed pairs to conduct a series of one-to-one online language practice sessions. SCOLT is a multipurpose project, with teaching and research foci. Next, I will review the SCOLT model and the relevant studies.

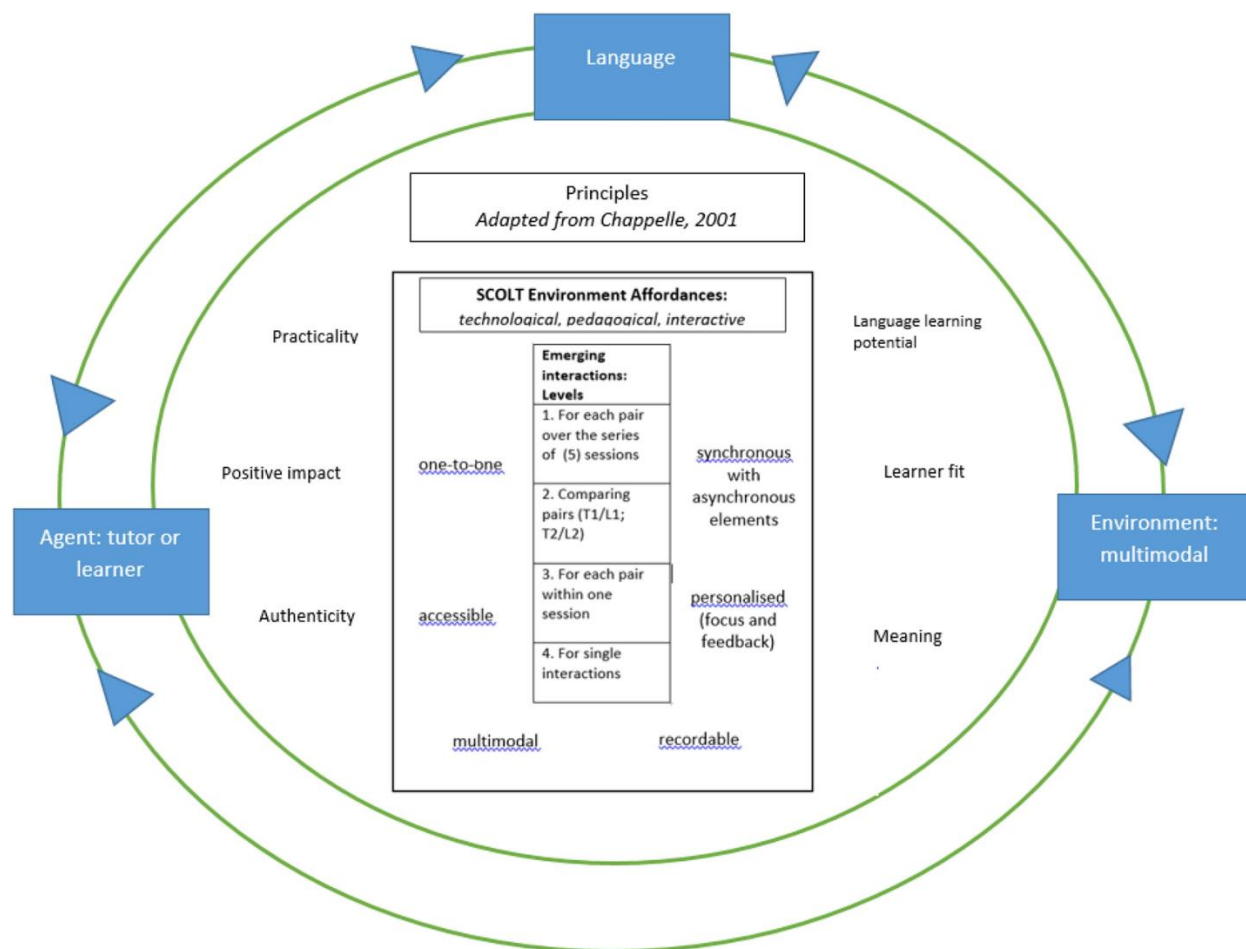
3.3.1 SCOLT model

Drawing on the existing research on computer assisted language learning and work in SCOLT practice, the leaders of this project have proposed a model (see Figure 3.1) to inform understanding of one-on-one videoconferencing Chinese tutorials (White et al., 2020). In addition to the pedagogical purposes for learning for both cohorts, the SCOLT project has a research purpose by providing rich data on Chinese learning and teaching in a one-to-one videoconferencing context. As White et al. (2020) suggest, the implementation of SCOLT is strongly informed by the Interaction Hypothesis and

Sociocultural theory (SCT). The theoretical underpinnings will be introduced with the SCOLT model.

Figure 3.1

The SCOLT model (White et al., 2020)



3.3.1.1 Emerging interactions

The interaction hypothesis has often been called on to explain online interactive learning, assuming that learners’ language development occurs when engaging in communicative activities (Hampel, 2006). Therefore, at the centre of the model are the interactions per se between tutors and learners. When analysing the emerging interactions, White et al. (2020) have specified that emergent interactions can be analysed at different temporal levels. The levels range from the micro-level of individual sequences within a session to macro-level developments over all sessions

and comparing different pairs/groups. The Level 1, macro perspective, over the course of a collaborative series of sessions, reveals how different tutor-learner dyads construct their particular learning environments and relationships in the SCOLT context. Level 2, contrasting different pairs, examines the particular features of dyads whose ways of working together emerge in different ways and focuses on variations in how individuals work. Level 3, analysis of change over time within one 20-minute session, enables researchers to trace how the interactive effects of language-agent-environment evolve at different session stages. Level 4, the micro level of analysis, the most fine-grained, looks at specific moments in detail.

3.3.1.2 Affordances and characteristics of SCOLT

The second layer of the model in the central rectangle shows the affordances of the SCOLT environment. Its *one-to-one* teaching and *synchronous* nature maximise learners' learning opportunities and their responsibility, as there is more "pressure to respond in a timely fashion to interlocutors' contributions" (O'Rourke & Stickler, 2017, p. 4).

Personalised learning is achieved through a negotiated curriculum tailored to the single learner's needs and interests (Clarke, 1991). In Dai's (2022) research into the SCOLT project, she found that through negotiating conversation topics and learning material, tutors would recognise learners' needs, interests and actual language proficiency, thereby providing more individualised learning opportunities for them. In addition, the negotiation of the curriculum was not a one-off activity. Instead, it was a continuing process. Hence, learners would be more engaged and feel more responsible for the whole learning process through negotiation with their tutors during and after SCOLT sessions. In the SCOLT environment, ideally students are not just passive respondents to pre-packaged content, but active co-designers and producers of content.

The platform used, ZOOM, is *accessible*, *recordable*, and *multimodal*. The recordable

function can allow learners and tutors to record themselves and identify their difficulties, facilitating speech correction as needed. Multimodal affordances such as screen-sharing, whiteboard and text chat, and the webcam and audial channels can allow participants to engage in the conversation more personally (Wang, 2007).

3.3.1.3 Research-based principles for SCOLT

The third layer of the model provides principles for the evaluation of the appropriateness of online tasks. In the SCOLT model, Chapelle's (2001) six measures of task appropriateness and Wang's (2007) criteria for evaluating videoconferencing tasks have been used to evaluate SCOLT tasks and activities.

Practicality refers to “the fit between the required task and the capabilities of the chosen videoconferencing tool” (Wang, 2007, p. 593). It highlights the importance of the tutor's skill in making use of the emergent resources of the videoconferencing platform. The ZOOM platform provides user-friendly services with easy access and utilisation, facilitating communication aided by the video-mediated encounter.

Chapelle (2011) defined language learning as “the extent to which the activity can be considered to be a language learning activity rather than simply an opportunity for language use” (p. 55). Further, she defines language learning and uses as “the extent to which the task promotes beneficial focus on form” (p. 55). Chapelle (2001) and White et al. (2020) separate use from learning and suggest the focus on form part is important to ensure it is more than just use but language potential. Later, Wang (2007) combined *meaning* and *language-learning potential* within tasks into a single construct. From the Interaction Hypothesis, meaning-making and focus on form are inseparable. If meaning-making is thwarted by failure, it inevitably gives rise to focus on form as the interlocutors attempt to repair whatever language was wrong in order to create the intended meaning. Wang recognised the separation of language use and language learning would downplay other gains that learners may make. Therefore, Wang (2007)

incorporates *meaning* and *language-learning potential* under *positive impact*, “be it improved knowledge, improved pragmatic abilities, or interest in the target culture” (p. 595).

Learner fit focuses on the adaptation the tutor makes to the learner’s linguistic needs, interests, proficiency level and pace. In SCOLT tutorials, the use of a negotiated curriculum through which “teachers design the learning process based on ongoing learner feedback” (Murray & Christison, 2014, p. 182) meets this criterion. The one-to-one encounter and the encouragement of learners to negotiate what they want to learn meets the *Authenticity* principle. *Authenticity* concerns the degree of alignment between the videoconferencing activities and real-life target language activities of interest and use to the learner.

3.3.1.4 The interplay between language, agent, and environment

The outer layer of the model focuses on the complex dynamic interaction among agents, environment, and language. Informed by SCT, this layer suggests that learners’ language development and acquisition is mediated by the external environment, as active engagement in interaction is aided by artificial tools, concepts, or other more knowledgeable tutors. As proposed by Dörnyei (2009a), language-agent-environment interactions moment by moment in the sites of learning should be the focus of the field of language learning. *Agents*, referring to the participants as actors with the environment, should be embedded within the teaching and learning context, rather than individuals being seen as separate from the environment. Agents are considered “higher level amalgams or constellations of cognition, affect, and motivation that act as ‘wholes’” (Dörnyei, 2009a, p. 235). It is essential to reveal how individual enacts their *agency*. Agency was defined as “the socioculturally mediated capacity to act” (Ahearn 2001, p. 112). That is, learners “are not simply passive or complicit participants in language learning and use, but can also make informed choices, exert influence, resist (e.g.,

remain silent, quit courses), or comply” (Duff 2012, p. 413). Therefore, learners’ process of exercising their agency provides a way to specify how they make choices moment by moment, such as choosing to speak up or to remain quiet. Meanwhile, the emerging *environment* will have an impact on learners’ decisions and behaviours as learners are socioculturally mediated.

The *environment* is not a stable background external to the individual in influencing agents’ decisions or behaviours. Instead, the environment includes the affordances of SCOLT, the potential challenges of internet connection, the background visible on the screen, the skills of the participants to make use of the affordances, all of which can lead to change in the process of co-adaptation between the individual and the environment (Larsen-Freeman & Cameron, 2008a). In the SCOLT model, the videoconferencing platform and the emergent elements of the relationship as the parties interact together are included in the environment. The *language* used is driven by learners’ actual and self-perceived language proficiency and the ability of tutors to adjust to that and recognise where extension is possible. That is, language is not just what learners or teachers have in their head, Chinese in this case, but what they are willing to or have the confidence to produce in this environment and with their tutor. In addition, the tutor is judging whether there are actions they can take to expand that learners’ WTC.

3.3.2 The empirical research

The SCOLT model developed by White et al. (2020) provides useful conceptual and practical tools to guide enquiry into and practice within one-to-one synchronous online language teaching via videoconferencing. Dai (2022) situated her study in a SCOLT setting to investigate teachers’ agency and teacher awareness of the affordances and emergent complexities of those environments. She found that tutors in online teaching need to be equipped with four competencies: multimedia competency, pedagogical competency, social-affective competency and the competency of being reflective and

reflexive. Her study also showed that many factors, such as perceived social hierarchy, teachers' relationships with peer teachers and the learners, and so on, would empower or hinder tutors' actions.

Zheng et al. (2023) analysed examples of interactions from six rounds of SCOLT sessions to reveal how learners interacted with their paired tutors and crossed their Zone of Proximal Development (ZPD) to internalise the language. Their results identified that learners' proficiency in spoken Chinese showed improvement. Skyrme et al. (2023) analysed recordings and transcripts of SCOLT sessions for two different matchings with a particular focus on the language/agent/environment interface to show that very different manners of working together could emerge in response to these differences. Despite the variations, these different matchings still resulted in satisfying learning partnerships advancing learners' goals. There was one learner participant who appeared to have quite low WTC, and her tutors responded by limiting the communicative leap for her, providing careful scaffolding such as questions that could be largely repeated in the answer, or giving a lot of attention to form before asking her to apply the language in focus to her own life.

However, despite the previous studies collecting data on learners' background information via questionnaires and their feedback after each session, there is a need to explore learners' voices in the SCOLT project since a commitment to attend SCOLT sessions represents a considerable investment of self and time, and it is important to optimise its outcomes. While the overarching goal of maximising learners' interaction opportunities in the SCOLT environment is to improve learners' communicative competence and confidence in speaking Chinese, spontaneous and sustained communication in Chinese is not always ensured. It has been observed that when an opportunity is given, some students make use of it and speak up, while others give up and keep silent (MacIntyre, 2007; MacIntyre et al., 1998). Learners should not only be given opportunities to interact, but ideally they should be willing to take advantage of

them because a lack of willingness inhibits effective interaction and language production. Therefore, it is vital to investigate this intention to engage or not in communication in this situation.

3.4 Summary

In this chapter, following the detailed review of the conceptual development and relevant research of L2 WTC in F2F situations, I extended the review of the study of L2 WTC in digital settings with a focus on one-to-one SCMC. The SCOLT model was reviewed in shaping this study into learners' WTC at micro and macro levels, respectively, referring to over a series of sessions (Level 1), within an individual session (Level 2), and at per-second basis communication events (Level 3).

Chapter 4 Methodology

This chapter describes the research design and methodology utilised in this study to investigate the WTC of participants over several sessions of one-to-one online Chinese study. It begins with the initial research design detailing the choice of a longitudinal case study, research questions, instruments planned for use, and related ethical considerations (Section 4.1). Section 4.2 provides an overview of the flow of overall research designs. The pilot study and the first revised research design are introduced in Section 4.3. The main study which comprised two phases, was conducted in two different research designs, so this section will begin with phase 1 initial implementation and then show changes that were made and the reasons for the second revision of the research design. The final emerging instruments and data collection procedure in phase 2 based on the research plans are also outlined in Section 4.4. Section 4.5 concludes with the data analysis procedures and demonstrates how they were carried out.

4.1 Initial Research Design

4.1.1 Design frame: A longitudinal case study

Acknowledging the complexity and changing nature of WTC and the variety of potential influences on it, this study employs a longitudinal case study approach (Duff, 2018) with a focus on four cases. It aims to examine the dynamic nature of WTCC and to uncover the underlying factors affecting WTCC in a SCOLT environment. Taking the case study approach reminds me of the story of Procrustes.

Procrustes was an inn-keeper in Greek mythology who, in order to make the travellers fit in his bed, cut the limbs of those who were too tall and stretched those who were too short. But he had the bed fitting the visitor with total perfection. (Taleb, 2012, p. 109)

The Procrustean refers to the treatment of an organism as simple and unvarying, which is a kind of simplification, approximation or reduction. This opinion echoes Ushioda's

concern about the depersonalisation of treating language learners as an abstract bundle of variables (Ushioda, 2009, 2011). A case study recognises the unique quality of each situation, providing an intensive study of “the background, current status, and environmental interactions” of an individual, a group or an institution (Brown & Rodgers, 2002, p. 29). This means that the case study approach suits an investigation of a real-life phenomenon in a particular context at different timescales. Researchers can undertake an in-depth investigation of the interdependencies of parts and patterns that occurred to understand each case and explain why things happen (Mackey & Gass, 2015; Sturman, 1999).

In this sense, adopting a longitudinal case study can satisfy the purpose of the present study exploring the dynamic and complex WTCC construct as situated in the SCOLT environment, which is particularly accordant with my research focus in thinking of WTCC phenomena through the following ways. First, a longitudinal case study enables me to gain a rich and in-depth understanding of changes in learners’ WTCC. Learners’ decisions to talk or be quiet are in a state of flux in response to the interplay among their internal and external factors. Therefore, case studies are recommended as appropriate for the exploration of a particularly complex system, because they can provide both quantitative and qualitative data to provide in-depth understanding of learners’ WTCC, since they include multiple data sources such as recordings and transcriptions of multimodal learning sessions and interviews.

Second, a case study allows me to investigate the uniqueness of the individual’s WTCC through engaging learners in the SCOLT-WTCC actual communication practices, and how they interpret their communicative intention and behaviours. Learners with different learning and lived experiences may perceive the situational influences differently. Thus, there is a need to examine specific instances of communication processes in detail at the individual level to gain a better understanding. In addition, a relatively long timespan or timescale is necessary to explore the trajectory of individual

learners' WTCC throughout the SCOLT-WTCC project with an aim to achieve an in-depth and holistic understanding of WTCC.

Although the case study research “presents a contextualised human profile” (Duff, 2014, p. 233), Stoyloff (2004, p. 380) argues that case study methods can lead to “unwarranted claims based on spurious interpretations of data” and thus could reduce the trustworthiness of the complexity in a case. To increase credibility, the present study used a triangulation of methods, data, multiple viewpoints and timescales (Sturman, 1999). Another common criticism of case study research is the generalizability of the findings. It is argued that the results are solely valid for the participants and not for populations or contexts if only one or a small sample size of cases is investigated. Although not generalisable to “populations or universes”, case studies are “generalisable to theoretical propositions” (Yin, 2008, p. 15). For this study, case studies can contribute to understanding a phenomenon, WTCC in this case, in-depth in a real-life context, which “retains the holistic and meaningful characteristics of real-life events” (Yin, 2008, p. 18). Thus, this study adopted a longitudinal case study approach, which enabled the researcher to uncover the nature of WTCC and the complex interconnectedness among factors underlying WTCC. This study could inform and contribute to pedagogic shifts of personalised learning in language education.

4.1.2 Research questions

This study examined the complex dynamic nature of WTCC during SCOLT-WTCC sessions based on a negotiated syllabus. Adopting a Complex Dynamic Systems Theory (CDST) lens (Larsen-Freeman & Cameron, 2008a), I wished to gain a better sense of how learners' participation in the sessions may have been shaped by the spatial and temporal micro- and macro-levels of their here and now intention and action (White et al., 2020). Bearing in mind the painting of a more holistic picture of learners' WTCC and, in this way, expanding the theorizing of WTCC, I formulated the following

research questions:

- i. What are the general WTCC profiles of learners over the SCOLT program? How does learners' WTCC change and fluctuate during L2 communicative activities across different timescales?
- ii. How can WTCC be effectively measured / researched over an attenuated period and in multiple encounters?
- iii. How do teachers' and learners' perceptions of WTCC fluctuations align or diverge?

4.1.3 Instruments

I have two sections on Instruments. I will first describe the instruments applied to in the initial research design as shown in Table 4.1 and the final emerging instruments will be reported in Section 4.4.5.

Table 4.1

The flow of the initial research design and the instruments

Timeline	Instruments	
Before SCOLT-WTCC	Questionnaire	
During each session	ZOOM Video - Recordings	
After Session 1	Session-based WTCC scale	
After Session 2	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)
After Session 3	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)
After Session 4	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)
After Session 5	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)

According to Yin (2009), a carefully conducted case study should derive data from multiple sources of evidence, ensuring that the study is as robust as possible. Therefore,

this study collected data as shown in Table 4.1 through a questionnaire, a Session-based WTCC scale, video recordings, and the idiodynamic method. Furthermore, since each case consisted of a learner matched with a tutor, multiple perspectives were possible to provide a more comprehensive picture of WTCC: self-ratings of WTCC by learners, ratings of learners' WTC by tutors, and interpretations from both sides. These research methods would provide a deep understanding of learners' perceptions and experiences of how their WTCC emerged in the SCOLT environment.

4.1.3.1 Questionnaire

The questionnaire (see Appendix A) consists of five main sections, a demographic information section, and four scales comprising 48 items. The four scales were used to measure the learners' perceptions of their trait-like WTC in Chinese and affect factors mediating their WTCC: anxiety, self-perceived communicative competence, and motivation. It would be administered to learner participants one week before SCOLT started to provide the paired tutors with learners' background information and enable their paired tutors to design teaching sessions better accordingly and better involve students into the communication.

Previous researchers found it useful to use a questionnaire to achieve the dual purposes of providing learners' background information and of better understanding learners' characteristics before conducting research on WTC dynamics (MacIntyre & Legatto, 2011, p. 156; Wang, 2019). In terms of the variables that could be relevant to WTC, Elahi Shirvan et al. (2019) found three key variables influencing learners' WTC: motivation, anxiety, and perceived communicative competence using meta-analysis. Thus, the questionnaire in my study also explored learners' anxiety, self-perceived communication competence, and motivation to learn Chinese to better understand learners' general WTC in Chinese. The details of the questionnaire are as followed.

1) The demographic data section

Demographic information items developed by White et al. (2020) were used in this study to collect learners' personal information and deepen their understanding of participants' Chinese learning experience. They elicited names, ages, gender, Chinese learning experience, reasons for learning Chinese, how they like to learn Chinese and self-rated Chinese proficiency level. Individual learners' demographic information was sent to the paired tutors before the first SCOLT-WTCC session so that the tutors were able to capture basic information about their learners.

2) Willingness to Communicate in Chinese (WTCC)

As described in McCroskey and Baer (1985), the original WTC scale created 20 items (including eight filler items) to measure WTC in L1, covering a variety of situations. These situations included items about three main audience types (friends, acquaintances, and strangers) combined with four communication context types (dyads, small groups discussion, meetings, and public speaking) to measure participants' predisposition to be willing or unwilling to communicate in their L1. This study was influenced by Liu's (2017) work by developing the original L1 WTC questionnaire to measure learners' WTC in Chinese. Liu's (2017) questionnaire about learners' WTC in Chinese provided support for this scale's validity and reliability in this study. As a result, I chose to adapt this scale for the study.

The current research used a 15-item Willingness to communicate in Chinese scale, which required the learners to indicate the percentage of time they would choose to communicate in Chinese. Twelve items were adapted from that developed and validated by McCroskey and Baer (1985), and three new items related to CMC (computer-mediated communication) were added to the scale.

As this study relates to Chinese online language learning in order to align with the aims of the study, some modifications were made as follows: (1) the words “in Chinese” were added to each item (e.g., Talk with an acquaintance while standing in line in Chinese.); (2) as mentioned above, three items were selected and adapted from Mystkowska-Wiertelak and Pawlak (2017) to include CMC situations: these three items responded to the urgency of needs that this synchronous online communication was set to explore. Learners indicated their self-assessed percentage of time they would choose to communicate in the 15 situations using an 11-point scale ranging from 0%, 10%, and so on up to 100%, with the interval consistently 10%.

3) Self-perceived Communication Competence in Chinese (SPCC)

Following common practice in L2 WTC research (MacIntyre & Charos, 1996; Wang, 2019), the 15 items on the WTCC questionnaire were developed as the template scale to measure SPCC by repeating the items but changing the instructions. Learner participants were asked to respond to these items according to “*how well* you believe you can do it, not how willing you would be” on an 11-point scale from 0% to 100%.

4) The Chinese Speaking Anxiety Scale (CSAS)

Learners indicated their anxiety level in the same 15 situations on the WTCC questionnaire. The 11 points of the scale were labelled from 0% to 100%.

5) Motivation to learn Chinese in the process of learning

Motivation refers to an amalgamation of the learner’s desires, attitudes, and efforts which paves the way for more effortful and efficient learning. Three single-item measures with three components: desire to learn Chinese, motivational intensity, and attitude towards the learning situation. These have been widely used in L2 WTC studies (MacIntyre et al., 2003a, 2003b; Öz et al., 2015; Wang, 2019). Learners were asked to

indicate after each statement to which extent they believed the statement applied to them.

4.1.3.2 Session-based WTCC scale

I designed and distributed the Session-based WTCC scale (see Appendix B) to learners immediately after each session to measure the dynamics of learners' WTCC session by session. This method was an effective way to collect learners' individual overall evaluation of their WTCC in each session and allow researchers to trace learners' WTC general trend over a long period (Wang, 2019), in this case, over all the SCOLT-WTCC sessions of the round. Learners were asked to rate each session from 1 to 100 to demonstrate their self-satisfaction after each SCOLT-WTCC session.

4.1.3.3 The idiodynamic method

The idiodynamic method, developed by MacIntyre and Legatto (2011), was designed to capture the dynamics of the speaker's affective state, such as WTC, motivation, and enjoyment. Adapted from Rosenzweig's (1986) work on personality, the term idiodynamic refers to the dynamic changes within an individual as an event which unfolds. To investigate how and why individual L2 learners' WTC changes moment by moment, MacIntyre and Legatto (2011) used the idiodynamic method. This mixed-methods approach combines streams of quantitative data with qualitative interpretations.

The idiodynamic method conducted by the researcher provided data to answer how individual learners' self-rating WTCC fluctuate moment by moment and whether learners' perceptions (mis)match tutors' perceptions of their paired learners' WTCC. I planned to use this method individually with the tutor and learner participants after each SCOLT session, except for Session 1. Hubbard (2005) has indicated that computer-assisted language learning (CALL) is impacted by novelty effects. That means that

some novice users, tutors and learners, in this case, may feel frustrated as they are not familiar with this new environment, or they may feel excited about new technology rather than actually know the value of the tools. However, these initially (un)favourable results may not be sustained over time. For this reason, I hoped the tutor and learner participants would have tried the new environment in Session 1, and video recordings in Session 1 would have been used as a trial for the idiodynamic method.

This method consists of four key steps as shown in Table 2.1. Now I will explain how it was intended to unfold in my study.

1) SCOLT-WTCC video recordings

All SCOLT-WTCC sessions would be recorded with the permission of participants. The video recordings were the stimulus for the tutor and learner participants to idiodynamically rate learners' WTCC. They were also the sources for the researcher to conduct further stimulated recall interviews with the learners and tutors to understand insights of the situated context.

Tutor participants would record all teaching sessions by pressing the "Record" button to start recording using the built-in function in ZOOM and sending the recordings to the researcher immediately after each session.

2) Idiodynamic software: the rating of WTCC

Written for idiodynamic studies, Anion Variable Tester 2 (AVT2), this software captures the trajectory of moment-by-moment change of WTCC in the study on a second-by-second basis. Participants measured learners' WTCC in a range from -5 to +5 by using a mouse to click the "increase" or "decrease" button shown in the interface of this software (see Figure 4.1) while they were watching video recordings, spontaneously. This software featured an auto-zero function causing the rating to move one step toward zero per second if the users fail to click the mouse for one second. This

prompts participants to continue actively rating learners' WTCC and to constantly monitor the accuracy of WTCC levels shown on the visualisation graph of the screen. However, the format of video recordings generated by ZOOM is in the .mp4 formatted file, which is not suitable for the idiodynamic software Anion Variable Tester 2. Also, the length of each session was over 25 minutes which exceeds the software's limitation of 15 minutes. To tackle these limitations, I would edit the video recording of each session based on the requirements of formats and length of the video to be applied to the idiodynamic software. There would be two or three revised video recordings for each session.

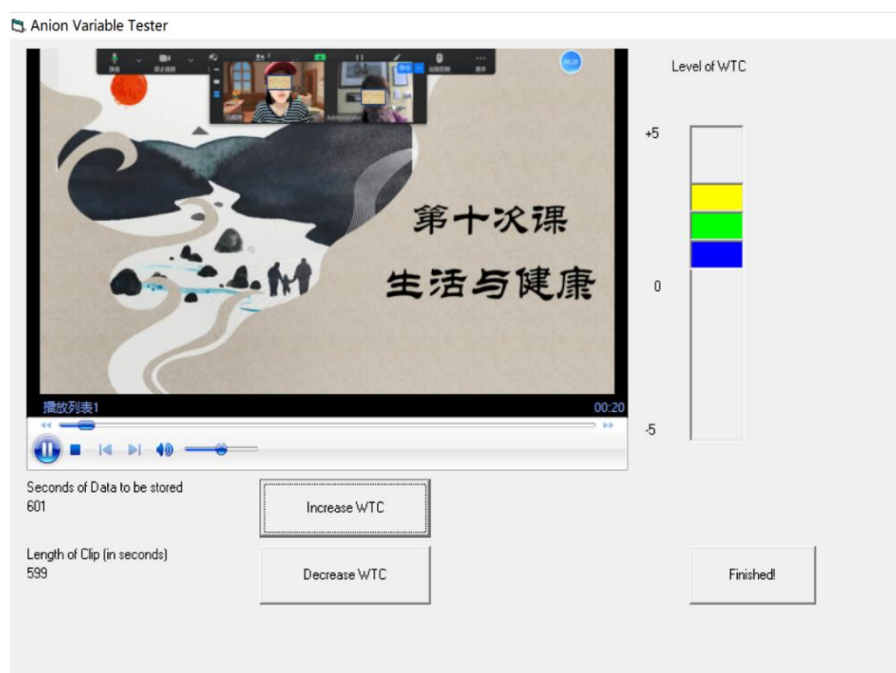
The AVT2 can record both the time data of video recordings and the learner's ratings of WTC simultaneously. The output from the software includes both a bitmap graph of the dynamic WTC ratings (see Figure 4.2) and an Excel-compatible spreadsheet with WTC ratings per second (see Figure 4.3), both directly linked to the video data. Figure 4.2 displays the idiodynamic graph from Jacob in the first part of Session 2. It shows fluctuations from 0'00 to 12'42 throughout the section, the first part of Session 2. In this study, time data will be presented in format 12'42 (the former refers to the minute, and the latter refers to the second, respectively).

3) Stimulated recall interview

The third step in the idiodynamic method is a stimulated recall interview (hereafter StRI), which was used to understand their reasons for rises and falls in the ratings and explore factors, including the interplay of the factors affecting learners' WTC. Typically, the StRI procedure involves video (or audio)-taping an event, such as a task or a lesson, and then playing the tape to the participants. It may be paused periodically by the interviewer or participants to discuss what the participants had been thinking about at that time (Mackey & Gass, 2016).

Figure 4.1

Using the idiodynamic application to self-rate WTCC



Mackey and Gass (2016) suggest that an audio or video of the event, written material, records of field notes, transcription of a conversation, or even computer-captured data can be stimuli in StRIs. Dörnyei (2007) recommends using video recordings as a stimulus for recalling thoughts since a video recording is superior to listening to an audio recording or looking at the materials. It is believed that video recording provides rich contextual information about the event and may help learners vividly remember the mental processes they were going through at that moment (Dörnyei, 2007). Video recordings would be ideal and desirable to provide stimuli to capture the natural interaction in the SCOLT sessions.

Figure 4.2

Jack idiodynamic graph in the first part of SCOLT-WTCC 2

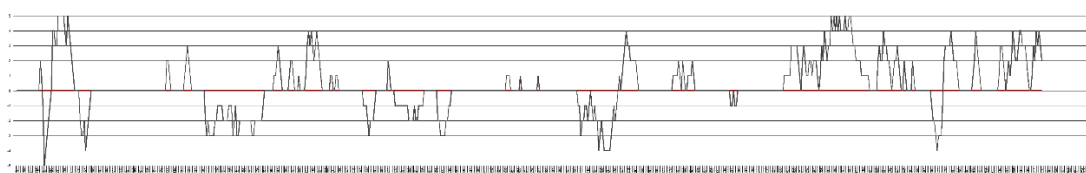


Figure 4.3

The screenshot of Jack's idiodynamic ratings in Excel-compatible spreadsheet in the first part of SCOLT-WTCC 2

	A	B	C	D	E	F	G	H
1	This program was generated by Anion Variable Tester v2.							
2	Created on 1.18 for subject Jack							
3								
4								
5								
6	Time	WTC						
7								
8	1	0						
9	2	0						
10	3	0						
11	4	0						
12	5	0						
13	6	0						
14	7	0						
15	8	0						
16	9	0						
17	10	0						
18	11	0						
19	12	0						
20	13	0						
21	14	0						

After receiving the tutor and learner participants' WTCC rating outputs, I interviewed them individually with stimuli, including video recordings of the session and a graph of dynamic WTC ratings sourced from AVT2. The researcher played back the video recordings for a second time, stopping at each point where participants' idiodynamic printout showed highs and lows in their ratings. Learners and tutors were interviewed to explain why it changed using English and Chinese, respectively.

To reduce the bias of the prompt questions (Friedman, 2011) and to help participants recall their thoughts for the reflections of WTCC at that moment, I made a protocol (see Appendix C) to familiarise myself with the process of StRI and remind myself of the prompt questions. This protocol involved the general questions and the main questions "what were you thinking at that moment" and "why did your WTC increase/decrease back then". If there were no responses from participants or reluctance to answer the

questions, participants would be told that “I do not know” was an acceptable and valid response.

4) Transcriptions

The final step is transcribing the SCOLT session recordings, idiodynamic ratings, and the StRIs for later analysis.

As shown in Table 4.1, the idiodynamic method would be used after each session, except Session 1. Reflecting on the intensely demanding nature of the SCOLT-WTCC sessions and the complexity for participants of operating the specially designed software, I decided that I needed to optimise conditions. Before attending the SCOLT-WTCC sessions, I would demonstrate to both learner and tutor participants how to use idiodynamic software, AVT2, in person. Then the participants would be provided with an operational definition of WTCC and a sample video to practice using AVT2 until they would feel comfortable with this data collection procedure.

As learner participants and tutor participants lived in different places, it was impossible for me to conduct the idiodynamic method for both in person. Thus, I decided to meet learners in person to reduce their workload using the AVT2 installed on my laptop, and they would do idiodynamic rating and StRI in close succession. For tutor participants, they would use AVT2 by themselves and send the idiodynamic ratings to me; then, I conducted StRI with them online. The idiodynamic method would be performed within 48 hours to avoid reducing the accuracy of recall over time.

4.1.4 Ethical considerations

Possible risks and concerns were carefully considered before undertaking the study. When conducting research, researchers need to protect participants’ integrity and the right to privacy (Trochim et al., 2016). Ethical practices and implications were carefully discussed with experienced researchers, including my supervisory’ panel and an

experienced researcher outside the panel. Ethics approval was granted by Massey University Human Ethics Committee (MUHEC, Ethics Notification Number: 4000021961) (see Appendix D), and this study was assessed as low risk.

Throughout the study, ethical principles were adhered to, from research design to the dissertation's data collection, analysis, and writing. It was critical to obtain consent from all participants. All participants were informed they had the right to voluntarily decide if they would like to participate in the study, and they also had the right to withdraw from the study at any stage. I emailed information sheets to each participant to help the participants better understand the possible consequence of being part of it. There were separate information sheets as different roles would be taken for learners (see Appendix E) and tutors (see Appendix F). Participants who agreed to be part of this study were requested to sign the consent forms (see Appendix G).

Other issues related to the privacy and confidentiality of the participants were at the forefront of the study. All data in this research conformed to principles of confidentiality, and pseudonyms for participants are used in the study. Data obtained and transcripts from video recordings and interviews were stored securely in the researcher's private computer. Any information was only accessible by password. I was also conscious of the findings that the screenshots with participants' images from SCOLT-WTCC sessions would be presented in my study. Even though this was informed in the consent forms and information sheets, I emphasised this concern separately in correspondence with them and gained their separate consent to use these screenshots.

I was also aware of my role in this study, as a distributor of questionnaires, one of the facilitators in training workshops, an interviewer, and even a potential resource for the tutors and the learners, as they asked for my suggestions for teaching and learning. Therefore I decided to adopt "empathic neutrality" as much as possible as Patton (2002, p. 49) proposed. Given the nature of the qualitative longitudinal research design, I

attempted to achieve a balance between being as objective as possible with my interviewees and establishing a rapport that made participants comfortable talking and sharing with me (Cohen et al., 2018). This required an ongoing role negotiation.

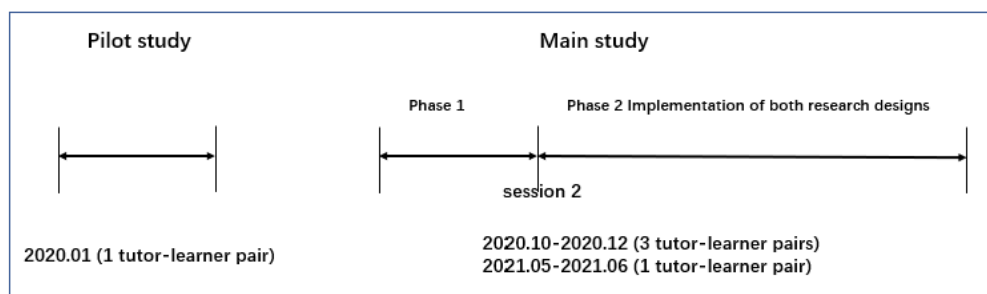
Other concerns for qualitative researchers regarding the role are the negotiation of admission to and exit from the research site. As I intended to meet learner participants in person to conduct interviews, I negotiated a place with learners where we felt comfortable and safe.

4.2 An Emerging Research Design

The study consisted of a pilot study and two phases of the main study (see Figure 4.4). The pilot study took place in January 2020, before the outbreak of COVID-19. One dyad of a learner and a tutor participated voluntarily. In response to the issues found in the pilot study and the limited travelling during COVID-19, I spent another eight months revising the initial research design and decided to move data collection fully online.

The main study took place in October 2020, and it was divided into two phases (see Figure 4.5) as an issue occurred because the AVT 2 software proved to be incompatible with Windows programs on some of the participants' computers and could not be successfully installed on them. In addition, a strong desire to have more sessions from two learners required me to provide another choice for them, that is *the second revised research design*. Hence, both the online research design and the second revised research design were implemented depending on learners' choices after Session 2. One learner chose online research design, and two learners chose the second revised research design. The last learner who took part in this study from May to July 2021 also chose the second revised design. More details about research designs and data collection will be reported in the following sections.

Figure 4.4
Timeline for data collection



4.3 Pilot Study

Since no other studies had been done using the idiodynamic method for an online environment at that time, I decided that it was important to conduct a pilot study. So, the purpose of the pilot study was to examine and, if necessary, refine the instruments and data collection plans concerning the data content and the procedure to be adhered to. As such, it was intended to ensure that the sources of data for the main study would be rich enough to provide a thick description of the WTC phenomenon. These data sources comprised the questionnaire, Session-WTCC rating, and the idiodynamic method.

4.3.1 Participants in the pilot study

The pilot study was conducted with one dyad of participants: one tutor and one learner. The learner, Jacob (pseudonym), was recruited from a third-year Chinese acquisition course at MU, which was evaluated as advanced level according to MU placement. He had previous experience studying Chinese in China for one year in 2016, he returned to NZ and learned Chinese at MU. In 2018, he had a chance to join a six-week study tour to learn Chinese at Peking University, one of the top universities in China and globally, after he had been studying at MU.

I met Jacob in a distance class I was tutoring for MU in 2019. I asked him if he would like to help me in my research study and sent him a participant information sheet

through WeChat, a social media site popular in China. He was assured that his participation was voluntary, and the study was not part of his course. He was willing to participate and sent me messages to arrange a time and hand in the signed consent form. When taking part in the pilot study, he worked at a large international NZ-based kiwifruit company, meanwhile taking up distance Chinese courses at MU.

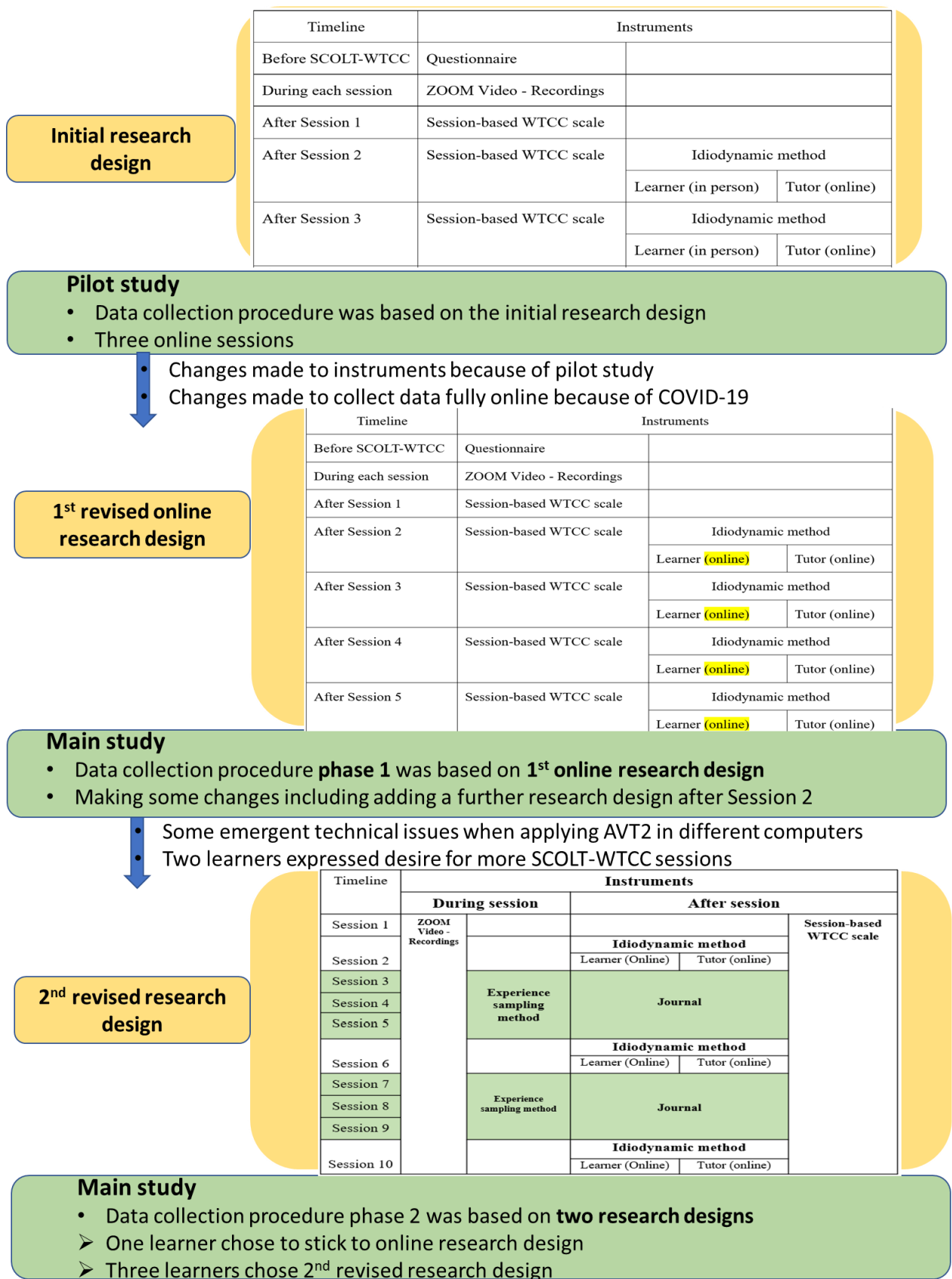
The tutor, Xiaojie (pseudonym), was a PhD student in applied linguistics at MU, and she had taught Chinese in Thailand. Since the beginning of the SCOLT project, she had been trained in the SCOLT program in 2016, had taken several rounds of the SCOLT teaching sessions, and conducted her PhD research in the one-to-one SCOLT environment. Her rich experience and knowledge in SCOLT teaching and research would better facilitate interaction for this pilot study so that the learner could potentially demonstrate his WTCC.

4.3.2 Data collection procedure in the pilot study

The researcher briefly introduced the study to the student in WeChat and the tutor in person, respectively. Both student and tutor indicated their willingness to join this study. Jacob was asked to complete the questionnaire (see Section 4.1.3.1) one week before SCOLT-WTCC began. Jacob's demographic information was sent to his tutor to provide her learner's general background information.

Before attending the SCOLT sessions, I travelled to Jacob's workplace to demonstrate the procedure. He was provided with an operational definition of WTCC (see Appendix H) and a sample video to practice using AVT2 until he was comfortable with this data collection procedure. As mentioned in the participants section, the tutor was familiar with the idiodynamic method and was provided with all the support that she needed to use it.

Figure 4.5
The overall research design of the research study



The data collection, as planned in the initial research design for the pilot study, took place in January 2020. There were three sessions, and each session lasted 25 minutes. Here is the step-by-step procedure (see Table 4.2) in the pilot study.

Table 4.2

The flow of the pilot study

Timeline	Instruments	
Before SCOLT-WTC	Questionnaire	
After Session 1	Session-based WTCC scale	
After Session 2	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)
After Session 3	Session-based WTCC scale	Idiodynamic method
		Learner (in person) Tutor (online)

In the first session, Xiaojie and Jacob socialised with each other. The tutor tried to establish a rapport with the learner to know more about his needs and wants. Jacob indicated his Session-WTCC after each tutorial. The tutor video-recorded all the SCOLT sessions.

The idiodynamic method was applied for both tutor and learner within 48 hours of Sessions 2 and 3. As soon as completing the second tutorial, the tutor sent me the video recording. I converted the original video to .avi format and cut it into two parts using *Format Factory* software. Each part was under 15 minutes.

I then went to Jacob’s workplace and asked him to rate his WTCC in the second session using AVT2 installed on my private computer. For the tutor, I sent her edited videos to ask her to rate on her own computer and send the idiodynamic outcome back.

I conducted the StRI with Jacob in person after he finished the ratings and printed the graphs out. For the tutor, after I finished the idiodynamic method with Jacob, I

conducted the StRI with her on ZOOM, where we could share the screen and rewatch the tutorial videos together. Because of the touch screen functionality in my computer, I could easily zoom in or out of the graph showing the screen. After Session 3, the same procedure of idiodynamic method was employed to Jacob and Xiaojie

4.3.3 The first revision of the research design as a result of piloting and the COVID-19 pandemic

Two factors led to the revisions of the initial research design. First of all, the pilot study raised practical implications that needed to be taken into account. Secondly, the onset of COVID-19 very soon after the completion of the pilot sessions imposed the need for further changes.

The pilot study revealed interesting and in-depth findings. However, informed by the participants' feedback and observations of the overall research procedures, a number of changes were deemed necessary before data collection methods could be employed in the main study.

The study adopted the second-by-second idiodynamic rating method (see Section 4.1.3.3) to investigate the factors shaping participants' WTCC over time. In the previous studies using this method, researchers (Gregersen & MacIntyre, 2017; Gregersen et al., 2014; MacIntyre & Legatto, 2011; Wood, 2016) asked their participants to recall the whole communicative tasks, which generally lasted only a few minutes. However, each session in my study lasted 20-25 minutes, so it had to be divided into two parts due to the time demands of AVT2 software. In the pilot study, the student was obviously active in recalling what happened in his mind in the first part but was reluctant to talk about his thoughts in the second part. Although there was enough WTCC information, I couldn't confidently make claims to the findings I got, as the learner appeared to be getting tired or bored in the second part.

Regarding StRI, Jacob mentioned that he was very familiar with what happened in the sessions because of the short period between the idiodynamic method and SCOLT-WTCC sessions. While rating the whole session using the special software, he had watched the video recordings. Thus, he said he had a fresh memory of the session, and there was no need for him to watch the entire video recordings when conducting the StRI. He suggested I only need to replay some salient moments in future research if needed.

Thus, I decided to change the procedures in the main study. After finishing the self-ratings of WTCC using AVT2, learners would be asked to choose one or two moments for each part (every session has two or three parts) to recall what happened at that time. The researcher would also select one or two to get more information if needed.

However, following the completion of the pilot study, I returned to China for a short break for the lunar new year holiday. While I was away, the COVID-19 pandemic outbreak occurred, and I could not go back to NZ as NZ closed its borders to travellers from China. Therefore, using the idiodynamic method with the learner participants in person and training the tutor participants in person became impossible. In response to the COVID-19 impact, I spent eight months revising the research design by moving data collection and training sessions online, either with tutors or learners (see Figure 4.6).

Several limitations had to be overcome. First, as the AVT2 software was only suitable for Windows-based computers, I intended to recruit participants who had or could find a Windows-based computer that could install AVT2. As not all participants would have Windows-based computers, and not all Windows-based computers could support AVT2, I prepared an alternative, which was to replace the idiodynamic method with the experience sampling method, which is another way to ask learners to record the

fluctuations of their WTCC during the performance of a communicative task (more details will be reported in 4.4.5.2).

Second, my original plan was to employ the idiodynamic method with learner participants in person, using AVT2 installed on my personal laptop to reduce their workload. The learner participants could then have been interviewed immediately after completing their ratings of WTCC. However, it was too intensive to stay focused in an online environment for that length of time. Therefore, I would demonstrate how to install and use AVT2 online with the participants individually and guide them to use this software, so they could rate their WTCC using AVT2 themselves after receiving edited video recordings, using the same procedure which the tutor in the pilot study had done. After completing the ratings, tutors and learners would send the rating results, including WTCC graphs and Excel sheets, back, and the researcher would arrange a time to conduct the StRI with the learners first and then with tutors individually. Given the practical complexity of the idiodynamic method, more precise preparation for the workshops was required. Having prepared for these changes, I now entered phase 1 of the main study.

Figure 4.6

The first revised online research design

Timeline	Instruments	
Before SCOLT-WTCC	Questionnaire	
During each session	ZOOM Video - Recordings	
After Session 1	Session-based WTCC scale	
After Session 2	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 3	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 4	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 5	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)

4.4 Main Study

4.4.1 Participants

In the main study, I was planning to find four learners who have intermediate to advanced Chinese proficiency level. Learners with a relatively low level of language competence are more likely limited by constructing or co-constructing meaningful dialogues (Stickler & Shi, 2013). In this sense, I needed learners who were able to speak freely and make conversation easily because I was interested in investigating the dynamics of learners' WTCC and the possible reasons for the trajectory of learners' WTCC in the SCOLT setting, the focus of my study was on learners' WTCC in communicating with their paired tutors.

A convenience sampling strategy (Dörnyei, 2007, p. 98) rather than a random sampling strategy was drawn in this present study. As suggested by Dörnyei (2007), convenience sampling refers to the members of the target group being selected if they meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study.

First, I started to recruit participants in September 2020. I asked one of my supervisors, who is an experienced Chinese language lecturer, to help me send an email attached with a participant recruitment poster (Appendix I) to potential participants. All the participants were assured that their participation was voluntary and confidential. Learners who were willing to take part emailed me or sent me a message through WeChat to arrange an online interview to introduce the details of this study and collect the completed Questionnaire and Consent Form with a digital signature. Four learners confirmed they could take part, but one learner could not access AVT2 and left after the first session. The data from this participant's session was not included in the study. Three learners who took part in 2020 were paired with their tutors and undertook their sessions in late 2020. In 2021, another learner from the Chinese studies program at MU

was recruited via email by one of my supervisors. Table 4.3 provides some basic information about each participant.

Table 4.3

Background information of learner participants in the main study

Pseudonym	Mother tongue	Gender	Age	Professions	Participation time
Ella	English	F	24	Advertising clerk	Sep.2020-Dec.2020
Dan	English	M	30	English teacher	Sep.2020-Nov.2020
Tony	English	M	32	Pilot	Sep.2020-Dec.2020
Vicky	Ukrainian	F	39	Entrepreneur	May.2021-Jun.2021

Note: All the participants were assigned a pseudonym to protect their anonymity.

As was the case with several previous rounds of SCOLT, learners in this study were from diverse professional backgrounds. They have different language proficiency levels, different motivations to study Chinese, different needs and so on.

Tutors

As the SCOLT project is a partnership between MU and the BLCU, it would be ideal for all the participants to be from these institutions. I recruited four tutors from BLCU after I had obtained approval from MUHEC in 2019. However, due to the delay of my study caused by COVID-19, they did not have much time to attend to my research when I began collecting data. Therefore, I had to recruit tutor participants.

I posted a tutors' recruitment poster (see Appendix J) in my WeChat Moments. Moments is a function built-in in WeChat, also named *friends' circle*, in which users can share or be shared information with accepted friends in their own accounts. My teachers and friends forwarded this poster to some potential participants. Two tutors from BLCU and two from Sichuan Normal University, all postgraduate students, were

chosen. Because one student participant dropped out during the research, the paired tutor also dropped out. In 2021, one of the tutor participants was recruited again to conduct SCOLT-WTCC teaching sessions. Further background information about each tutor will be provided in the findings chapters. Table 4.4 illustrates the pairing result.

Table 4.4

SCOLT-WTCC tutors and learners pairing in the main study

Teacher	Chaonan	Jiyao	Yating	Yating
Learner	Dan	Tony	Ella	Vicky
Participation period	Sep.2020- Dec.2020	Sep.2020- Dec.2020	Sep.2020- Nov.2020	May.2021- Jun.2021

4.4.2 Preparation stage

Before SCOLT-WTCC practice started, several online workshops were designed to help tutors obtain knowledge of online teaching, learners' WTC, and the idiodynamic method; the learner participants were also provided with training workshops in using AVT2 and ZOOM software.

4.4.2.1 Learner training sessions

Since the outbreak of COVID-19, online language learning has become more important and normalised worldwide. However, not all participants were prepared for a new online learning environment. For example, one learner had not used ZOOM before. Therefore, learner training sessions were designed to reduce the cognitive load on learners in using technology, ZOOM in particular, and help learners better understand the SCOLT program. The training sessions were also designed to demonstrate how to use AVT2 software and the concept of WTCC. Two training sessions were conducted online using ZOOM in English for each learner, each lasting 45 minutes. The content of the training is listed in Table 4.5.

4.4.2.2 Tutor training sessions

Tutors' preparation workshops were inspired by the Cooperation-based Cognition, Action and Reflection (CoCAR) model (Lan et al., 2012) and the SCOLT model (White et al., 2020). Both models emphasised the importance of knowledge of online language teaching for tutors to ensure that they could apply the knowledge into teaching practice smoothly, overcome technical problems, and deal with emerging issues.

Thus, I designed three workshops and established a teacher community using the WeChat group. First, I invited one of the SCOLT project leaders, who is also one of my supervisors, to deliver one preparatory session, including the characterises of SCOLT, the principles of the SCOLT program, teaching online skills, and a negotiated curriculum. In this session, tutors were also provided with an option to use task-based instruction in their future SCOLT teaching practice.

Table 4.5

Learner training plan

Training sessions for learners	Objective
<p>Session 1 (45 minutes)</p> <p>SCOLT project:</p> <ul style="list-style-type: none"> • The nature of SCOLT- one-on-one; online; personalised; length of each session; flexibility. • Negotiated curriculum. <p>Communication software (ZOOM):</p> <ul style="list-style-type: none"> • Create and join a ZOOM meeting • Recognise the interface and typical features of ZOOM 	<ul style="list-style-type: none"> • To acclimatise learners to the SCOLT project • To encourage learners to actively co-construct their class with the paired tutors • To equip them with skills using ZOOM
<p>Session 2 (45 minutes)</p>	

<p>Important concepts: WTC</p> <p>Idiodynamic software (AVT2):</p> <ul style="list-style-type: none"> • Demonstrate participants how to use AVT2; • The time limitation of video available AVT2; • Learners practice using AVT2 	<ul style="list-style-type: none"> • To build up learners' confidence using AVT2 on their own. • To help learners avoid frustration and feel comfortable in using AVT2
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Second, I introduced my personal teaching experience in the SCOLT environment. One SCOLT session sample video was played by me, expecting it would facilitate their discussions of online teaching and their teaching preparation. I also illustrated some problems they might encounter and encouraged them to discuss strategies to deal with them.

Third, the primary objectives of this session were to equip tutors with basic skills using ZOOM and AVT2. Through this session, tutors could build their confidence and expertise using ZOOM to conduct their teaching and record each session. They could also use AVT2 to rate the paired learner's WTC.

4.4.3 Phase 1 Data collection procedure

After obtaining consent from all participants, this study began in October 2020. Four tutor participants were provided with training sessions together using ZOOM and four learner participants attended training sessions individually using ZOOM. One week before the SCOLT-WTCC teaching practice started, the learner participants completed the questionnaire (see Section 4.1.3.1). Then the learners' questionnaires were sent to the paired tutors to help them better understand their learners. I suggested the tutors contact their learners and build rapport in advance. Four learners began their SCOLT-WTCC session using ZOOM at the beginning of November 2020. In the first *Break the Ice* session, tutors were encouraged to establish a rapport with their learners by

introducing each other and negotiating what topics they may be interested in. Video recording from this session was also used as a trial to test AVT2.

After the first session, learners filled in the Session-based WTCC scale and emailed me back. Then learners and tutors were asked to practice the idiodynamic method using the edited video recordings in Session 1; all participants used their videos to test AVT2. Some unexpected technical issues occurred. One learner participant tested AVT2 on three Windows-based computers, but all failed, so she quit along with her paired tutor.

Another unexpected technical issue was related to the length of the edited video recording for idiodynamic rating. Although AVT2 was designed to work over 15 minutes, and the edited videos were all under that length, in fact Dan and Ella found that the software crashed after around 11 minutes 30 seconds when they went through the video recording of Session 1. Tony, the other learner who did not have a Windows-based computer, went to one of my supervisors' offices to conduct the idiodynamic method after his second session. He faced the same technical issue, so my supervisor took a strategy by asking Tony to rate just the first 10 to 11 minutes of each edited recording for Session 2. This strategy was also applied to Dan and Ella in their second session. I had not expected this emergent technical issue with different computer systems, and I did not have much time to respond appropriately due to the short interval between the first two SCOLT-WTCC sessions.

One other change arose though out of the success of the sessions, rather than the challenges as a result of this sudden technical issue. Soon after beginning SCOLT-WTCC, Tony and Ella, expressed their strong willingness to have more SCOLT-WTCC sessions to practice their Chinese. In a corresponding email, one student even mentioned, "every day I get to practise speaking Chinese is a great day". Although there was a technical issue, learners were still very willing to participate. I made some changes for the research design after Session 2 (see Section 4.4.4).

4.4.4 The second revision of the research design in response to the first implementation

As mentioned in section 4.4.3, technical issues were ongoing and recurring in this data collection process from failure to install the software to challenges arising from the length of recordings. Thus, the length of edited video recordings needed to be under 11 minutes in order to meet AVT2's requirement in practice.

On the other hand, as two of the learners have made a request to increase the number of sessions, I then discussed with their paired tutors whether they had time to take more SCOLT-WTCC sessions. The tutors were happy with the sudden increase in the number of sessions but felt it would be demanding if they had to conduct the idiodynamic method for each session. Therefore, I provided two options for the learner participants to choose from: one was the first revision of the research design (see Table 4.6), and the other was a further revision of described below (see Table 4.7). Dan chose to maintain the first data collection procedure: five SCOLT-WTCC sessions in total, Session-based WTCC scale related to each session, and the idiodynamic method after each session except Session 1.

The other two learners who expressed a desire to have more SCOLT-WTCC sessions chose the second revised design that has ten sessions in total with three idiodynamic sessions (Sessions 2, 6, and 10) and seven non-idiodynamic sessions. In order to reveal the trajectory of SCOLT-WTCC, Sessions 2, 6, and 10, which are approximately in the beginning, in the middle, and at the end of SCOLT-WTCC, need to be conducted using the idiodynamic method. While the rest of the sessions, except the first session, need to be conducted using ESM (WTCC grid in this study) and journals (see Table 4.7). Vicky recruited in 2021 also chose the new research design.

Table 4.6*The flow of the first revised online research design*

Timeline	Instruments	
Before SCOLT-WTCC	Questionnaire	
During each session	ZOOM Video - Recordings	
After Session 1	Session-based WTCC scale	
After Session 2	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 3	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 4	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)
After Session 5	Session-based WTCC scale	Idiodynamic method
		Learner (online) Tutor (online)

Table 4.7*The flow of the second revision of the research design*

Timeline	Instruments		
	During session	After session	
Session 1	ZOOM Video - Recordings		Session-based WTCC scale
Session 2		Idiodynamic method	
Session 3		Learner (Online) Tutor (online)	
Session 4		Experience sampling method	Journal
Session 5			
Session 6			
Session 7		Learner (Online) Tutor (online)	
Session 8		Experience sampling method	Journal
Session 9			
Session 10			
	Learner (Online) Tutor (online)		

4.4.5 Instruments in the main study

In the following parts, I describe the instruments as they finally emerged for the study and explain why I chose those methods, including the Experience Sampling Method added later during the initial implementation of SCOLT-WTCC practice. I also illustrate how I was planning to adjust and conduct an idiodynamic procedure with learner participants online.

The tools and procedures used in pilot study proved adequate for data collection, and I planned to keep employing these instruments in the main study (see Table 4.6). As there was no change for the questionnaire and Session-based WTCC scale (see Section 4.1.3.2), here I do not report further on them but describe the adjustment to the implementation of the idiodynamic method. Due to the demands of the idiodynamic method for participants and the increasing difficulty in conducting the idiodynamic method online with learner participants, some changes were made when employing the method.

4.4.5.1 The idiodynamic method and how it was adapted

Based on the procedure of the idiodynamic method in the pilot study, here I only report what I planned to change.

1) SCOLT-WTCC session video recordings

The paired tutor recorded each SCOLT-WTCC session, and the video recording was sent to me immediately after each session was completed. I edited each video recording to meet the requirement of AVT2 in practice. Usually, each session was cut into two or three parts and the length of each part was under 11 minutes rather than 15 minutes; each part was named according to this format 2-1, 2-2, 2-3 (the former number refers to the particular session, and the latter number refers to the part, respectively). Then

these edited video recordings were sent to learners and tutors within four hours of finishing each session.

2) Idiodynamic software: ratings of WTCC

Learners and tutors were asked to measure learners' WTCC using AVT2 installed in their computers and sent the outputs back, including bitmap graphs of the dynamic WTC ratings and Excel-compatible spreadsheets generated from AVT2.

3) Stimulated recall interview (StRI)

In StRI, two types of stimuli, the idiodynamic ratings in the bitmap graph and Excel sheet, and the linked video, were provided when conducting the interview. Due to the longer length of video recording than the previously studied lab-based interaction, the data in the graph were not clear enough to be recognised, particularly the time information if the whole graph was displayed. I would use my computer to display the graph giving participants a general view and allowing them to zoom in or out quickly, and they were also given a chance to see the detail of output in the Excel. In this way, displaying the graph of WTC ratings on the computer is a better way for such dense data in a longer session. It also supported me in conducting the idiodynamic method online by allowing me to use the share-screen function built in to ZOOM.

To better understand the dynamics of learners' WTCC in short passages of related dialogue within the sessions, there was a need to examine key moments that display learners' intention or reluctance to talk in detail. As mentioned in Section 4.3.3, participants in the pilot study found it demanding because they had to watch the video recordings twice. Preselection of moments by the researcher and participants beforehand, as they suggested, is commonly used in StRI (Cameron, 2020; Friedman, 2011).

Thus, before conducting StRI, I would watch and transcribe the video recordings, which helped me navigate the moments during StRI. I would mark points of interest based on the graph of WTC ratings and video recordings; participants were also asked to choose one or two moments beforehand. To conduct this method smoothly, I made notes to map the graph's moment-to-moment fluctuations in the edited video data. If the moment in which the ratings of WTC showing a noticeable change was selected, I would find the time data and then play the linked recorded video to see what happened there. These pre-selected segments involved time data, range of variation, and what happened there.

Another issue was the language used in StRI. In this study, for learner participants, it was the learners' mother tongue, English; only one learner recruited in 2021 was from Ukraine, but she had spent 20 years in NZ, and her English was native-like level. For tutor participants, it was the tutors' mother tongue, Chinese. Using their mother tongue to elicit their thoughts can make them feel comfortable and competent to share their reports.

The same procedure of idiodynamic method was applied with tutors.

4.4.5.2 The added instruments during data collection

The first revised online research design was further changed for three pairings by adding the five extra SCOLT-WTCC sessions and adding two instruments: the Experience Sampling Method and the Journal. These two added instruments collected data in the six non-idiodynamic sessions (Sessions 3, 4, 5, 7, 8, and 9).

Experience sampling method: WTCC grid

My reading of the literature introduced me to another measure I decided to investigate and adapt for use in the study. The experience sampling method (ESM), also called ecological momentary assessment (EMA), aims to discover a phenomenon as it occurs

naturally in the environment (Khajavy et al., 2021). Using this method, the data are collected through repeated measurements of participants' current feelings, thoughts, and behaviour in fixed or random time intervals over a period of time (Larson & Csikszentmihalyi, 2014).

Pawlak et al. (2016) and Mystkowska-Wiertelak (2021) argued that MacIntyre and Legatto (2011) applied the idiodynamic method into a laboratory-style procedure which is not classroom-based. Hence, they used ESM, to situate their enquiry about the dynamics of L2 WTC in the language classroom. In their studies, Pawlak and Mystkowska-Wiertelak made a slightly different version of this tool, called WTC grid, using two extreme values from -10 to +10 (Mystkowska-Wiertelak & Pawlak, 2017) to measure learners' WTC. The length of time intervals was based on single tasks or the whole duration of a class. Thus the data were collected every 30 seconds (Pawlak & Mystkowska-Wiertelak, 2015) or 5 minutes (Mystkowska-Wiertelak, 2021; Pawlak, 2014; Pawlak et al., 2016).

Adapted from Mystkowska-Wiertelak and Pawlak's (2017) ESM, in my study, I instituted a form of ESM which I called the WTCC grid (see Appendix K) to investigate the extent to which the learners' WTCC fluctuated in the course of individual SCOLT-WTCC sessions. Learners were asked to indicate the extent of the willingness and unwillingness on a line from -5 (extreme unwillingness) to +5 (extreme willingness) in the session at five-minute intervals when they heard a tutor-set beep. I changed the scale with the same two extremes from -5 to +5 as the values shown in idiodynamic software to reduce learners' cognitive resources on rating their WTCC during sessions. There were detailed instructions at the top of the digital sheet (see Figure 4.7). In addition, a thorough explanation provided by their tutors and a demonstration of the beep facilitated learners to complete the form of the WTCC grid.

Given the focus on the whole session of SCOLT-WTCC (at least 20 minutes), this study

employed this tool every 5 minutes, so usually, there were 5 or 6 scores for each session. This would be done in six sessions (Sessions 3, 4, 5, 7, 8, and 9). All SCOLT-WTCC sessions were recorded, so the video recordings of those six sessions could help match up potential peaks and troughs with what was happening during SCOLT-WTCC sessions.

Journal

The journal (see Appendix L) was distributed digitally to learners immediately after these six sessions (Sessions 3, 4, 5, 7, 8, and 9) to tap into the factors affecting WTCC and to match the fluctuation of the WTCC grid in the course of a particular SCOLT session by combining it with video recordings. This journal was constituted by four open-ended questions concerning such issues as the situations in which they felt most willing, unwilling, or conflicted to communicate and factors that influenced their willingness to share. Some loose guidelines were provided in each item for the writing, including “describe what happened, why you wanted to communicate, and how you felt about that experience” and they were asked to report general factor categories (such as topic, tutor, technology) which might affect their WTCC to avoid the danger that learners might simply report a list of activities without reflection. This journal was worded in English, and no specific length was set.

There were two primary goals for this instrument. First, the journal was designed to tap into the nature of WTCC and pinpoint the factors that may have impacted it in the course of a particular SCOLT session. Second, the learners were repeatedly asked to discuss situations in which they were most willing, least willing, and ambivalent. Doing so enables us to investigate the most salient factors or track the possible transition of these factors in relatively long-term dynamics (Mercer, 2014).

Figure 4.7
WTCC grid

In Class WTC Grid

↵

In this part, I would like to know your willingness to communicate at a particular moment in response to a beep set by your tutor. Please indicate the level of WTC using a scale from -5 (not at all) to +5 (very much) in the below grid.

↵

↵	5min↵	10min↵	15min↵	20min↵	25min↵	30min↵	↵
5↵	5↵	-1↵	↵	↵	↵	↵	↵
4↵							
3↵							
2↵							
1↵							
0↵							
-1↵							
-2↵							
-3↵							
-4↵							
-5↵							

This journal was adapted from Pawlak and Mystkowska-Wiertelak’s studies (Mystkowska-Wiertelak & Pawlak, 2017; Pawlak & Mystkowska-Wiertelak, 2015), which provide evidence that this tool can investigate learners’ internal voices and their perceptions of WTCC change. The journal used in their studies covered demographic information, closed questions and open-ended questions, aiming to provide quantitative and qualitative data about all the learners in a class. Given the one-to-one personalised nature of the SCOLT project, I made some modifications by removing the demographic information as it was obtained through the questionnaire. I also removed closed questions which focused on the effects of specific factors on learners’ WTC (such as *group work increased/decreased your WTC*). In addition, I changed the specific (un)WTC moments (such as *Which topics increased/decreased your WTC*) to general (un)WTC moments (such as *Please recall one or two situations in which you were most (un) WTC in Chinese*).

4.4.6 Phase 2 Implementing two research designs

After Session 2, I offered two options to the learner participants, as mentioned in

Section 4.4.4. Dan stuck to the original data collection procedure (see Table 4.6) and spent another two weeks in November 2020 finishing the remaining three SCOLT-WTCC sessions.

Tony and Ella chose the second revision of the research design. Both spent over six weeks from November 2020 to December 2020, finishing ten SCOLT-WTCC sessions. After Sessions 2, 6, and 10, Tony, Ella and their paired tutors were required to conduct idiodynamic ratings. All rating parts of the idiodynamic method were completed within 48 hours of the teaching session. For StRI, it was not always possible to meet up so soon as required since I needed to accommodate the participants who had other obligations (Marshall & Rossman, 2011). For example, one student could not complete StRI within 48 hours of one teaching session due to a severe cold. Furthermore, the time difference between the learners and me was five hours, which required me to make an effort to arrange a time suitable for both sides. Appendix N records the detail of the dates of the SCOLT-WTCC sessions and the subsequent ratings and StRI to present a more accurate picture.

As for the non-idiodynamic sessions, tutors set a recurring timer that beeped every five minutes except for the first session. Learners were required to rate their WTCC in a digital WTCC grid when they heard the sound. After these sessions, learners completed a journal and sent it back to me along with the data in the grid. However, both tutors forgot to set a timer in Session 3, possibly because they did not prepare to respond to the added task during the teaching session. As a result, I reminded the tutors to set the alarm clock before their teaching practice. The one learner participant who took part in 2021 was also not required to complete the WTCC grid in Session 3. This participant also spent almost five weeks finishing ten SCOLT-WTCC sessions.

4.5 Data Preparation and Analysis

What follows is a detailed account of how the collected data were analysed. I first

created a folder for each case, in which the data from different timescales were divided into different sub-folders. The subfolders were named: Questionnaire, Session-based WTCC scale, WTCC grid, Journal, Idiodynamic method including ratings and StRI, and SCOLT session video recordings.

4.5.1 Transcription and juxtaposition

4.5.1.1 Transcription and Translation

Two sets of data were transcribed, SCOLT-WTCC learning recordings and interview recordings. Learners and tutors completed 35 sessions, and I received 34 recordings of which Session 10 from Tony was only recorded for the first 20 minutes. Session 5 from Vicky was not recorded because of the unstable internet. The video recordings were grouped into idiodynamic sessions and non-idiodynamic sessions. Most idiodynamic sessions were transcribed before conducting StRI, and non-idiodynamic sessions were transcribed after completing data collection.

Transcribing idiodynamic sessions before StRI enabled me to become familiar with what was happening in the sessions and to further quickly navigate the excerpt that showed their WTCC ratings ups and downs during StRI. As Dan implemented the idiodynamic method four sessions in a row, I could not fully transcribe those sessions before StRI but I watched several times and marked down the moments that I wanted to ask about during StRI.

To transcribe session recordings, InqScribe software was used. This software provided a timestamp down to the millisecond for each utterance and each speaker's name, by which I could quickly locate the target excerpt and the exact timing in seconds to match the participants' WTCC idiodynamic ratings. This study adopted Dai's (2022) transcription notations which were adapted from the Jefferson Transcription System (Jefferson, 2004), to describe both talk and non-verbal behaviour (Table 4.8). All the

transcriptions of the sessions were written in Chinese and were exported to Excel sheets.

Non-idiodynamic sessions, 13 StRI recordings with tutors, and 13 StRI recordings with learners were also fully transcribed using InqScribe after collecting data. It should be noted that the focus of transcribing the StRI was on capturing the content of interviews, certain details such as pauses, fillers, and restarts were mainly omitted. The section of transcripts, including those of session recordings and tutors' accounts in StRI that I chose to report in the findings section, were translated from Chinese into English, and they were cross-checked by two of my supervisors who are L1 Chinese speakers to verify they were translated correctly.

Table 4.8

Transcription notations (Dai, 2022)

Notations	Description
[]	Overlapping utterances
(2.0)	Timed pause within or between adjacent utterances
::	A prolonged stretch
-	Cut off
((laughs))	Non-verbal behaviours
<i>Theatre</i>	English in original utterance
< >	Utterance is delivered at a slower pace

4.5.1.2 Juxtaposing SCOLT-WTCC talk with idiodynamic ratings

I sought advice from MacIntyre, who developed the idiodynamic method, on how he and his team coordinated the display of the transcripts with the results of the second-by-second ratings in their study. MacIntyre, in his email, explained how they (see Appendix O) matched the time on the video recordings and the timestamp in the Excel file. AVT2 software accordingly produced a graph and an Excel file including one rating per second based on the video recording. Figure 4.8 shows a transcript example from their study. WTC ratings were adjusted in correspondence to the length of the talk and evenly appeared in italics above the text to represent the moment in the video.

I, therefore, used the method above to juxtapose idiodynamic ratings with talk. Figure 4.9 illustrate an example in my initial draft of juxtaposing these data. The texts in the brackets are the translation of participants' utterances. As the WTCC ratings were evenly distributed above texts, sometimes it could not exactly match the change in participants' WTCC with the corresponding SCOLT-WTCC talk, especially when the utterances were too long. For example, six ratings showed a decreasing trend in Line 2 in Figure 4.9, but the display does not indicate whether the ratings, such as the last two -1, occurred during, after, or before the word *hot pot*.

Figure 4.8

A transcript example in MacIntyre and Legatto's study (2011)

RA—Please count to one hundred by tens.
 0 0 1 3 3 4 3 3 3 2 0 -1
 Mabel—Ok. Dix, vingt, trente, quarante, cinquante, soixante, soixante-dix....(laughs and
 puts her hand to cover her mouth) oh my god I can't believe I can't remember that....I
 -1 -1 -1
 can't believe I can't remember eighty....
 0 0 0
 RA—Ok, you want to just go to the next one?
 0 0 0 0 0 0
 Mabel—No, I'm trying to think of it in my head...(counts quietly, barely audible) ... I
 0 0 0 0 0 0
 can't believe I can't remember that. Soixante-dix...(inaudible) and I can't get ninety if I
 0 0 0
 can't get eighty...Cent...I can't think of eighty or ninety...you're going to tell me this
 0 0
 later 'cuz I can't remember it.

Figure 4.9

An initial transcript example in this study

0 1 2 3 3 2
 1.Yating 我们先来复习, 嗯, 火锅(let's review first)
 2 1 -1
 2.Ella: 哦, 火锅 (oh, hotpot)
 -1
 3.Yating 嗯火锅 (hmm, hot pot, hot pot, hmm, hot pot)
 -1 -1 0 0 -1
 4.Ella: (3 seconds pause)火锅 (hot pot)
 -1
 5.Yating 打麻将(play mah-jong)
 -1 -1 -2
 6.Ella: 嗯, 打麻将(hmm, play mah-jong)

Becoming aware of this issue mentioned above, I turned to the juxtaposing layout introduced by Ducker (2020). Ducker transcribed second-by-second conversational behaviours next to the data of one rating per second in Excel generated from AVT2. An example of this triangulation is included in Figure 4.10, where the Column [A] data were timestamped on a second-by-second basis. Columns [B] and [C] contain the idiodynamic ratings from two participants. Columns [D] and [E] were the speakers, and their utterances were transcribed to the timecode second by second.

Ducker’s method could provide the detail of describing and juxtaposing second-by-second changes to WTCC with talk. However, as the author himself mentioned, using this layout increases the difficulty for readers, and it does not conform to standardised transcription conventions. Apart from these disadvantages, tutor and learner utterances in my study were in the Chinese language, so it was hard to match English translation with their Chinese utterances word by word. As a result, I did not choose this way.

Figure 4.10

A transcript example in Ducker’s (2020) study

	A	B	C	D	E	F	G
1	TIME	Seo	Natsu	SPEAKER	TRANSCRIPTION	BODY LANGUAGE	
	439 0:07:36				year no we all like		
	440 0:07:37	0	4	TF	Grapefruit		
	441 0:07:38	0	4		I don't know why		
	442 0:07:39	0	4		Japanese people crazy for		
	443 0:07:40	0	3		Grapefruit		
	444 0:07:41	0	2		is it for		
	445 0:07:42	0	3		another [(inaudible)		
	446 0:07:43	0	3	SM	[you like	points at S	
	447 0:07:44	0	1	S	[un yes		
	448 0:07:45	0	1	SM	[do you ?		
	449 0:07:46	0	0	TF	grapefruit		
	450 0:07:47	0	0	N	au un		
	451 0:07:48	0	2		I like		
	452 0:07:49	0	4	TF	nande grapefruit		
	453 0:07:50	0	4		nihon de yuume?		
	454 0:07:51	0	4	N	yuume? Minna		
	455 0:07:52	0	4		taberu you		
	456 0:07:53	0	5	TF	what do you mean		
	457 0:07:54	0	5	N	everyone	=B asks S coffee?	
	458 0:07:55	0	5		eats	=S shakes head	
	459 0:07:56	0	5	TF	[(inaudible)		
	460 0:07:57	0	5	SM	[so he you does n	interrupts TF & N	
	461 0:07:58	0	5		like coffee[what about you		

Finally, I decided to use the juxtaposing system used by Khatereh and Elahi (2020).

Applying superscript formatting to the WTC ratings and matching the superscripts with the talk second by second is an example of this transcription in Table 4.9. Doing so enabled me to transcribe the SCOLT-WTCC talk in a more orthodox manner; it also precisely displayed the utterances and their corresponding ratings.

4.5.2 Analysing data

Learner participants' performance with their paired tutors during sessions, the factors they reported on in the journals, and the StRI, tutors' StRI, and the researcher's notes were triangulated. The data collection for four cases in this study was conducted individually, and contextualised. Therefore, the data analysis focused on individual cases with holistic, situated, and multiple points of view and discussion of their WTCC in relation to the three timescales. First, I will explain how I juxtaposed SCOLT-WTCC conversations with idiodynamic WTCC ratings and how I visually represented WTCC in different timescales.

Table 4.9

A final transcript example in this study

Turn	Original utterance and juxtaposed ratings	Translations
1. Yating	⁰ 我们先 ¹ 来复习 ²³ 嗯 ³ 火锅 ²	let's review first, um, hotpot
2. Ella	哦 ² 火锅 ⁻¹	Oh, hotpot
3. Yating	嗯。火锅 ⁻¹	Um, hotpot
4. Ella	⁻¹ 火锅 ⁰ 锅 ⁻¹	hotpot
5. Yating	打麻将 ⁻¹	Play mahjong
6. Ella	⁻¹ 嗯 ⁻¹ 。打麻将 ⁻²	Um, play mahjong

It should be noted that each dyadic conversation was unique, with both expected and unforeseen circumstances that could have influenced the shifts of WTCC. None of these communications could ever be duplicated, even with the same participants, due to the idiosyncratic character of communication (MacIntyre, 2019). As a result, this study focused on the fluctuations in WTCC, not on a statistical analysis of the ratings. It also focused on a qualitative analysis of the themes indicated by the learner and tutor

participants from the journals and StRI.

Thus, questionnaire data were used to provide background information for each learner and to present a comprehensive picture for understanding fluctuations in WTCC. The quantitative ratings were generated from each level: the responses to the Session-based WTCC scale, WTCC grid, and idiodynamic software. They were used to determine high or low levels and to display how WTCC shifts from second-by-second, five-minute intervals, and over a series of sessions. In order to differentiate learners' WTCC from different levels or timescales for later presentation in the findings and discussion sections of the study, "Session-WTCC", "Grid-WTCC", and "Idio-WTCC" stand for WTCC ratings from different levels.

Thematic analysis (Cousin, 2009), which involved researcher interpretation, was adopted to analyse the qualitative data: journals and StRIs. The first step of the analysis was familiarising myself with the data, the transcripts of StRI along with the journals which were read through several times. After familiarising myself with the data, each StRI transcript and journal was coded. Coding, the translation of participant responses into themes, has been defined as "the process through which data were fractured, conceptualised, and integrated to form theory" (Corbin & Strauss, 2014, p. 222).

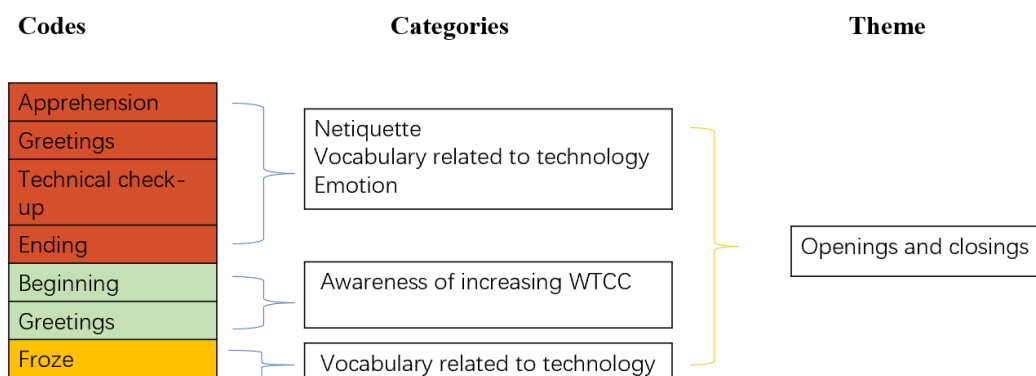
The data were initially coded line-by-line in an open, grounded manner (Mercer, 2014) to allow me to consider all aspects of the data, including potentially unexpected features. This was done by labelling the words or phrases related to the themes in the data sources. In the following rounds of coding, the initial codes were refined and placed together through re-reading and comparison until categories began to form. With CDST in mind, themes were conceptualised based on the data, codes, and categories. An example in Figure 4.11 shows how the theme "openings and closings" emerged from Ella's journals.

Another strategy (Saldaña, 2003) was creating a word document with a matrix arranged both chronologically and thematically for both journal and interview data to aid

comprehension of possible long-term and short-term dynamics. Taking openings and closings in Ella's journals as an example (see Figure 4.11), the data through thematic analysis showed that she was generally reluctant to communicate during openings and closings. Through chronologically analysing the data, the possible dynamics in her WTCC on more macro-levels (session-by-session) were displayed. The arrows in Figure 4.12 are merely reflections of Ella's words that she had written in her journals to give an idea of fluctuations in WTCC for the session stage, openings and closings in this case.

Figure 4.11

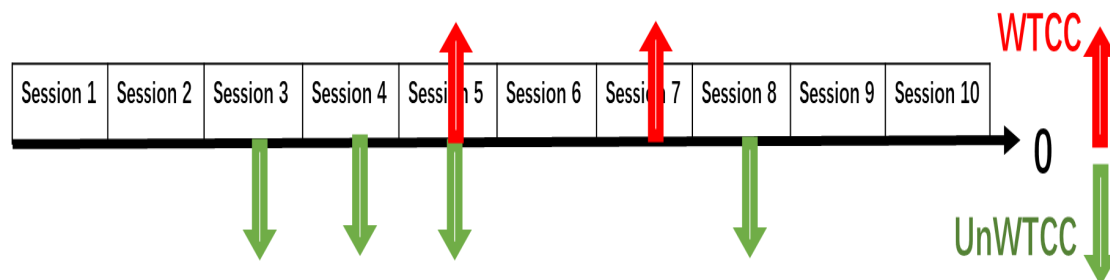
Example of the coding process



Notes. the red, green, and yellow rectangles refer to the situations where the learner felt unwilling, willing, and conflicted to talk respectively.

Figure 4.12

Fluctuations in Ella's WTCC in openings and closings of the sessions



Notes the red and green arrows refer to the learner's feelings of unwillingness and willingness to talk, and the yellow solid arrow refers to conflicted to talk.

In terms of the short-term dynamics of learners' WTCC in single interactions, four types of data sources were used for analysis: transcripts of the speech, the WTCC bitmap graphs, the WTCC ratings, and the participants' explanations of WTCC shifts during StRI. I reviewed all the data sources and selected the key moments that showed dramatic rises and falls in learners' idiodynamic ratings to be examined in detail. To create a comprehensive picture of the perceived reasons for the fluctuation in learners' Idio-WTCC, I triangulated idiodynamic ratings, relevant StRI passages, and the video recordings, by reviewing them together to aide in interpretation, providing more information than is present in either transcripts or audio recording alone. The quantitative data were completely embedded within a qualitative approach (Creswell & Clark, 2017). Here is an example (see Table 4.11) where I grouped all the data sources.

To obtain a detailed picture of the situation, learners' WTCC was viewed from different viewpoints. For this purpose, I converged the learners' self-ratings, the tutor's ratings of learners' WTCC and their respective explanations. The combination of ratings and respondents' explanations reflected the respondents' understanding of WTCC, from both learners and their paired tutors.

Table 4.10 presents the abbreviations used in this study. Applying these abbreviations can help with the presentation of each participant learner's unique trajectory.

Table 4.10

Abbreviations for the data sources

Codes	Explanation
EJ3	Data from Learner Ella's journal after Session 3
ES2	Data from Learner Ella's stimulated recall interview of Session 2
JS2	Data from Tutor Jiyao's stimulated recall interview of Session 2
YS2-V	Data from Vicky's tutor Yating of stimulated recall interview of Session 2

YS2-E	Data from Vicky's tutor Yating of stimulated recall interview of Session 2
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4.6 Summary

This chapter presented a detailed discussion of the research project. It began by clarifying the rationale for conducting a longitudinal case study approach in this study and outlined the research questions and instruments. This was followed by a detailed account of the original research design, which allowed me to investigate how and why learners' WTCC fluctuated in a unique way from the pilot study. However, the results of the pilot study, as well as the impact of COVID-19, created practical challenges which illustrate the complexity of this research procedure. In response to the practical challenges mentioned, the first revised online research design for the main study was developed. As the technical issues in AVT2 reoccurred in the initial implementation of the main study, I had to keep refining the instruments. After several rounds of refinement, both research designs were employed in the later data collection. In this chapter descriptions followed of the data collection procedures for the main study and the data analysis of multiple data sources.

Both research designs enabled me to further investigate the dynamics of learners' WTCC from different timescales, second-by-second, at five-minute intervals (the second research design), and over a series of sessions. The findings from the data obtained from the questionnaire, SCOLT-WTCC scale, WTCC grid, journal, idiodynamic method with the learner and tutor participants, and video recordings are presented in the following four chapters and discussed further in Chapter 9.

Table 4.11

An example of idiodynamic method analysis

<p>Except 2 (Time 1'37-2'15; TS 6)←</p>	<p>Tony's account in StRI← Increased WTCC: the effect of map; personal interest, self-confidence←</p>																
<p>2. 1'37-2'15←</p> <table border="1"> <tr> <td>1.Jiyao</td> <td>可以看到了吗? (can you see it)</td> </tr> <tr> <td>2.Tony</td> <td>我看到⁰了⁰ (I saw it)</td> </tr> <tr> <td>3.Jiyao</td> <td>哦, 昨天¹我们¹上课去了⁰哪里⁰? (oh, where did we go in our class yesterday?)</td> </tr> <tr> <td>4.Tony</td> <td>⁰额¹昨天⁰我, 我们¹嗯¹, 计划⁰额, 去⁰chong⁰去⁰成都¹ (uh, we planned to go to Chengdu yesterday)</td> </tr> <tr> <td>5.Jiyao</td> <td>嗯, 对, 好¹去成都⁰, 哦好⁰, 我⁰在⁰成都⁰, 你在哪里⁰? (hmm, yeah, went to Chengdu, I am in Chengdu, where are you?)</td> </tr> <tr> <td>6.Tony</td> <td>额⁰, 你在⁰成都⁰。(uh, you are in Chengdu)</td> </tr> <tr> <td>7.Jiyao</td> <td>啊⁰, 你在哪里⁰? 你⁰, 在哪里⁰? (ah, where are you, you, where are you ?)</td> </tr> <tr> <td>8.Tony</td> <td>哦我⁰, 我在⁰额⁰, 我的⁰工作⁰在⁰Auckland⁰ (oh, I, I am working in Auckland)</td> </tr> </table> <div> </div> <div> </div>	1.Jiyao	可以看到了吗? (can you see it)	2.Tony	我看到 ⁰ 了 ⁰ (I saw it)	3.Jiyao	哦, 昨天 ¹ 我们 ¹ 上课去了 ⁰ 哪里 ⁰ ? (oh, where did we go in our class yesterday?)	4.Tony	⁰ 额 ¹ 昨天 ⁰ 我, 我们 ¹ 嗯 ¹ , 计划 ⁰ 额, 去 ⁰ chong ⁰ 去 ⁰ 成都 ¹ (uh, we planned to go to Chengdu yesterday)	5.Jiyao	嗯, 对, 好 ¹ 去成都 ⁰ , 哦好 ⁰ , 我 ⁰ 在 ⁰ 成都 ⁰ , 你在哪里 ⁰ ? (hmm, yeah, went to Chengdu, I am in Chengdu, where are you?)	6.Tony	额⁰, 你在⁰成都⁰。(uh, you are in Chengdu)	7.Jiyao	啊⁰, 你在哪里⁰? 你⁰, 在哪里⁰? (ah, where are you, you, where are you ?)	8.Tony	哦我⁰, 我在⁰额⁰, 我的⁰工作⁰在⁰Auckland⁰ (oh, I, I am working in Auckland)	<p>Yeah, it increased a lot, because I guess initially, I got one of those questions wrong. But then as soon as I could start getting more and more answers right, or I could, all those pictures popped up and I knew that I could answer it all. I was very confident, so I wanted to speak basically. Yeah, that's pretty much the crux, I was confident and my ability to answer his question things.←</p> <p>So, it is good because ... I guess even going a little bit deeper, ... just the fact that <u>it's</u> a picture, visual way of learning. I mean, immediately I have an interest and my job is flying, used to be anyway, flying around world and so, as soon as I see a map, it peaked up my own personal interest and then when he was talking about Chinese. And when we were talking about this subject and that I was also interested in it, I was already very engaged and wanted to speak and talk about it. It was not like I don't know, um, just any random picture or some picture that did not really mean anything to me.←</p> <p>Pictures help me a hell a lot more and then I guess reading words, I mean I think <u>that's</u> one of the things why I have kind of grown to love learning the Chinese language or especially <u>hanzi</u>, it is because it is to me, it is just the pictures, so I find it easy to learn to read <u>hanzi</u>.←</p>
1.Jiyao	可以看到了吗? (can you see it)																
2.Tony	我看到 ⁰ 了 ⁰ (I saw it)																
3.Jiyao	哦, 昨天 ¹ 我们 ¹ 上课去了 ⁰ 哪里 ⁰ ? (oh, where did we go in our class yesterday?)																
4.Tony	⁰ 额 ¹ 昨天 ⁰ 我, 我们 ¹ 嗯 ¹ , 计划 ⁰ 额, 去 ⁰ chong ⁰ 去 ⁰ 成都 ¹ (uh, we planned to go to Chengdu yesterday)																
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8.Tony	哦我⁰, 我在⁰额⁰, 我的⁰工作⁰在⁰Auckland⁰ (oh, I, I am working in Auckland)																

Notes Except 2 (Time 1'37-2'15; TS 6) refers to the moment selected from time from 1mintue37 to 2 minute15 in Tony's Session 6. The highlight texts in blue contributed to increasing WTCC through a summary from Tony's account in StRI

Chapter 5 Case Ella

5.1 Background Information

Ella, the learner, and Yating, the tutor, paired to start their SCOLT journey (October 2020). Ella was 24 years old and had just finished her degree and began a career in the advertising sector when she took part in this study. The questionnaire revealed that Ella had learned Chinese as a minor for three years via online and face-to-face (F2F) teaching at Massey. Her reasons for studying Chinese were mainly to help her career and because of her interest in Chinese language and culture. She had been to China twice with the MU Chinese program, for six weeks in 2018 and five weeks in 2019, respectively. Due to travel restrictions in COVID-19, Ella took my offer of joining the project as an avenue to improve her Chinese proficiency, particularly in listening and speaking.

Yating was a first-year postgraduate student in Applied Linguistics at the time of the project undertaking. When she joined this project, she was already conducting one-to-one online Chinese teaching with US students. In the meantime, she was completing Master's courses on language teaching skills, second language acquisition, and Chinese grammar at BLCU. Before her Master's, she had taught Chinese in a traditional classroom setting at a university for over a year. When I contacted her, she was happy to take part in my study as she believed that online teaching could allow her to learn about other cultures from her learners and improve her teaching skills.

Table 5.1 demonstrates all four learners' self-reported scoring of WTC-trait, anxiety, and self-perceived communication competence in the pre-project questionnaire. Ella, among the four learners, rated herself the lowest WTCC-Trait score (325 out of 1500), the highest anxiety score (800 out of 1500) and a relatively low SPCC score (300 out

of 1500).

Table 5.1

The questionnaire scores on WTC-trait, Anxiety (CSAS), and Self-perceived Communication Competence (SPCC) for the four participants

%	WTCC-Trait (Range 0-1500)	CSAS (Range 0-1500)	SPCC (Range 0-1500)	Motivation (Range 0-300)
Ella	325	800	300	140
Tony	1300	240	570	300
Vicky	1370	60	1190	280
Dan	794	305	102	160

Although Ella had a strong desire to learn Chinese, and the SCOLT environment aligned with her preference for talking with a Chinese tutor online, her low general WTCC-Trait rating indicated that she might find herself reluctant to participate fully in oral interaction. The following sections present the dynamics of Ella's WTCC and the shifts on different timescales.

5.2 Level 1 Trajectory of Ella's WTCC over Ten Sessions

Over six weeks, Ella attended ten SCOLT-WTCC sessions with her tutor, Yating. Table 5.2 summarises the topic introduced in each session and Session-WTCC ratings that she reported after each session to reveal her general willingness to speak during the session.

After self-introduction in Session 1, Yating tried to negotiate the learning method and topics for the coming sessions with Ella. Ella replied to Yating that she needed some language practice as she lacked real-life communicative opportunities but did not suggest any specific areas she wanted to improve. On WeChat, Yating told me that she watched the video recordings of Session 1 while making notes about Ella's hobbies to decide on the topics for the following sessions. Session 2 was about travelling. Sessions 3 to 6 were on movies.

The next topic, festivals, from Sessions 7 to 9, was decided when Ella mentioned in Session 6 that her company had submitted a project about Spring Festival to customers. In these three sessions, they talked about the customs, celebrations, and Chinese blessings (Session 7); they discussed the 12 Zodiac signs and learned a Chinese song, *Congratulations* (Session 8); Ella talked about two festivals in New Zealand: Christmas and Māori new year (Session 9). The topic for the final session in Session 10, making a plan to visit New Zealand, evolved from the discussion in Session 9. Table 5.2 shows Ella’s self-reported WTCC response to each topic chosen for each session.

Table 5.2

Topics for individual sessions, along with Ella’s Session-WTCC score for each session

SCOLT-WTCC	Topics/contents	Session-WTCC
Session 1	Self-introductions	60
Session 2	Travel: talking about the countries Ella had been to	60
Session 3	Movie types	70
Session 4	Introduce two favourite movies	80
Session 5	Discuss the movie <i>Titanic</i>	70
Session 6	<i>Titanic</i> continued: “if Jack had survived”	85
Session 7	Topic: China’s spring festival	70
Session 8	Topic: Zodiac and learning a Chinese song	70
Session 9	Topic: Ella introducing Christmas and Māori new year	70
Session 10	Make an NZ trip plan for your friend	77

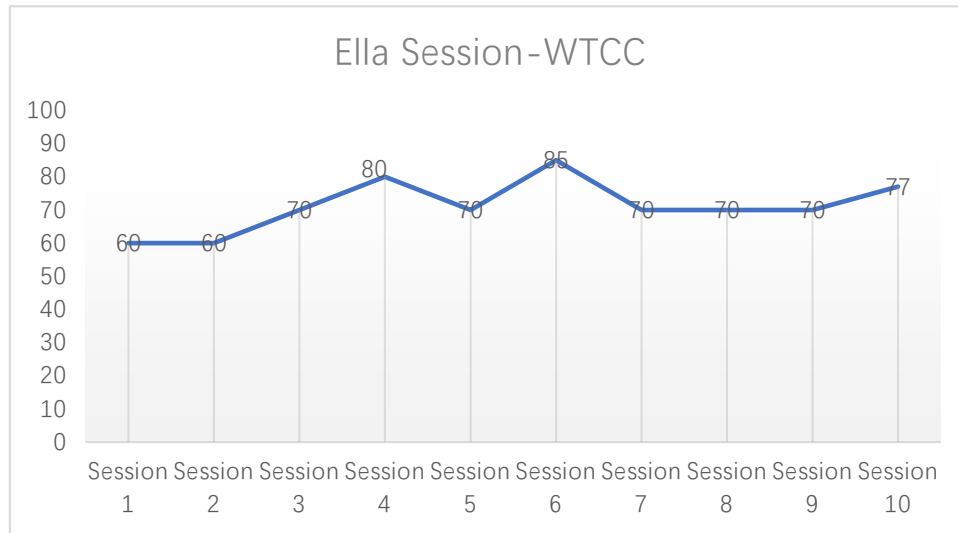
The general trends in the levels of session-WTCC over ten sessions showed (see Table 5.2 and Figure 5.1) that Ella’s readiness to speak ranged from 60 to 85, and from Session 3, it increased to over 70 in all cases. Ella’s written journal describing her Session 3 experience suggests that the increase might relate to her increasing familiarity with Yating (EJ3).

I think also as this is my third session with 雅婷 (Yating in written Chinese) I feel much more willing to communicate in general and also ask her questions about what she thinks so our lessons feel much more like a natural conversation. (EJ3)

Interestingly, there are five sessions (Sessions 3, 5, 7, 8, and 9) for which Ella scored 70 (see Table 5.1). In particular, Ella’s Session-WTCC gradually stabilised after Session 7. Next, I will discuss what happened within each session.

Figure 5.1

Ella’s Session-WTCC score for each session



5.3 Level 2 Change of Grid-WTCC within Each Session

This section examines Ella’s Grid-WTCC responses as revealed through the ESM mechanism in Sessions 4, 5, 7, 8, and 9, where she recorded her WTCC when prompted by beeps every five minutes during the session (see Section 4.4.5.2). This provides a detailed analysis of the changes across the session, and the factors or situations responsible for these changes.

The variations revealed in Ella’s Grid-WTCC during these sessions are illustrated in Table 5.3 and Figure 5.2. Overall, Ella’s response ranged from -1 (Session 5) to +4 (Session 4), with a possible range on the Grid from -5 to 5. Most of her ratings, 21 out of 25 ratings, oscillated between +1 and +3, apart from one session (Session 5) where Ella had two ratings in the negative band. Interestingly, as shown in Table 5.3, the first beep in each session (five minutes after it began) elicited a rating of +1 or +2. Cross-

referencing with video recordings of the classes shows that, except for Session 7, Beep 1 occurred during a phase in the session where words from the previous lesson were being reviewed, although her WTCC was in positive territory, the reviewing words activity was not one of her favourite activities.

Table 5.3

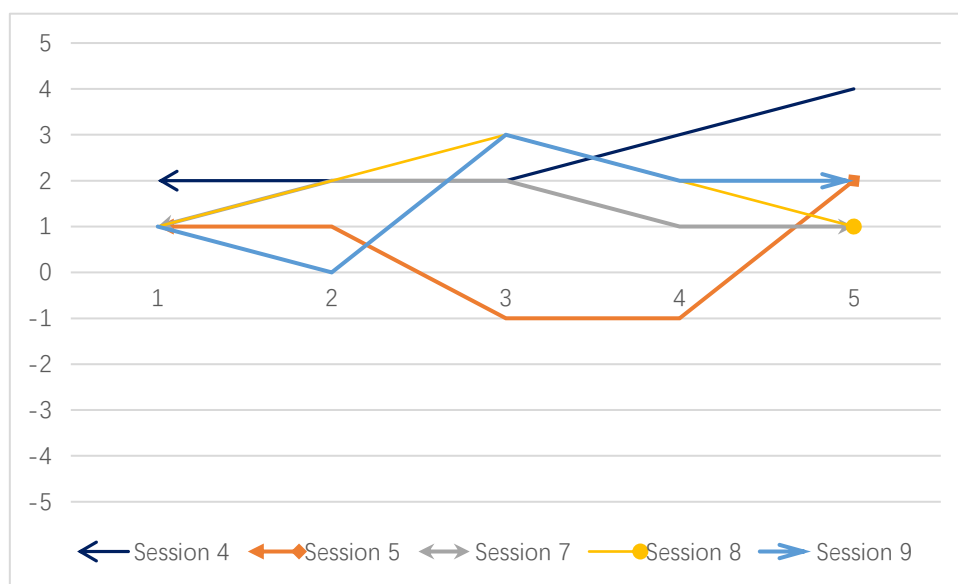
Ella's Grid-WTCC level at consecutive beeps in five sessions

	B1	B2	B3	B4	B5	Mean (SD)	Session-WTCC
S4	2	2	2	3	4	2.60 (0.80)	80
S5	1	1	-1	-1	2	0.40 (1.20)	70
S7	1	2	2	1	1	1.40 (0.49)	70
S8	1	2	3	2	1	1.80 (0.75)	70
S9	1	0	3	2	2	1.60 (1.02)	70

Note. B = Beep

Figure 5.2

Ella's WTCC level at consecutive beeps in the five sessions



As shown in Table 5.3, the mean value of Grid-WTCC representing Ella's willingness to contribute to interaction was highest in Session 4 (Mean=2.60) and lowest in Session 5 (Mean=0.40). Standard deviations for the fluctuations in each class showed the greatest stability during Session 7 (SD=0.49) and the most diversity during Session 5

(SD=1.20).

Previous studies have used the average beep score within one session to represent the general WTC for that session (Mystkowska-Wiertelak, 2016, 2021). However, in Ella's case, the mean scores of Ella's Grid-WTCC were not always consistent with the scores of her self-rated Session-WTCC. As indicated in Table 5.3, Ella's Session-WTCC scores were 70 points in Sessions 3, 5, 7, 8, and 9, while her average score from the Grid-WTCC was only 0.4 for Session 5, at least 1 point lower than the scores in the other three lessons. Thus, there is a need to look more closely at these session results.

The following will report on the dynamics of Ella's Grid-WTCC in two of these sessions. Session 4 was chosen because it triggered Ella's highest Grid-WTCC level score, both in average Grid-WTCC score and Session-WTCC; Session 5 was Ella's lowest Grid-WTCC level score that occurred. A more careful examination will draw relationships between comments from Ella's journals for these sessions and scores noted on the Grid.. The analysis also relies on the video recordings of these two sessions.

5.3.1 SCOLT-WTCC 4: Increasing WTCC

Session 4 was devoted to discussing Ella's two favourite movies, which was also the homework assigned in Session 3. This session generated a relatively high Grid-WTCC score, 80, the second highest of the ten sessions. Approximately the first seven minutes of the lesson involved greetings and reviewing vocabulary. Beep 1 occurred during the vocabulary review in which Ella repeated the words about movie types she had learnt in the last session.

The next three minutes were devoted to introducing Ella's two favourite movies, which constitute Topic 1 (T1, see Figure 5.3). Yating did not interrupt Ella's presentation. Right after she finished, Yating asked her to talk more about the first movie she had introduced (T1a). Ella had not prepared this, but with Yating's help and her interest in

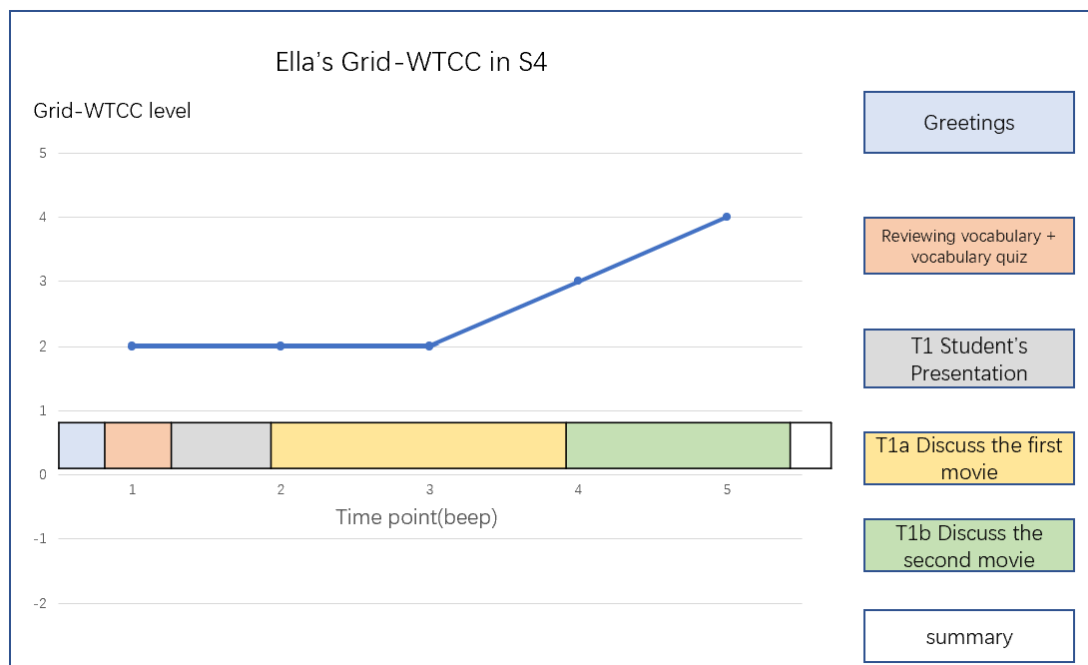
the movie topic, she started to introduce the content of the first movie, *The Lord of the Rings*. Beeps 2 and 3 occurred while Ella was discussing the first movie with her tutor. There was an increase from Beep 4 to Beep 5 when Ella was asked to say more about the second movie (T1b). This rising trend was also evidenced in Ella’s journal. She felt most willing to communicate while talking about the second movie because of her confidence in wording selection and permission to use the dictionary:

I felt like I knew or could figure out many of the words I needed to use. Also knowing that the teacher was okay with me using my dictionary to fill in the blanks helped. (EJ4)

Ella’s journal explained her feeling of comfort with a topic associated with her familiarity and interest, and highlighted the importance of Yating’s affective and pedagogical support. These supported her increasing Grid-WTCC pattern.

Figure 5.3

Fluctuations in the level of Grid-WTCC in Session 4 together with activities being performed



Note: T1 represents Ella’s presentation of her two favourite films; T1a and T1b represent the further discussion of each of the two movies by Ella and Yating.

5.3.2 SCOLT-WTCC 5: Concave-shaped WTCC

In Session 5, Ella and Yating discussed the film *Titanic*, suggested by Yating. Ella's Grid-WTCC values remained at the same level (+1) for the first two beeps. However, in her journal, Ella reported changes during this period. As Beep 1 sounded at around 5'0, there were no ratings in the first 30 seconds of this class. However, Ella reported two situations in her journal where she felt unwilling to communicate. The first moment was when the tutor was uploading a PowerPoint slide she had prepared for the session and asked Ella if she could see it. Ella expressed her strong desire to say "it's loading" in Chinese, but because she was not familiar with the vocabulary 加载 (to load) in Chinese, she waited for it to be loaded and just said, "I can see it". She was unable to express herself until the situation (the PowerPoint slide being uploaded) caught up with her knowledge of Chinese. Unfortunately, Ella could not grasp the opportunity caused by the internet lagging behind to contribute to the conversation, although her intention was high.

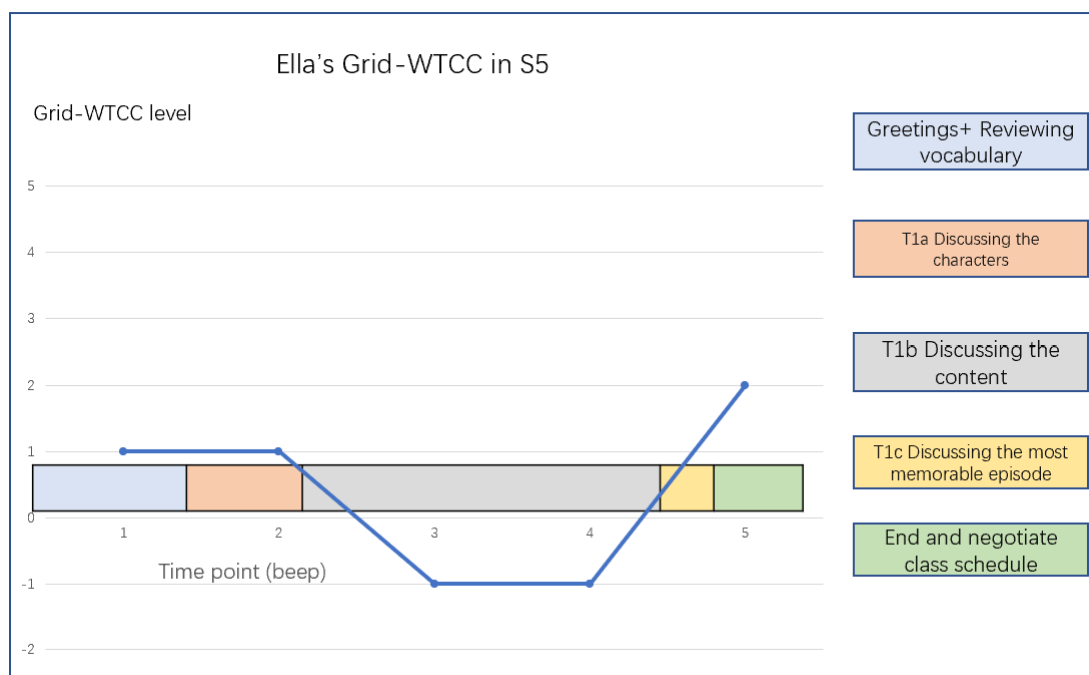
The second moment where she felt awkward with was her transition from English (pre-class) to Chinese (in-class) when the class first started. She needed time to acculturate to the interaction, as she wrote: "I think my brain takes a while to get used to it, it's almost like my brain needs to go through a brief re-boot"(EJ5). She also acknowledged, though, that her tutor did a very good job of easing her into the lesson and instantly making her feel comfortable attempting to speak in Chinese. However, these two moments were not captured by the Grid because they occurred between beeps.

The review was followed by a discussion of the content and movie characters in *Titanic*. During this discussion, Ella encountered some difficulty, being unsure of the meaning of the Chinese word 会 as a verb meaning "be able to" or referring to future actions "will be going to/doing something". This resulted in a drop to -1 at Beep 3. As time went by, her WTCC remained negative. Beep 4 sounded when she was struggling to

produce the word for 冰川 (glacier) in Chinese. She explained her low WTCC here when she felt she should have known the phrase but could not recall it, as a result impacting her confidence in speaking Chinese. On the other hand, she reported one moment when she felt most willing to communicate during this period when they collaboratively translated the phrase “if you jump, I jump” into Chinese. As she knew all the words required, her confidence in her Chinese proficiency increased, alongside her further excitement about Chinese learning.

Figure 5.4

Fluctuations in the level of Grid-WTCC in Session 5 together with activities being performed



The last four minutes of Session 5 were devoted to explaining the most memorable moments in the movie plot and negotiating topics for the next scheduled sessions. Beep 5 occurred when Ella was verifying the time for the next session. Her Grid-WTCC value was the highest in this session. In fact, she struggled at first because she was not too sure about whether the class was ending and if she should be saying goodbye. However, instead, what she did was she bravely attempted by saying, “Wednesday is the next class”, which gave her confidence to signal her intention to say goodbye and

end the class in a culturally appropriate way.

5.3.3 Journal

Ella's written reflective accounts regarding sessions 3, 4, 5, 7, 8, and 9 complemented other measures indicating her WTCC. At various points, she wrote about being most willing, unwilling, and ambivalent to communicate during specific sessions. She also listed a number of factors responsible for the increase and decrease in her Grid-WTCC.

5.3.3.1 Linguistic factors

Linguistic factors are apparent, highly affecting Ella's WTCC. When it comes to the concrete situations in which Ella felt willing to talk, the most prominent one was when the in-class activities did not particularly leave the open possibilities for conversations, such as practising grammatical structures, repeating words, and translating English words into Chinese displayed on the PowerPoint slides. In her written reflective accounts, where the communication was controlled and on the basis of her linguistic knowledge, she repeatedly mentioned that knowing the words, phrases, and sentence structures helped construct their conversation. This way could have built her confidence and further prompted her willingness to talk.

I think when we were going over the grammatical structures of 爱好, 对...感兴趣, 喜欢 [hobbies, be interested in, like], I felt very willing to create my own sentences as I felt I had a good grasp of the sentence structures. I also felt like I could create a lot of different sentences with the structures. (EJ3)

I think when we were going over the words and I had to come up with the Chinese word from the English word alone made me feel very engaged and more willing to communicate. I enjoyed this exercise as it was also a good level of difficulty. (EJ5)

I felt very WTC when it came to repeating the animals of the Chinese Zodiac as I recognised some of the words and I felt more confident attempting to pronounce the words. (EJ8)

The above comments reflected Ella's emphasis on the safety of the known, both

concerning form (i.e., being familiar with the certain lexis) and content (i.e., knowing the answer to the question posed). Besides, her appraisals about her performance and WTCC were mostly dependent upon linguistic factors, especially knowing the words required.

I think I felt most willing to communicate when discussing the story of the second movie (Alien), I felt like I knew or could figure out many of the words I needed to use. (EJ4)

I felt most willing to communicate when the teacher asked me what I do at Christmas – I felt more willing to communicate as I felt I knew a lot of vocabulary in regards to what I wanted to say. (EJ9)

The above statements demonstrate the interdependence of linguistic and situational factors (topic interest in EJ4, topic familiarity in EJ9) which collectively contributed to Ella's WTCC, while also emphasising the decisive role of linguistic factors in her intention to communicate. In contrast, the words that were not familiar and comprehensible to Ella were depicted by her as an impediment factor.

I felt less willing to communicate when asked whether I have done it as I was a bit unsure as to the full meaning of 爬山 (hiking on mountains), I wasn't sure if it meant hiking (in general), rock climbing, or hiking on mountains. After a moment however, I noticed the picture and felt more secure in my interpretation of the word. (EJ3)

I felt the least willing to communicate was I think when I was discussing when I would say certain phrases to a new friend from China – I think this was because I wasn't 100% sure what the question being asked was and I am generally the kind of person who likes to be 100% sure before going ahead with something. (EJ7)

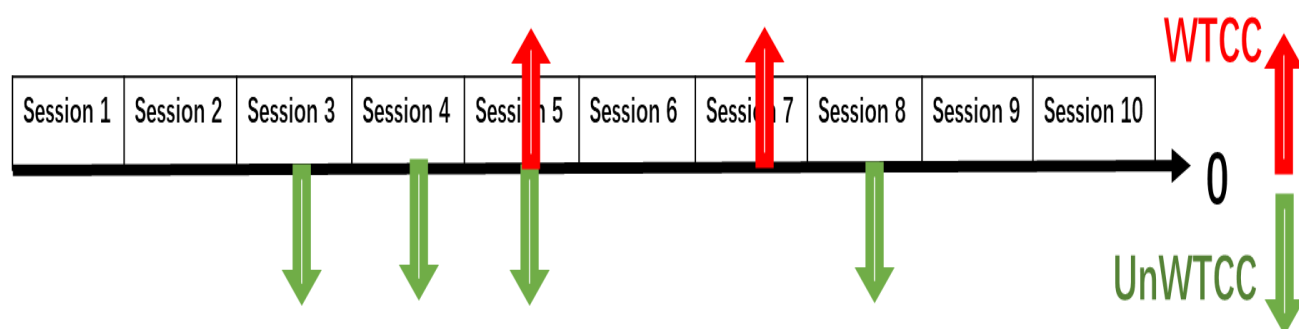
The two examples show the negative impact of linguistic factors on her WTCC. Apart from linguistic factors affecting her WTCC, her personality traits that demand her to always seek a sense of certainty likely impeded her from taking risks, including not taking risks in relation to meaning making in communication.

5.3.3.2 Changes in WTCC towards openings and closings

Another salient theme recurring throughout journal data is her general unwillingness to talk during session openings and closings, as four out of five entries showed her struggle at this stage. However, taking a closer look at her timeline, Figure 5.5 indicates a considerable variation across all ten sessions. Since the journal did not involve quantification ratings, and there were no ratings at the very beginning of the session due to the first beep sounding at around five minutes, the arrows in Figure 5.5 are merely reflections of Ella's words in the journal, to give an idea of fluctuations in WTCC for session stage, openings and closings in this case. The black arrow line in bold in Figure 5.5 indicates an assumed measure of 0, and the red and green arrows indicate a positive (WTCC) and negative assessment (UnWTCC), respectively.

Figure 5.5

Fluctuations in Ella's WTCC in openings and closings of the sessions



Ella's accounts in her journal provided further evidence of negative feelings she had towards the openings in Sessions 3 to 5, also shown in Figure 5.5 in green arrows. There was a consistent indication of Ella's low WTCC as she was reluctant to talk at the start of each of those sessions. She narrated:

At the start I felt uneasy about communicating in Chinese and was hesitant to say anything – it was almost as if I needed a moment for my brain to catch up to the context and switch from speaking English to [mostly] speaking Chinese. (EJ3)

Code-switching, anxiety, and being polite to her tutor seemed to influence her WTCC

mostly:

The moment when I felt least willing to communicate was probably right at the start, I think because I wasn't used to speaking in Chinese. Sometimes I also feel like my voice when speaking Chinese is a lot different from when I speak English, I felt like I really noticed that today when I first was speaking to 雅婷 [Yating, tutor's name in characters]. I think I also felt a bit apprehensive at the beginning because I'm not 100% sure if I'm coming across politely in Chinese (and I hope I am). (EJ3)

Ella could not immediately acclimatize herself to speaking Chinese at the beginning of the session, which along with notable concern over her behaviour and even her voice, diminished her WTCC. A situation such as this, where, within a dynamic system, stable tendencies, solutions or outcomes are observable, and the system tends to approach and stabilise through a process of self-organisation, is referred to as an *attractor state* (Hiver & Al-Hoorie, 2019). Attractor state (see Section 2.3.1), a key aspect of a complex dynamic system, can be defined as a “state the systems prefer to be in over other states at a particular point in time” (de Bot & Larsen-Freeman, 2011, p. 14), and openings appear to have been an attractor state for Ella.

In Session 4, Ella described further why she worried that her behaviour might be inappropriate and her uncertainty about greetings in a culturally appropriate form, thus creating her low WTCC:

I felt most unwilling to communicate at the beginning of the lesson, I always feel strange saying 你好 [hello], I also think because from what I've heard 你好 [hello] is not super commonly used? (EJ4)

The incident reported in Section 5.3.2, when Ella's vocabulary limitations prevented her from commenting on the delay of the PowerPoint slide uploading in Session 5, was another example of a lowering of her WTCC during the early stages of the session.

Closings, too, could destabilise her WTCC, as demonstrated in her uncertainty at the end of Session 5 about whether the tutor was actually attempting to bring the class to an end (see Section 5.3.2). In this case, she showed that in spite of her low tolerance of

ambiguity which affected her WTCC, she was able to use a strategy to strive for more certainty and grasp the opportunity to speak:

I think in this lesson I felt most unwilling to communicate towards the end of the lesson, as I was 95% sure the class was ending but I wasn't 100% sure so I didn't know or sure whether I should be saying goodbye. However, I confirmed this for myself by saying "Wednesday is the next class?", this helped confirm for me that class was ending and made me more willing to say goodbye. (EJ5)

Ella's WTCC system seemed to have shown variability from reluctance to talk in the early stages of sessions, including greetings and technical check-ups. However, as Ella was more aware of her anxious emotional state toward the openings or closings as a result of writing these journals over time, her attractor state of anxiety towards the openings changed, and her conscious greeting behaviour, in turn, increased her WTCC, as can be seen in this comment on Session 7.

I think one moment where I felt most willing to communicate was at the beginning of the lesson, after doing these questionnaires [journals in this case] I've found I'm much more in tune with my feelings and have been able to challenge and overcome my feelings. As a result, when I first began the lesson I made a conscious effort to greet 雅婷 [Yating, tutor's name in characters] which made me feel less awkward by the English to Chinese translation and so more willing to communicate. (EJ7)

The process of reflecting on situations in the journals helped Ella tune into consciousness of her willingness in the openings and overcome her awkward feelings. Thus, she managed to adapt to the psychological situation. The result shows how WTCC is highly adaptive and can be understood in terms of changing possibilities.

However, this emergence of a new pattern of greeting behaviour does not necessarily mean that the previously pertaining pattern would be completely swept away. Instead, this newly reported WTCC and the general old UnWTCC co-existed for a time, suggesting the development of WTCC being "simultaneously continuous and discontinuous" (Van Dijk & Van Geert, 2007, p. 29). In Session 8, Ella reported her UnWTCC in the openings again, but she attributed it to an uncontrollable factor of the

scheduling of the class:

I felt most unwilling to communicate right at the beginning of class as I felt a little bad that I have had to move many classes this week which I felt is a bother for the teacher. I know it's fine, but I just feel bad. This affected my WTC at the start as I felt a bit awkward/anxious/impolite. (EJ8)

In the SCOLT environment, the tutorials are flexible for both tutors and learners. But it seems that the change of class time made Ella feel apologetic to her tutor, which further affected her WTCC in the opening. Thus, these data related to Ella's reflection about her WTCC in the openings and closings indicated that the fluctuations of Ella's WTCC were not linear and did not result in predictable behaviour.

5.3.3.3 Familiarising with the tutor

Ella's written reflection revealed that familiarisation with the tutor played a key role in her WTCC. As they grew familiar with each other over several sessions, rapport-building and fostering the tutor-learner relationship enhanced Ella's readiness to interact. She could even make jokes with her tutor, feeling more comfortable communicating with her.

Because I have had a few lessons with 雅婷 [tutor's name] now, I feel much more comfortable communicating in Chinese. I also feel like I can make jokes and 雅婷 will get what I mean. (EJ6)

I think also as this is my third session with 雅婷 (tutor's name) I feel much more willing to communicate in general and also ask her questions about what she thinks so our lessons feel much more like a natural conversation. (EJ3)

Drawing on findings in previous research (Mystkowska-Wiertelak & Pawlak, 2017; Zarrinabadi, 2014), it is not surprising that Ella described many ways in which her tutor positively affected her WTCC, such as the tutor's friendly demeanour (EJ4), her professionalism in devising interesting and interactive lessons (EJ7), and her pedagogical and affective support (EJ5, EJ8).

5.3.3.4 Uncontrollable factors

Another notable aspect which Ella's recounts in the journal is that her WTCC was influenced by uncontrollable factors, which are external or outside the SCOLT tutorials, such as tiredness from her work (EJ7), hot weather (EJ8), and anxiety during the session (EJ9).

I felt quite tired after work today as it's towards the end of the week and I think that had a big effect on my willingness to communicate today. I think when I feel tired I tend to cut corners a bit and not put my full self into something. (EJ7)

The weather is getting quite hot here in New Zealand and today it made me feel quite sweaty which affected my WTC. (EJ8)

I think I had a general feeling of anxiety throughout today's lesson – not due to anything in particular – I think I'm just feeling a little bit anxious in general lately which affected how I felt in today's class. (EJ9)

These external factors may have a profound effect on the readiness to contribute to the whole session, not only one single moment. This might also explain why Ella's Session-WTCC in these three sessions was at the same low level as that for Session 5 (70), whereas her average grid-WTCC was higher than the grid-WTCC in Session 5.

5.3.3.5 The benefits of self-reflection

In contrast to the factors above, which were beyond her control, two processes in this study involving StRI and writing journals, required Ella's constant self-reflection about her intention to communicate, which in turn influenced Ella's WTCC positively.

I think also talking about why I may be feeling apprehensive to speak Chinese at certain points is also helping me become more aware of what points I'm feeling less willing to communicate and why. This is inadvertently helping me tackle my own WTC issues! (EJ3)

Ella's comment reflects that her awareness of the situated, dynamic nature of WTCC emerged partly from oral and written self-reflection. In Ella's ability to overcome some

of the challenges in communication which she had reflected on in her journal, we see the value of the perspective which sees as an intention to communicate when an opportunity arises. Ella also mentioned that her feelings impacted her WTCC, so she constantly and consciously adjusted her feelings to face the challenges.

5.4 Level 3 Dynamics of Idio-WTCC in Single Interactions

This section illustrates the variations of Ella's Idio-WTCC from moment to moment in three sessions in which the idiodynamic method was conducted. It presents the results in individual idiodynamic sessions to describe and understand the complex, dynamic, and nonlinear nature of Ella's Idio-WTCC at particular moments. These findings were triangulated through quantitative data (self-ratings of WTCC) and qualitative data (video recordings of the SCOLT sessions and stimulated recall interview transcripts).

Next, I will discuss the results from the idiodynamic method in detail to investigate why Ella chose or avoided communication in SCOLT-WTCC at specific moments to deepen understanding of WTCC. As explained above, because of the time and effort required for this method, I conducted the idiodynamic methods after only three selected sessions (Sessions 2, 6, and 10). Data were generated on a per-second basis using the idiodynamic method of data collection, and a considerable amount of information was generated over these three sessions. Three composite charts were prepared (one for each session) to map the idiodynamic data against the various pieces of contextual information.

Figure 5.6, reproduced on the Visio, offers an illustration taken from SCOLT-WTCC 2, in which the session topic is "travel experience", based on one of the hobbies Ella mentioned in the introduction session (Session 1). As can be seen, the horizontal axis represents time, and the two solid lines added manually to the horizontal axis represent time without WTC ratings, one between the two bitmaps was 3 minutes 24 seconds in length and the other after the second bitmap was 2 minutes 43 seconds in length. The

purpose is to show continuous change of WTC in the whole SCOLT session. Right underneath the bitmaps, the first level of the *activity blocks* indicates the events making up the SCOLT session (e.g., “reviewing the words”, “learning new words”). The second level presents episodic instances which were emergent and unpredictable. For example, in Session 2, “direct learner’s attention to a specific slide” was a salient phenomenon, indicating that due to the unstable internet, WeChat substituted for ZOOM as the teaching environment. With no screen sharing function on WeChat, the tutor had to give more complex directions for Ella to follow as she switched between ZOOM and WeChat. The last level of the yellow-colour blocks contained perceptions provided by Ella in the stimulated recall interview (StRI). I will unpack selected moments to reveal Ella’s evolving WTCC and perception of it.

5.4.1 SCOLT-WTCC 2 “I did not know how to say certain words”

As indicated above, in Session 2, the tutor used WeChat to communicate with Ella, supplemented by a set of PowerPoint slides which she sent to Ella at the beginning of the session and which Ella then had to open independently on her own computer. This session was devoted to discussing “some interesting travel experiences”, in which Ella’s Idio-WTCC ratings showed continuous fluctuations over the session (see Figure 5.6). From her explanations, linguistic aspects (such as lacking technical vocabulary, being unwilling to repeat unfamiliar words, or being able to formulate the answer with specific grammatical structures), affective factors (such as apprehension, anxiety, fear of uncertainty), and topic knowledge were the main causes of the changes.

Ella’s rating fluctuations were recognisable at the very beginning of this session. There were two salient drops to -5 in the first three minutes. The first drop occurred due to the need to download the slides before the session commenced. This sudden shift from ZOOM to WeChat created a situation where Ella had to use precise technical words to describe her actions, such as “download” and “open”. However, vocabulary inadequacy

was found to inhibit her WTCC.

As Table 5.4 shows, Ella’s Idio-WTCC dropped instantly when Yating asked if she had opened the PowerPoint slides (Line 1). Ella did not know how to describe her situation (Line 2) and then answered it by combining the English word “load” (Line 4). The tutor rephrased Ella’s answer in Chinese to say, “the PowerPoint is downloading”, but Ella misunderstood the meaning of 在¹ as the preposition followed by places rather than the present-continuing indicator, so she asked, “where is it?” (Line 6). At this point, Ella’s Idio-WTCC decreased to -4.

Table 5.4

Extract of Ella’s conversation (Time 0’27-1’01)

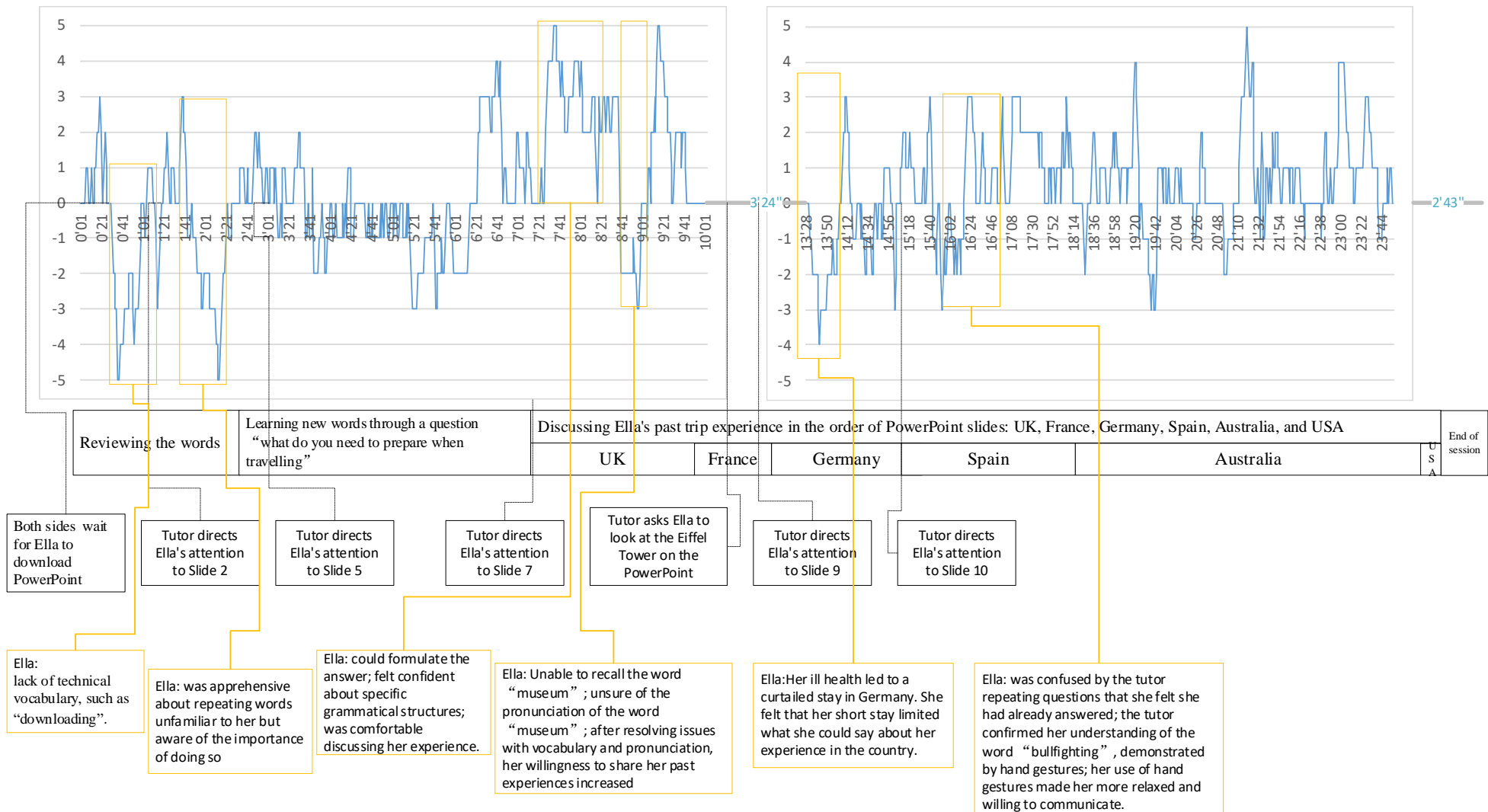
Turn	Original utterances and juxtaposed ratings	Translations
1. Yating	⁰⁰⁰⁰ -1 嗯, 好 ⁻² , 你打开 PPT 了吗 ⁻² ?	Um, okay, have you opened the PowerPoint?
2. Ella	嗯 ⁻³⁻³⁻⁵ , 嗯 ⁻⁵ , 现在 ⁻⁵ 4ti ⁻⁴ 了 ⁻⁴ 。	Um, um, now it <i>ti</i> (documented based on its sound, potentially a pronunciation error, non-translatable)
3. Yating	打开了 ⁻⁴ ?	Is it opened?
4. Ella	呃 ⁻³⁻³⁻³ , 就是 ⁻³ load ⁻² 。	Eh, it’s loading.
5. Yating	哦 ⁻² , 在下载 ⁻² , PPT 在 ⁻² 下载 ⁻³ 。	oh, it’s downloading, PowerPoint is downloading
6. Ella	⁻⁴ 嗯 ⁻³⁻³ , 在 ⁻³ 哪儿 ⁻³ ?	Um, where is it?
7. Yating	download ⁻² , PPT ⁻¹ [download ⁰ .	Download, PPT download
8. Ella	[哦, yeah ⁰ .	Oh, yeah

Note: the symbol [refers to overlapping utterances

¹ 在 has two meanings, one refers to something or someone is in the process of doing if 在 is followed by a verb or action; another one means the existence which can be followed by a position, or a place etc.,

Figure 5.6

Case Ella idiodynamic ratings in SCOLT-WTCC 2

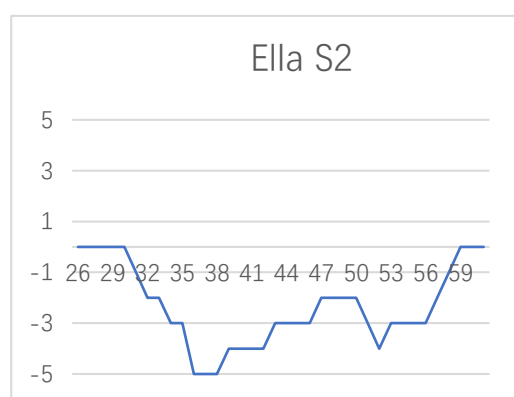


In the ES2, Ella attributed this drop to -5 (see Figure 5.7) because she was short of specific technical words in this emergent situation.

Cause I did not really know how to say like the certain words, and I think I was a bit like “should I try to say as much as I can in Chinese and just like fill it in with English words.”... Cause the PowerPoint was kind of loading quite slowly... I think that kind of made me feel a bit like more like anxious. Cause I also didn’t know what I was going to be looking at, I think as well, cause that uncertainty (ES2).

Figure 5.7

Extract of Ella’s output graph (Time 0’27-1’01)



This statement also suggests that the uncertainty of upcoming content influenced her WTCC because the two participants were looking separately at PowerPoints on their respective screens. They were not able to both attend to the PowerPoint slides using the cursor as they would have been able to on the ZOOM shared screen. In online settings, communication requires creating a sense of presence that facilitates meaningful and smooth interactions. However, it was apparent from the video analysis that because of using WeChat, which does not have a shared screen option the tutor had to draw Ella’s attention to the section in the PowerPoint slide while constructing the conversation (see episodic instances shown in Figure 5.6). Therefore, the social presence decreased as the tutor and Ella were more attentive to two different online social spaces that mediated their conversation. Ella emphasised the importance of the shared screen function in one-to-one circumstances because the shared screen might help her mitigate confusion about the tutor’s speech, which mediated their effective communication:

When you're in a class, like doing the one-on-one class and when you already have the PowerPoint there and the teacher teaches something and if you don't know the word, you can relate it back to the PowerPoint. (ES2)

The second drop of Ella's Idio-WTCC ratings to -5 occurred as they were reviewing the words from the previous session. There were four words that Ella needed to repeat after her tutor and her Idio-WTCC gradually decreased after the first word as can be seen in Table 5.5 and Figure 5.8. As she repeated *hotpot* (Lines 2 and 4), her WTCC dropped to -1; for *play mahjong*, it decreased to -2 in Line 6, even to -3 in Line 8; for *Sichuan opera mask*, it dropped back to -3 in Line 10, even to -4 in Line 12. For *panda*, her WTCC increased a little, but was still negative. In her ES2, she first acknowledged the importance of reviewing words but then immediately raised her voice to express her unwillingness to do this task, because she feared making mistakes in repeating unfamiliar words:

But I just sometimes feel, I think, like, oh! [raising her voice] I don't want to say it because I'm going to say it really wrong, like, something like I am more familiar with the word 火锅 (hotpot), so I think I was like not as scared to repeat that word but when it came to like 打麻将 (play mahjong), 川剧变脸 (Sichuan opera mask), I was a bit more apprehensive. (ES2)

Table 5.5

Extract of Ella's conversation (Time 1'35 -2'21)

Turn	Original utterance and juxtaposed ratings	Translations
1. Yating	⁰ 我们先 ¹ 来复习 ²³ 嗯 ³ 火锅 ²	let's review first, um, hotpot
2. Ella	哦 ² 火锅 ⁻¹	Oh, hotpot
3. Yating	嗯, 火锅 ⁻¹	Um, hotpot
4. Ella	⁻¹ ⁻¹ ⁰ 火 ⁰ 锅 ⁻¹	hotpot
5. Yating	打麻将 ⁻¹	Play mahjong
6. Ella	⁻¹ 嗯 ⁻¹ , 打麻将 ⁻²	Um, play mahjong
7. Yating	打麻 ⁻² 将 ⁻²	Play mahjong
8. Ella	⁻² ⁻² 打 ⁻³ 麻 ⁻³ 将 ⁻³	Play mahjong
9. Yating	嗯, 很 ⁻² 好, 川剧 ⁻² 变脸 ⁻²	Um, very good, Sichuan opera mask
10. Ella	⁻² ⁻² 川剧 ⁻³ 变脸 ⁻³	Sichuan opera mask
11. Yating	⁻³ 川剧 ⁻³ 变 ⁻³ 脸 ⁻³	Sichuan opera mask
12. Ella	⁻³ 川剧 ⁻⁴ 变脸 ⁻⁴	Sichuan opera mask
13. Yating	嗯, 非 ⁻⁵ 常 ⁻⁵ 好 ⁻⁵ , 熊猫 ⁻⁴	Um, very good, panda
14. Ella	⁻³ 熊猫 ⁻³	panda
15. Yating	熊猫 ⁻²	panda
16. Ella	⁻² 熊猫 ⁻¹	panda

Figure 5.8

Extract of Ella's output graph (Time 1'35 -2'21)



They moved on to discuss Ella's past travel experience in different countries after 7'22. Generally, her WTCC increased when she was able to describe her own experience and decreased for inadequate vocabulary. The relevance of different factors varied over time. Certain relevant influences might be consistent from one moment to another. For example, failing to retrieve a word seemed to lower her Idio-WTC. During the conversation about Ella's experience in the UK (7'22 to 10'00), her WTCC increased to +5 twice because of her adequate vocabulary (e.g., making a snowman, the name of the city) and sentence structure (e.g., from...to...). However, difficulty in retrieving other words suppressed her Idio-WTCC. There was a short and sudden drop from +3 to -2 around 8'41 due to unsuccessful retrieval of the word "museum". Soon after, Ella again failed to retrieve the word "museum" in discussing a trip to Germany, and her WTCC dropped to -4 at 13'42.

But even small changes in context can produce large effects by altering the key factors that influence Idio-WTCC at a particular time. For example, moving on to her visits to Spain and Australia, Ella compared two moments to demonstrate how Pinyin (a

phonetic system in Chinese) influenced her Idio-WTCC. As she discussed the trip to Australia, there was Pinyin on the PowerPoint slides that enabled her to say specific words related to animals (see Figure 5.9). Ella pointed out in ES2 that this helped her refer back to what they had been talking about, therefore, she was highly willing to talk (WTCC+5 at 21'20). As she said:

Cause I knew how to say animal, the Pinyin was there, and I think being able to refer back to that was really helpful. Whereas on the Spanish slide, it was the 斗牛[bullfight], and I knew that those were the characters of matador, or bullfight. But I was like trying to remember like how to say...when I was talking about Spain. (ES2)

Figure 5.9

Two PowerPoint slides presented during conversation about Spain and Australia

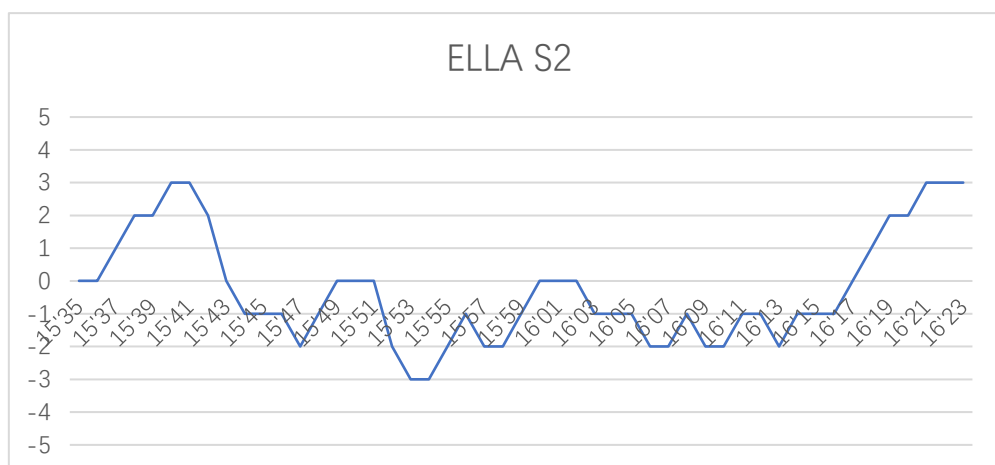


Note. Orange brackets were added as translations

The above statement reveals the importance of Pinyin for Ella’s Idio-WTCC, especially in the absence of a shared screen. In their conversation about Spain, Ella had to remember the words 斗牛 (bullfight) without Pinyin. Before this, she was already oriented to the PowerPoint slide about Spain. However, she got confused after repeatedly being asked the same question about if she had seen bullfighting. She then moved on to the “Australia” slide and asked her tutor if they were talking about “Australia”. The absence of the shared screen and Pinyin resulted in their faltering conversation. They spent some time re-gaining a shared understanding of what they were talking about, while Ella’s WTC stayed negative during this period (see Figure 5.10).

Figure 5.10

Extract of Ella's output graph (Time 15'35 -16'23)



After a little while, with their collective efforts, Ella and Yating exercised their agency to arrive at a co-constructed understanding. Yating used the digital dictionary on her phone to play the English word *bullfight*. Meanwhile, Ella was delighted and excited when she waved her hands to imitate the bullfighter (see Figure 5.11), despite her Idio-WTCC being -1 at that moment. But once she received confirmation from Yating that they were finally back on the same page and could continue their conversation, her Idio-WTCC rapidly increased from -1 (16'16) to +3 (16'21), and she explained this increase in ES2:

When I was, “is this [a gesture referring to bullfight]?”, and she confirmed “yeah, that’s it”, and it made me feel a little better, “oh I was right”, like my previous assumption of what the word was right...when I do gestures it helps as well. (ES2)

Figure 5.11

Ella used gestures to guess the word bullfight



Overall, Ella's Idio-WTCC ratings varied ranging from -5 to +5 over the session. Lacking a shared screen, linguistic challenges, and affective factors (such as apprehension, anxiety, and fear of uncertainty) were the leading causes of the fluctuations in her Idio-WTCC ratings.

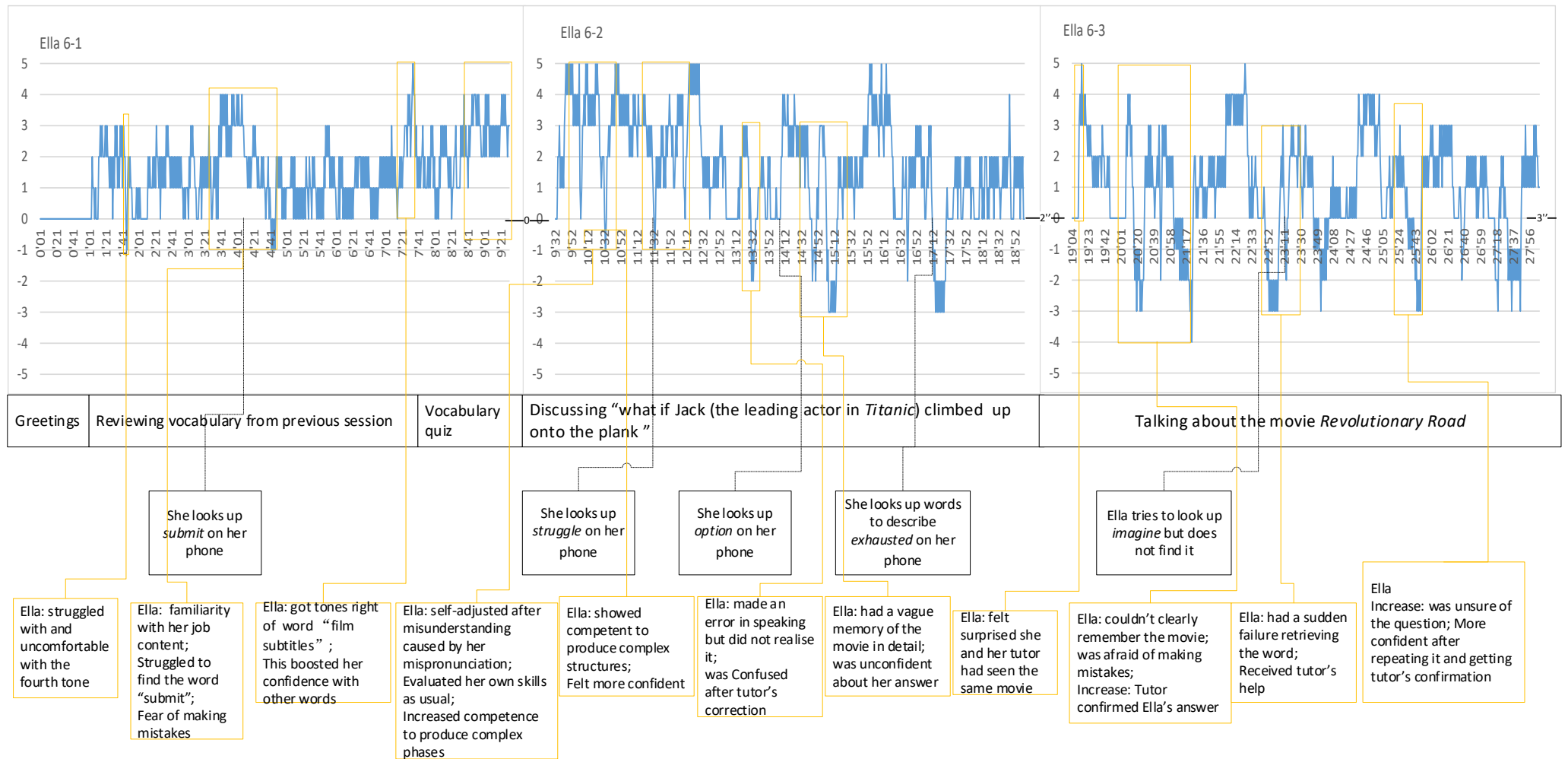
5.4.2 SCOLT-WTCC 6 “I wasn't really confident in my knowledge of that context”

Session 6, where the idiodynamic method was applied, built on the discussion of movies in Session 5, and based on the proposition, “what if Jack (male lead in the movie *Titanic*) had climbed up the plank”. After completing Session 6, Ella sent me her journal. Thus, the data from this journal were also included in this account of Session 6. She reported in her journal that she felt high willingness to communicate during the whole session due to her familiarity with the tutor and the routine of the session.

From a micro-perspective, Ella's Idio-WTCC graph displays continuous fluctuations over the session, indicating that her communication is affected by the co-existence of approach and avoidance tendencies. This was clearly shown during the discussion of the two movies where the driving forces (such as interest in the topic of movies and shared hobbies) and the restraining forces (the vagueness of her memory of the movie details) jointly interacted to influence Ella's Idio-WTCC. In addition, these conflicted moments (MacIntyre, 2007; MacIntyre et al., 2011) also occurred when they reviewed words, as is revealed by combining Ella's journal data and idiodynamic method data.

Figure 5.12

Case Ella idiodynamic ratings in SCOLT-WTCC 6



Even though reviewing words was the most UnWTCC moment that she reported in the journal, she still held a positive attitude toward this exercise “because I know that the exercise is really helpful for my pronunciation” (EJ6). Her perception of the usefulness of reviewing words in this session was reflected in her Idio-WTCC ratings. Unlike her general negative Idio-WTCC ratings for reviewing words in Session 2 (see Figure 5.8), her ratings mainly displayed modest positive values in this part. Around 7’25, it gradually increased to +3 when she repeated the phrase 电影台词 (movie lines), and she stated in ES6 that she felt competent in this phrase. She also described the carry-over effects (MacIntyre & Legatto, 2011) from this moment to the words 木板 (wood board/plank) (Idio-WTCC +4) and 冰川 (glacier) (Idio-WTCC +5).

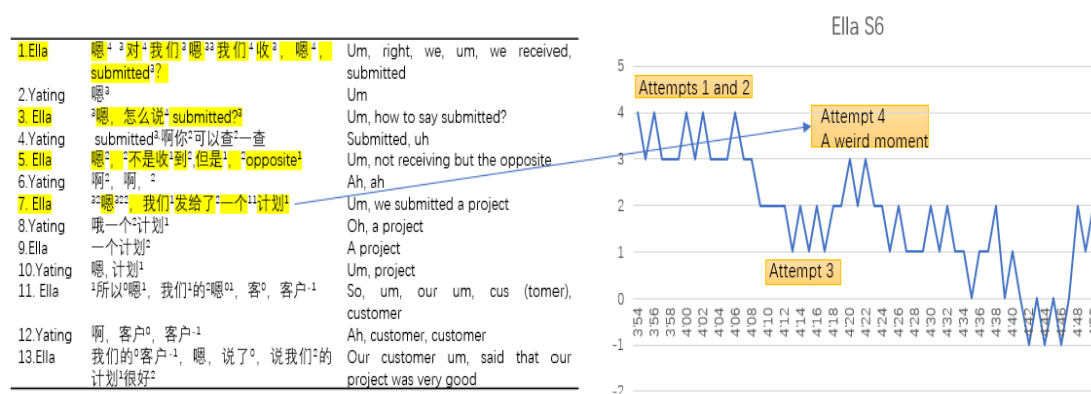
At one point, as they were reviewing words, Ella experienced what she called “a weird moment” to describe her sudden realisation she did not need to persist in finding the appropriate translation of a specific English word for meaning making. This moment started when they reviewed the word 内容 (content), and the tutor asked a question about Ella’s job. Ella’s Idio-WTCC initially increased to +4 around 3’43 because, as she explained in ES6, she was familiar with her job and knew how to say a related word indicating the sector she was in, 广告 (advertisement). However, when she tried to talk about a recent project, she had difficulty using “submit” in Chinese. As shown in Figure 5.13, Ella actively attempted four times to find out how to say it. First, she said it in English with a questioning tone (Line 1), but her tutor did not respond (Line 2). Then she directly asked, “how to say submitted?” (Line 3). The tutor did not understand the English word and asked Ella to search for it (Line 4). Her Idio-WTCC did not drop until she attempted the third time by looking for the word in her familiar translation app. She came up with the antonym *submit* (Line 5), but it seemed that her tutor still did not get the meaning she was trying to convey. Ella said in ES6 that the app was sometimes hard to find the proper word in context, and on this occasion the app offered a word equivalent to the meaning of *submit* though, “like obey, be obedient to comply with, submit to, like that random thing that wasn’t what I was expecting”. The emergence of

unhelpful suggestions from the digital dictionary did decrease her Idio-WTCC to +1, which also affected her effective communication.

Although these three attempts failed, Ella successfully made a fourth attempt using 发给 (to send to, or to distribute to) as a synonym for *submit* to continue her conversation. She explained in ES6 that she suddenly realised that she did not need to know the Chinese word for *submit*, and in her perception, she thought this was “a weird moment”, which reveals Ella’s complex thinking process and her Idio-WTCC went back to +3 (see Figure 5.13). However, this positive evaluation about her active attempts was vulnerable to her struggle in pronouncing the fourth tone in the word 客户 (client, kèhù), which suddenly sacrificed her WTCC that dropped to -1.

Figure 5.13

Extract of Ella’s output graph and conversation excerpts (Time 3’54-4’50)



Moving to the discussion about what might happen if Jack had survived, Ella recalled the most WTCC moment was when the question “如果 Jack 爬上了木板 (what if Jack had climbed up the plank)” was shown in the PowerPoint slide. She wrote in her journal that what helped at that moment was that she understood the sentence, adding, “this assumption was humorous as there was lots of pop culture surrounding the fact that there was space on the wooden board for Jack”, which means there was a chance for him to survive. This most WTCC moment is also observable from her high idiodynamic ratings from 9’40 to 12’32, during which the ratings hit +5 many times, suggesting that

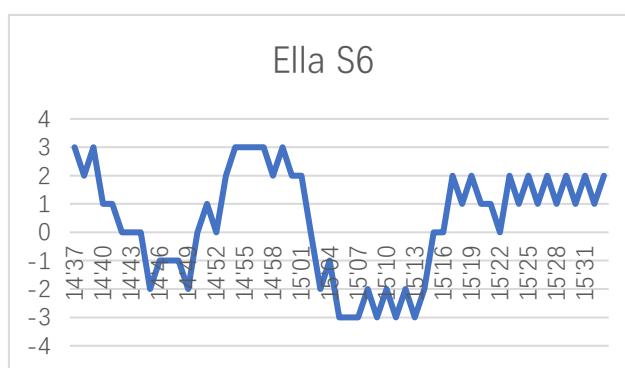
humour and enjoyment contributed to her rising WTCC.

One of these drops occurred when the tutor asked her about the two characters' possible jobs if Jack had survived. During this period, from 14'37 to 15'33, Ella experienced two significant drops into the negative area (see Figure 5.14). In ES6, she attributed the drops to the difficulty of making solid assumptions about the characters' future profession due to her vague memory of the movie. Even though the question, in this case, was open-ended, Ella mentioned that her desire to experience the certainty of everything affected her readiness to talk:

Because I didn't know enough about the characters of Jack and Rose from Titanic...because I wasn't really confident in my knowledge of that context...so I'll be like in my head, it takes a lot for me to be like really sure about something.(ES6)

Figure 5.14

Extract of Ella's output graph (Time 14' 37-15'33)



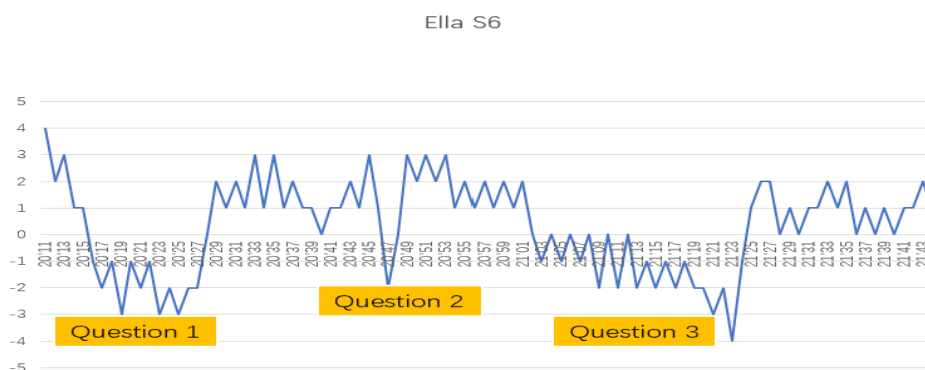
Ella's vague memory of the movie and desire for certainty also influenced her Idio-WTCC in discussing the second movie *Revolutionary Road*. There were three factual questions related to *Revolutionary Road*: what the characters' jobs were, what their jobs were like, and what this couple's relationship and family life were like. Figure 5.15 shows that each of the three times Ella's Idio-WTCC went below 0 when the tutor asked her one of these questions. Yating had already supplied the answers on the PowerPoint slides, and Ella turned her gaze to the PowerPoint, looking for clues, but her responses were full of uncertainty because she answered them with an interrogative tone.

However, once she got confirmation from her tutor, her Idio-WTCC recovered.

Ella stated in ES6 that she was unsure about her answers because she could not remember the details of the movie, although she found that those pictures did help her. She said, “I just felt like quite hesitant cause I don’t want to get it wrong even though like the pictures were there”. She reiterated that she was the type of person who was scared of being wrong, not just in Chinese classes but all classes. Once she got confirmation from her tutor, she felt relieved because she was right.

Figure 5.15

Extract of Ella’s output graph (Time 20’11-21’44)



Generally, the co-existence of approach and avoidance tendencies caused Ella’s Idio-WTCC to fluctuate from -4 to +5. In particular, when they were discussing the two movies, Ella’s interest in them increased her Idio-WTCC, and her fear of uncertainty held her back.

5.4.3 SCOLT-WTCC 10 “I could talk a lot”

Session 10 was dedicated to the task of making travel plans. As can be seen in Figure 5.17, Ella’s Idio-WTCC this session shows mostly remained positive but is still in a constant state of flux. Ella attributed topic knowledge and preparation for the tasks to raising her Idio-WTCC. She attributed minor drops in Idio-WTCC to uncertainty about the tutor’s intention and lacking cognitive resources in performing the multi-tasks of

writing notes and responding to the tutor’s questions. Besides, she highly valued the structure of the session in ES10, “the structure of the lesson, I think, it works really well, cause it builds up to progressively getting harder, I think, but in a good way.”

The session started with several technical check-ups from the tutor, and Ella’s WTCC stayed for 25 seconds in the negative area from 0’6 to 0’30 (see Figure 5.16). In the first check (lines 1 and 2), Ella’s rating did not change. However, from the second check (lines 3 to 8), Ella’s WTCC decreased and stayed in the negative area for 25 seconds. Ella reported in ES10 that she was confused about the tutor’s repeated technical checks and was trying to guess her intention, “does she want me like to repeat the sentence?” Ella consistently engaged in the metacognitive analysis of her language performance. She was aware of her habit of avoiding providing full-sentence answers, “I think it (repeating the whole sentence) is like a good habit, personally like when I was watching over my video, I really give a lot of one-word answers, and I should really be trying to do like full word answers” (ES10).

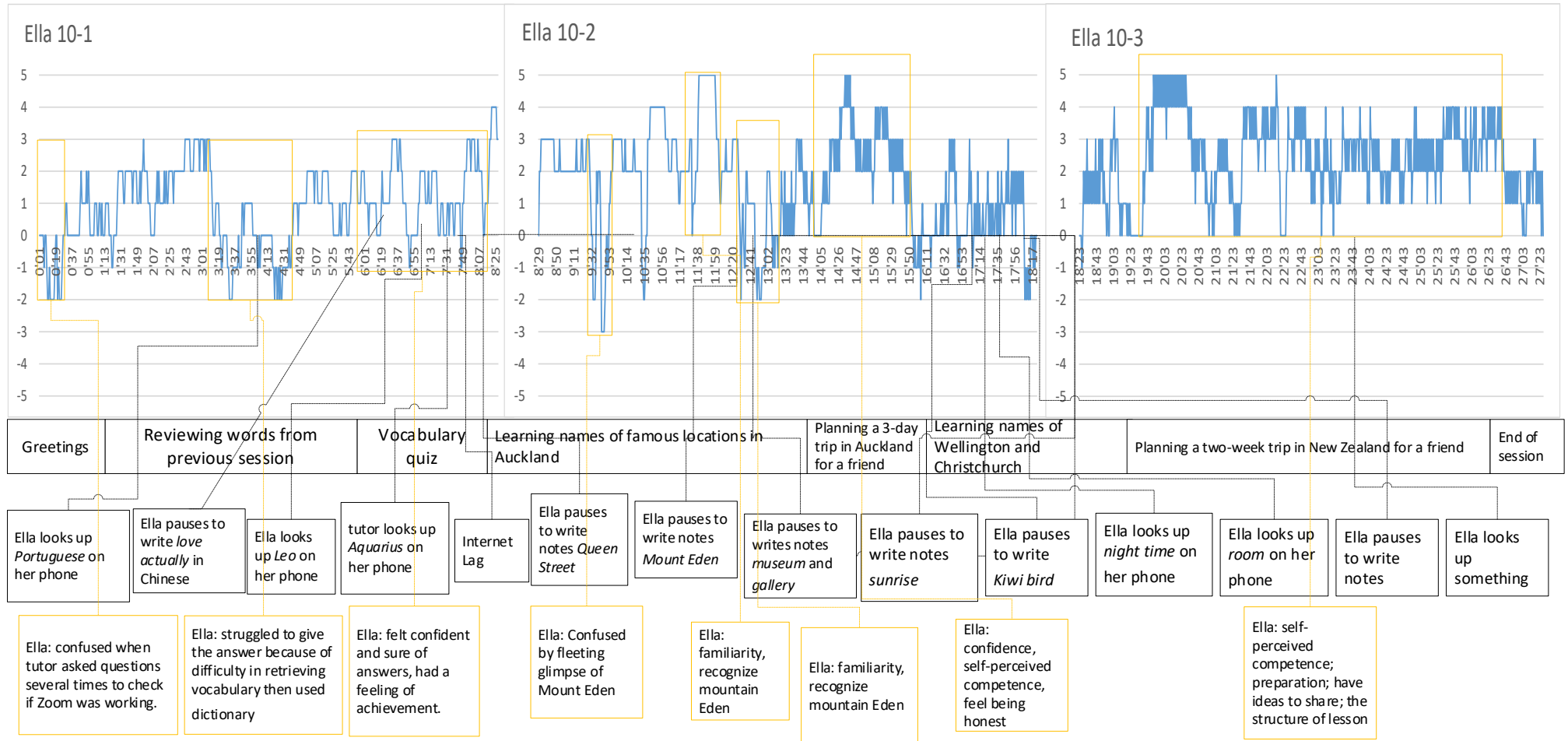
Figure 5.16

Extract of Ella’s output graph and conversation (Time 0’0 -0’31)



Figure 5.17

Case Ella idiodynamic ratings in SCOLT-WTCC 10



There was one “weird” moment around 2’57 when the tutor asked her about her favourite part of the movie *Love Actually*. Ella’s Idio-WTCC dropped as she tried to find an accurate translation to form her answer to the question on the spot (see Figure 5.18). In answering the question, even though she encountered difficulty with the word *Portuguese*, she used strategies by using two different verbs to collocate with it: *use Portuguese* and *speak Portuguese* to explain the meaning of *Portuguese*. At that moment, her Idio-WTCC increased and stayed at +1. She recalled her gut feeling about adjusting her approach from being stuck on the first explanation that came to mind to being open to the other ways to explain:

Initially I was a bit like “how do I say that?”...I have noticed like there’s so many times I was initially like, how do I like explain that? and then I think when I’m thinking about like the English translation, and I’ll be like I think of like a certain sentence and then I realise I can explain the same thing but not exact meaning. (ES10)

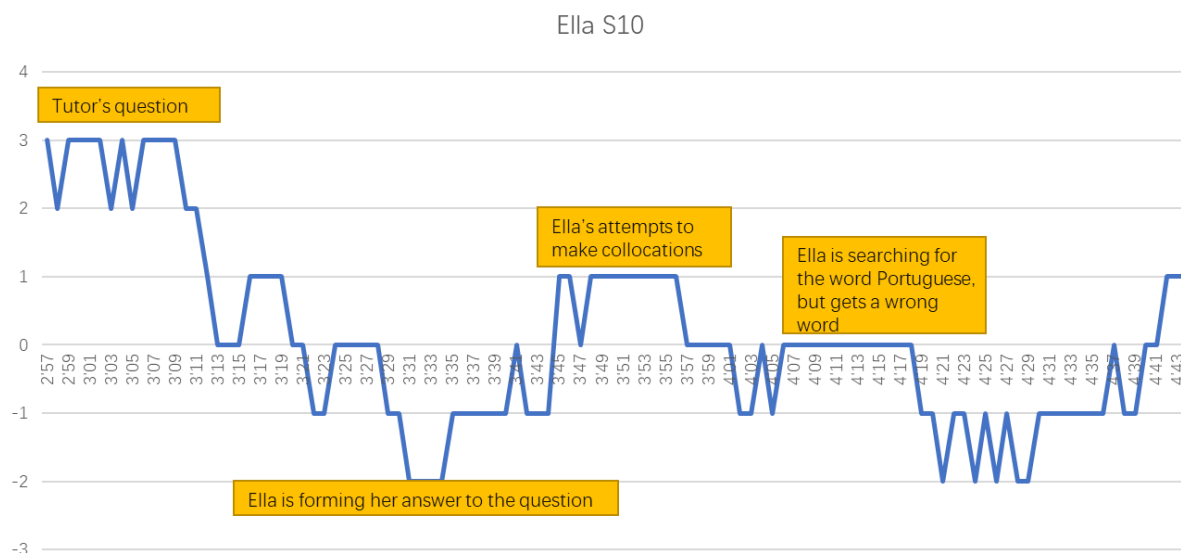
There was little time to construct an answer based on finding a specific word or sentence in rapid interactions. This statement also suggests that Ella had become more aware of her behaviour. She was moving away from being too focused on linguistic aspects and used different ways to make meaning for communication. However, this positive and active involvement was vulnerable to her failure to search for an accurate word for *Portuguese* using the digital dictionary and her Idio-WTCC decreased.

Small changes in one part of the system may have significant effects on the overall system and vice versa. There was a quick succession of slides of prominent Auckland landmarks as the tutor introduced relevant new words. Such a rapid change in PPT slides quickly lowered Ella’s Idio-WTCC from +3 (9’29) to -2 (9’33). She said in StRI that she was confused about the PowerPoint sequence because of internet delays. It was often the case that the tutor clicked to move on to a new slide at her end while asking questions to Ella, but the new slide was not immediately reflected on Ella’s side. She tried to explain that she wanted to talk about the first flashed picture, as she felt highly willing to speak at that moment, but her tutor insisted that she referred to the picture

currently displayed on the screen, so Ella's WTCC dropped.

Figure 5.18

Extract of Ella's output graph (Time 2'57 -4'44)



Turning back to making plans for a three-day trip to Auckland and a two-week trip around New Zealand, the tutor had previously taught Ella some famous locations in Chinese relevant to both tasks. In general, Ella was willing to speak as her Idio-WTCC mainly stayed over +2. In the first task, reflected in the video recording, Ella talked about the three-day trip for over one and a half minutes. Her tutor only responded with “hmm” during this period to encourage Ella to keep talking. In ES10, Ella explained that her familiarity with the city enhanced her eagerness to communicate and her knowledge of the required vocabulary and sentence structure increased her confidence:

I felt like at that stage I had a lot to talk about not just what I just learned, I could incorporate a bunch of vocabulary. I felt like I felt a lot more confident in my ability to talk about making a plan for going around Auckland. (ES10)

Another reason was the feeling of being immersed in authentic communication, as follows:

Cause I think like I just learned all that vocabulary and I also like knew the word for zoo and

I would recommend you go to the Auckland Zoo, Yeah, I felt like I was also being honest as well. (ES10)

In the second task (19'35-26'34), in addition, Ella realised that learning new words beforehand reduced the difficulty of searching for the relevant vocabulary and eased her into the task.

because we talked about like we talked about all those cities beforehand so we, used the words like 博物馆(museum) ...I felt like I could use it...I felt like that contributed to my feeling of having more things to talk about. (ES10)

Ella's only difficulty in the second task was that she did not know how to describe one site, around 20'52, which decreased her Idio-WTCC.

I struggled a bit was when I was talking about going to the Lord of the Rings Museum in Wellington. Cause I didn't know, it's really Lord of the Rings Museum but it's kind of like cause it's Weta Workshop... that was like the only stage I was kind of like, whoa, I don't like. (ES10)

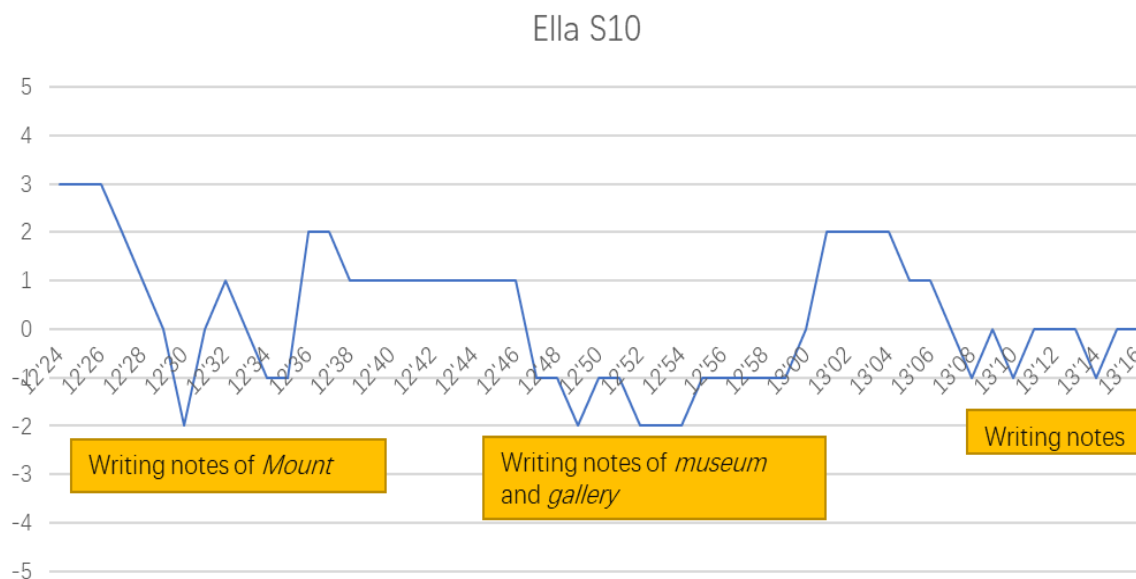
In general, Ella was highly willing to share in both tasks. However, it is worth noting that her WTCC dropped below zero by the end of the first task as she was making a note of a new item of vocabulary. The effect of writing notes during the conversation was observed in other moments (see episodic instances in Figure 5.17). She jotted down notes several times when learning new words. At one point, this caused a drop to -2 (at 12'31) and a silence of five seconds after her tutor turned to a new slide and asked her a question. The other two drops to minor also related to Ella's notetaking moments. Due to the split focus, Ella noticed that she often gave one-word answers to her tutor's questions, which she felt was rude. In contrast, whenever she stopped taking notes and was trying to engage in conversation, her Idio-WTCC increased.

To sum up, at the micro-level, the dynamics of Ella's Idio-WTCC in individual interactions show Ella's idiodynamic ratings fluctuated significantly in general. These fluctuations can be explained by many themes revealed in both stimulated recall data and her journals, including the need for vocabulary and grammatical structure, low

tolerance of uncertainty, as well as anxiety. With the finely focused attention of the idiodynamic method, Ella herself realised that her WTCC changed rapidly and situationally, for example, in response to a briefly seen picture of Mount Eden (SCOLT-WTCC 10), or to a divided focus leading to short answers while writing notes (SCOLT-WTCC 10), or to inaccurate words from the dictionary (SCOLT-WTCC 6). A striking feature of Ella's StRI data on this level was the importance of familiarity, such as familiarity with the movies discussed, familiarity with factual information (Session 6 *Revolutionary Road*), familiarity with a context enabling speculation (Session 6 *Titanic*), and familiarity with the cities being talked about (Session 10).

Figure 5.19

Extract of Ella's output graph (Time 12'24 -13'16)



5.5 Tutor's and Learner's Perceptions of Ella's WTCC: Align or Diverge

Thus far, this chapter has analyzed Ella's own ratings of her WTCC using different instruments (Session-based WTCC scale, WTCC grid, journal, idiodynamic method and StRI). As indicated in Chapter 4, there was a further process of data collection involving tutors' perceptions of their paired learners' WTCC because of the importance of the tutor's sensitivity to the learner's state of mind allowing for remedial action if required. The data are generated from the same three sessions, 2, 6, and 10, where Ella and the tutor applied the idiodynamic method.

In this section, I will consider how the findings from data collected from the learner align with those from the tutor. By triangulating tutor and learner perceptions, this section is going to provide a more comprehensive picture of Ella's Idio-WTCC and identify any gaps, differences and points of convergence between the perceptions of the two participants. Generally, Yating's ratings were mainly sporadic and less extreme than Ella's throughout the sessions. No clear tendency was noticeable when comparing the output graphs of Yating and Ella's ratings in the three idiodynamic sessions, but some loose overlaps are observable. Rather than giving an exhaustive account, I will choose a single section from each of the three sessions to consider the degree of alignment.

5.5.1 SCOLT-WTCC 2 "We were actually in two spaces, and then we were doing the same thing"

As mentioned, Session 2 was conducted on the WeChat platform, and Ella was in charge of navigating the PowerPoint slides responsive to the tutor's instructions. During this period, Ella's Idio-WTCC stayed in the negative area from 0'27 to 1'01 (see Figure 5.20). Yating's assessment of Ella's WTCC in the same period similarly showed a negative rating, -2, the lowest score she gave for the session. As noted in her StRI, the reasons Yating gave for assuming that Ella had low WTCC at this point were indeed

similar to those given by Ella herself.

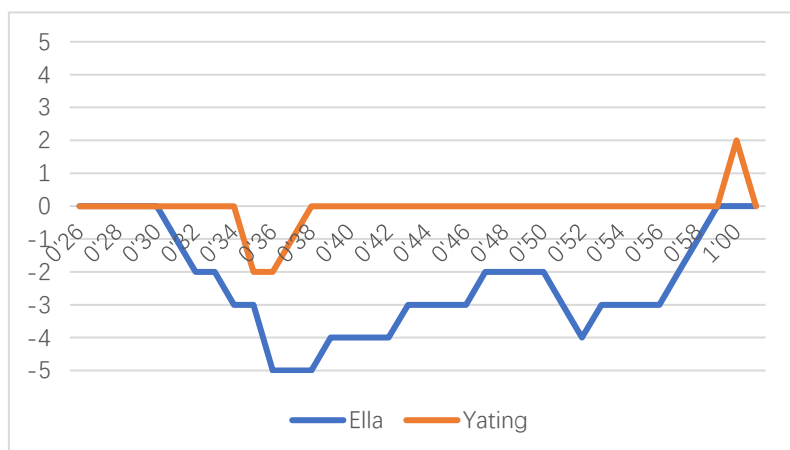
The first reason suggested by Yating was the decreased social presence caused by the absence of screen-sharing. As a result, the feeling of being in different physical settings became more salient at this moment:

We finally used WeChat. At first, I sent her my PPT separately due to no screen-sharing available on WeChat. However, because we couldn't use ZOOM's share screen function, she was downloading the PPT at that time, and I opened my PPT on my computer. We ended up each looking at the same PPT but were actually in two spaces and doing the same thing synchronously.

最后我们采用微信来[上课]。一开始呢就是我是单独把 PPT 发给她的，因为我无法共享屏幕。用微信的话，所以其实就是她自己在下载我发给她的 PPT，然后我又在我电脑上打开我的 PPT，所以其实我们是在两个空间，然后自己同步地做一些事。(YS2-E)

Figure 5.20

Idio-WTCC ratings for Ella and Yating's ratings of Ella from 0'27 to 1'01 in SCOLT-WTCC 2



Yating also recognised the linguistic challenges contributing to Ella's low WTCC:

First, she said she was downloading [in English], and I said it in Chinese. She did not comprehend it. So I think that not knowing the word was also a factor affecting her willingness to communicate as she probably didn't want to say much at that time - the communication was not particularly coherent.

最开始就是她说她在下载的时候，然后我说的是中文下载，然后其实她没有听懂，然后就是感觉在这中间可能就是因为词语上听不懂的这样一个因素吧，我觉得她可能在那

个时候不太想要表达一些多的东西，因为可能沟通不是特别连贯。(YS2-E)

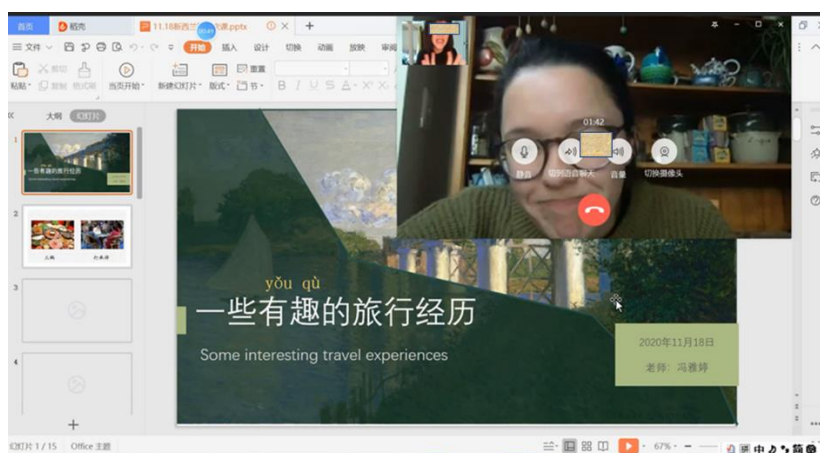
Yating assumption was also based on the pensive facial expression Ella revealed around 0'49 (see Figure 5.21), puckering her lips, and she interpreted that as Ella's reluctance to communicate:

I am not sure if my observation was correct. I interpreted this expression [see Figure 5.21] that she might feel reluctant to communicate at that moment.

我不知道我观察对不对，就是她那个嘴巴有点这样子，所以我当时觉得有点不太想表达。(YS2-E)

Figure 5.21

Yating's observation of Ella's facial expression of unwilling to communicate



5.5.2 SCOLT-WTCC 6 “Because her answer was beyond my expectation”

In session 6, Yating was satisfied with Ella's performance when discussing the two movies and commented in StRI that “我觉得她总体表达意愿都挺高...她的表达也挺流畅，所以我觉得她的表达意愿比较稳定” (I think Ella's WTCC was relatively high and stable in general because of her coherent communication). Generally, Yating's ratings of Ella's Idio-WTCC fluctuated from -1 to +3, and the rating of +3 occurred when they talked about the two movies. Although both indicated a fluctuation, Yating's was less extreme than Ella's, and her assumptions about the cause differed from that of Ella. There was one moment that did not align, during which Yating was surprised by

Ella's answer when she speculated on what the lives of the characters in *Titanic* would have been if Jack had survived (around 12'10).

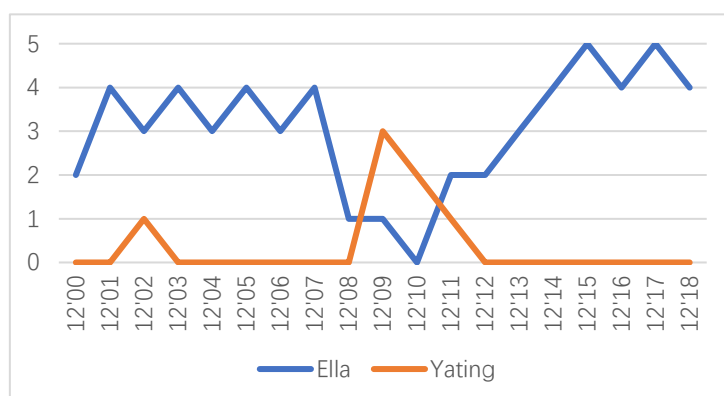
As Figure 5.22 shows, Ella's Idio-WTCC dropped to 0 and then went back to +5, whereas Yating assessed it as +3 at this moment. In YS6-E, she attributed the positive ratings to Ella giving an answer beyond her expectation. Based on the presumption that love was wonderful, Yating thought Ella would have made an optimistic assumption for the main characters' lives, but Ella gave the opposite premise. Thus, Yating believed that this question had stimulated her learner to think more:

Because my anticipation was that she might also give them a good ending. We discussed the implications if Jack had survived. The learner assumed the main characters would have lived in poverty, because of Jack's socioeconomic status. She spoke willingly about this assumption, freely expressing her own thoughts, which was beyond my expectation, so I gave her a higher score.

因为我本来的预定就是预想她可能，她会不会也是说一个比较好的结局，因为那个电影他们那个结局就感觉爱情还挺美好的但她后面给我的回答就，就是长时间以来到后面因为没有钱，我觉得她想的可能就比我想的会可能，就是，因为她的回答出乎我的意料...我觉得她其实加了自己的思考在里面，所以我就给了她一个就是可能比较高的分。
(YS6-E)

Figure 5.22

Idio-WTCC ratings for Ella and Yating's ratings of Ella from 12'00 to 12'18 of SCOLT-WTCC 6



However, unlike the tutor, who focused on the content of the answer, Ella seems to have been influenced by linguistic facets of lexico-grammatical knowledge. She mentioned

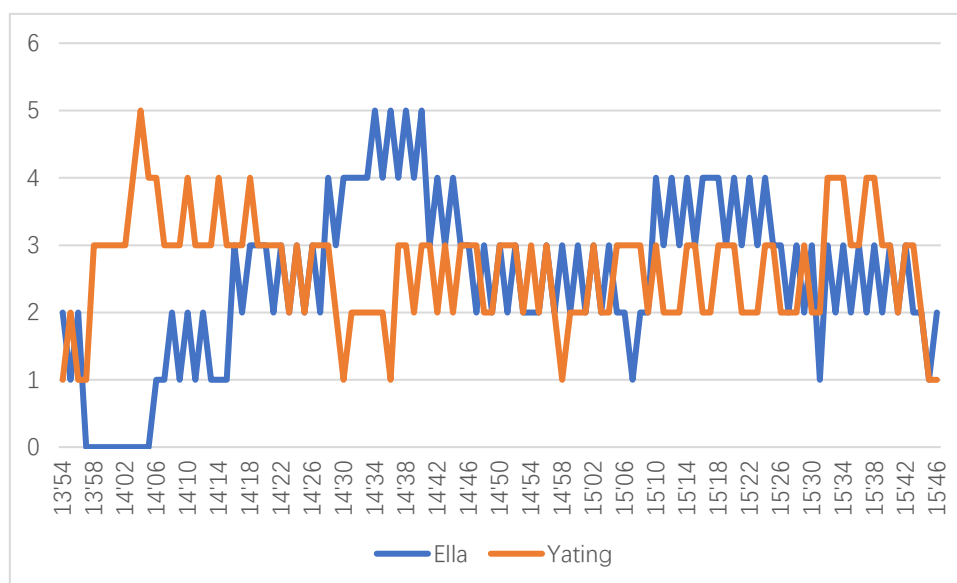
in StRI that when she had difficulty retrieving the phrase, her Idio-WTCC dropped, whereas when she could produce a complex grammatical structure, her Idio-WTCC recovered.

5.5.3 SCOLT-WTCC 10 “Because she shared rich content with me”

In the two similar travel plan tasks in Session 10, both Yating and Ella gave Ella’s Idio-WTCC relatively and continually high ratings. Figure 5.23 shows the Idio-WTCC ratings from the tutor and Ella on the first task of making a three-day plan. In Section 5.4.3, Ella attributed high self-ratings to her familiarity with the city, the ability to incorporate a lot of vocabulary, and the sense of authenticity in the conversation.

Figure 5.23

Idio-WTCC ratings for Ella and Yating’s ratings of Ella from 13’54 to 15’46 in SCOLT-WTCC 10



For the tutor, apart from the factors mentioned by Ella, Yating noticed that Ella had prepared for this task based on the rich content she shared. Therefore, Yating thought that was why she was willing to share at this moment. Meanwhile, Yating also mentioned that Ella did not receive the tutor's knowledge passively. Instead, she was actively communicating with her. Yating also alluded to this authenticity, saying that

she truly knew more about Auckland through this communication.

I think she was not just learning but also communicating. That is, she not only passively received something (from me), but she was also creating to share her knowledge of something with me. Thus I did know more about Auckland from what she told me. And I also knew what I was going to do if I went to New Zealand.

我觉得她不仅仅是在学习，她在被动接受一些东西，她也在自主地给我创造一些知识给我，就是她也在给我交流一些东西，所以其实我从她讲的这些，我也确实了解到奥克兰怎么怎么样。包括我去新西兰我要怎么样。(YS10-E)

5.6 Summary

Generally, Ella showed great variation in her WTCC on different levels and was sensitive to the environment. At micro-levels, many themes emerge from her journals, explaining why her WTCC ratings changed constantly. These include linguistic factors (vocabulary, lexical and grammatical structure, pronunciation), affective factors (anxiety, fear of uncertainty), and situational factors (topic of interest and knowledge capacity, tutor's support, technical challenges). At the Session-based level, there were fewer fluctuations, with five sessions scoring 70. In the final interview (after ES10), Ella reported a sense of development and spoke highly of the tutor's professionalism, "Yating is really good at understanding your meaning, and I think that really helps me because I'm less worried."

No clear overlaps were observed when comparing the interactions of Idio-WTCC ratings collected from the tutor and Ella. This might be because the tutor mainly focused on Ella's communicative content, communication skills and approaches and learning behaviour (searching words, writing notes), unlike Ella who stressed linguistic difficulties she experienced. Understandably, the tutor would not be able to track Ella's affective state and feelings based on her in-session observations and interactions.

In general, Ella's WTCC fluctuated most among the four learners, and she provided me with richly detailed responses as to why. This is the reason that I chose to place Ella's

case first. Now I will proceed to the case of Tony, whose WTCC fluctuated less than Ella's.

Chapter 6 Case Tony

6.1 Background Information

The learner, Tony, is a 32-year-old male who had been learning Chinese by distance for three years at MU while undertaking this project in 2021. He was the new father of a 4-week-old infant when he began the SCOLT-WTC project. He worked as an aeroplane pilot and often dealt with government agencies and staff. Since the beginning of the COVID-19 outbreak in early 2020, he had started to work in Managed Isolation Quarantine facilities (MIQ) in New Zealand. A change of job after the outbreak of COVID-19 had provided him with opportunities to meet a great number of visitors whose first language (L1) was Mandarin Chinese (hereafter Chinese). That motivated him to improve his communicative competence in Chinese further because he realised the necessity of effective communication with those people in such a crisis. In addition, his reasons for studying Chinese included his interest in the Chinese language and culture and his desire to travel to China.

Among the four participants' questionnaire data (see Table 5.1), Tony had the second-highest WTCC-Trait score, second-lowest anxiety score, relatively low perceived competence score and the highest motivation score. He considered himself to be an extroverted person, and that was evident in the video recordings of his SCOLT-WTCC sessions in which I found him often initiating conversation, including always greeting his tutor.

The tutor, Jiyao, had completed teaching Chinese at a Confucius Institute in Thailand when he participated in this project. During his study for his master's degree in Applied Linguistics, he undertook three academic semesters of Chinese language teaching at a Chinese university. He had rich experience in teaching Chinese in traditional classrooms but lacked online teaching experience. Thus, when I asked whether he

would like to participate in the SCOLT-WTCC study, he was pleased to accept the invitation as he expected that this opportunity would help him to improve his online teaching skills.

6.2 Level 1 Trajectory of Tony's WTCC over Ten Sessions

Tony and his tutor spent almost two months conducting ten sessions. Table 6.1 provides his Session-WTCC scores alongside the content in each session obtained from video recordings. Based on these recordings, Session 1 aimed to help the learner and the tutor build rapport, including introducing themselves, their hobbies, their jobs, their hometown and so forth. At the end of the session, the tutor asked Tony to send the topics he wanted to discuss about. Tony did not indicate any potential topics he preferred but expressed a desire to travel to China again.

The tutor decided to host an additional session getting to know more about Tony. Therefore, Session 2 was scheduled for sharing personal stories that might bring the good and bad for them to share and celebrate. With the intent of relational building, however, too much time on the vocabulary used in the tutor's stories had meant no spare time for Tony's storytelling. Failing to gather an understanding of Tony's needs and interests, given Tony wishes to visit China, Jiyao made the decision to discuss topics regarding travelling to Chinese cities. Sessions 3 and 4 focused on Xi'an city, one of the most historical capital cities in north-western China, from which some famous tourist spots were introduced. The following four sessions (Sessions 5 to 8) discussed four attractions in Chengdu and talked about what activities they might do. In the last two sessions, Tony was asked to share his story along with his photos.

Table 6.1

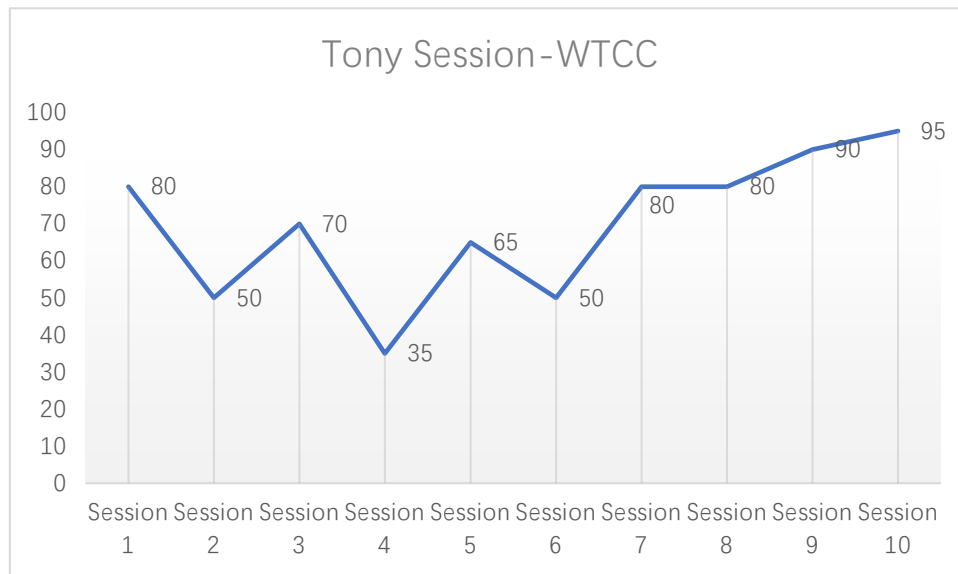
A summary of topics performed in individual sessions along with Tony's Session-WTCC score in each session

SCOLT-WTCC	Topics/contents	Session-WTCC
Session 1	Self-introduction	80
Session 2	Share stories	50
Session 3	Sad story extended to experience during COVID-19. Xi'an-Terra Cotta Warriors	70
Session 4	Xi'an journey: talking about three top tourist spots.	35
Session 5	Chengdu journey: the Jiuyan Bridge and panda enclosure	65
Session 6	Chengdu journey: Kuanzhai Alley and Mount Qingcheng	50
Session 7	Chengdu: Solving the problem occurring in Session 6 and learning the nouns of the locality.	80
Session 8	Chengdu journey: make a three-day trip plan in Chengdu	80
Session 9	Casual chat and talk about a picture provided by Tony	90
Session 10	Casual chat and talking about the pictures provided by Tony	95

When it comes to variations in the levels of Session-WTCC from one session to the next, the analysis of the data obtained from the Session-based WTCC scale showed that they changed considerably over the sessions instead of remaining static. Figure 6.1 shows the ups and downs of his WTCC based on his self-ratings in the Session-based WTCC scale, reaching 95 in Session 10 at the highest point and 35 at the lowest point in Session 3. The levels of Session-WTCC underwent zigzags over the first six sessions and then were on the rise after that. The reasons accounting for the variations will be uncovered in the following sections.

Figure 6.1

Fluctuations of Tony's Session-based WTCC over ten sessions



6.3 Level 2 Change of Grid-WTCC within Each Session

The overall trend of the session-WTCC over ten sessions was displayed in Figure 6.2 which however cannot clearly show the trajectory of Tony's WTCC in each session. It is thus crucial to take a closer look at SCOLT-WTCC sessions to investigate Tony's Grid-WTCC fluctuation during the specific sessions.

Regarding the trajectories within each session, Tony's Grid-WTCC levels varied as shown in Table 6.2 and Figure 6.2. The maximum value (+5) was reported in Session 9, and the lowest level at -4 points was recorded in Session 4. In general, Tony reported notably positive levels of Grid-WTCC during these selected sessions except for Session 4, as he consistently had values over +1. Tony's Grid-WTCC ratings in Sessions 5, 7 and 8 switched relatively moderately from +1 to +3.

However, Tony's WTCC ratings in Session 4 and Session 9 displayed opposite results. Tony's lowest ratings occurred in Session 4 and his ratings stayed negative in general, although there was a surge in the last beep. In contrast, Session 9 triggered his highest level of WTCC (+5) and a constantly high level of WTCC overall. To investigate what

was taking place in these two sessions, the data from the grids were then cross-referenced with video recordings, indicating the activities in progress at the time of the beep, and the narrative accounts recorded in his written journal.

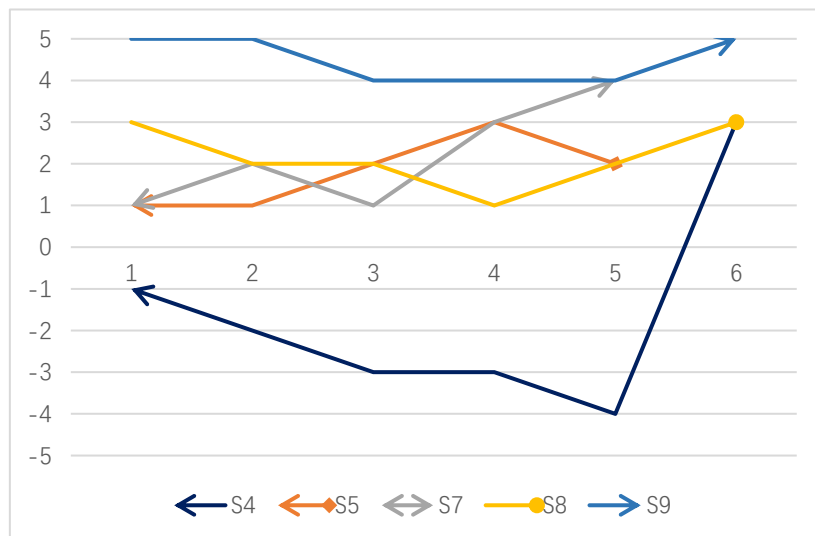
Table 6.2

Tony's WTCC level at consecutive beeps in five sessions and the mean and standard deviation in each session

	B1	B2	B3	B4	B5	B6	Mean (SD)	Session-WTCC
S4	-1	-2	-3	-3	-4	3	-1.5 (2.88)	35
S5	1	1	2	3	2		1.8 (0.84)	65
S7	1	2	1	3	4		2.17 (1.17)	80
S8	3	2	2	1	2	3	2.17 (0.75)	80
S9	5	5	4	4	4	5	4.5 (0.55)	95

Figure 6.2

Tony's Grid-WTCC level at consecutive beeps in the five sessions



6.3.1 SCOLT-WTCC 4: Diminishing WTCC

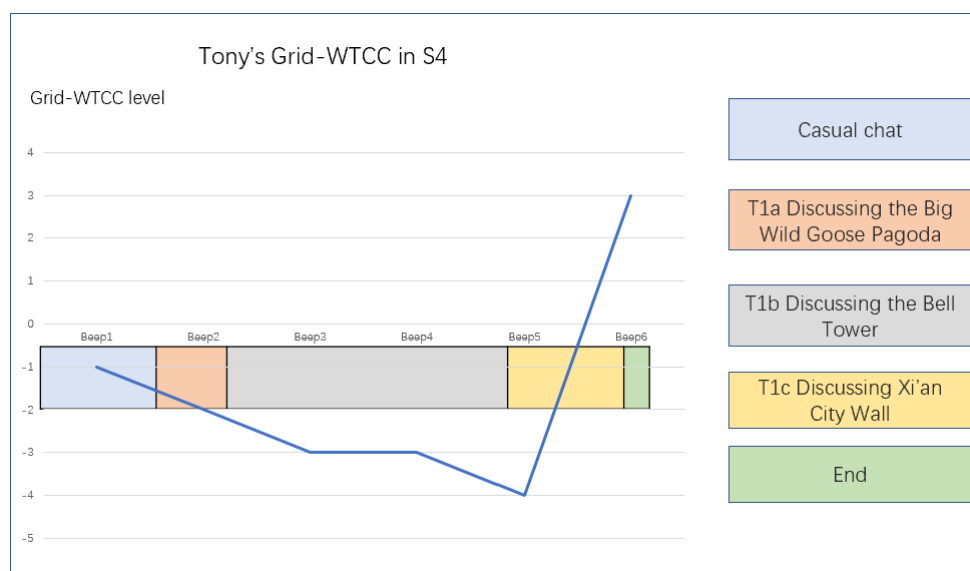
The topic of this session was related to the previous one: the Xi'an visit. The numerical information from Grid-WTCC (see Figure 6.3) demonstrated that Tony's perceived willingness to communicate was not high throughout the whole session and decreased gradually as time went on. Only one surge to +3 happened at the end of this session.

In the class, Tony and his tutor conducted a casual chat in the first eight minutes, during which Beep 1 occurred. Tony rated -1 even though this was inconsistent with his response in the journal written after Session 4, as he indicated in his journal, “I am happy to just chat prior to starting the lesson. I feel like this is a good way to start”. Beep 2 and the following three beeps were heard while they were working on various discussions related to the main topic, the Xi’an visit, which consisted of three famous locations: the Big Wild Goose Pagoda (Beep 2), the Bell Tower (beeps 3 and 4), and Xi’an City Wall (Beep 5). The values across these four beeps showed a gradual drop. Tony did not report any particular moments in his journal, but he attributed this gradual slide in the WTCC grid to the physical environment for learning:

Unfortunately, in this lesson, I could not find any private room so there were some background noises that were distracting me. It was quite public and there was a lot of people in the same room and they could hear me speak Chinese, so I wanted to finish this lesson as soon as possible. (TJ4)

Figure 6.3

Fluctuations in the level of Grid-WTCC in Session 4 together with activities being performed



The last beep sounded when they had finished their session, and the tutor had brought up pictures of himself skydiving. Tony was very excited when he saw the pictures and

his Grid-WTCC at this moment increased from -4 to +3. This surge might have been caused by his interest in an activity with some relation to his job, which was enough to override the discomfort of the external environment, as well as introduce an element of surprise.

6.3.2 SCOLT-WTCC 9: Consistently high Grid-WTCC

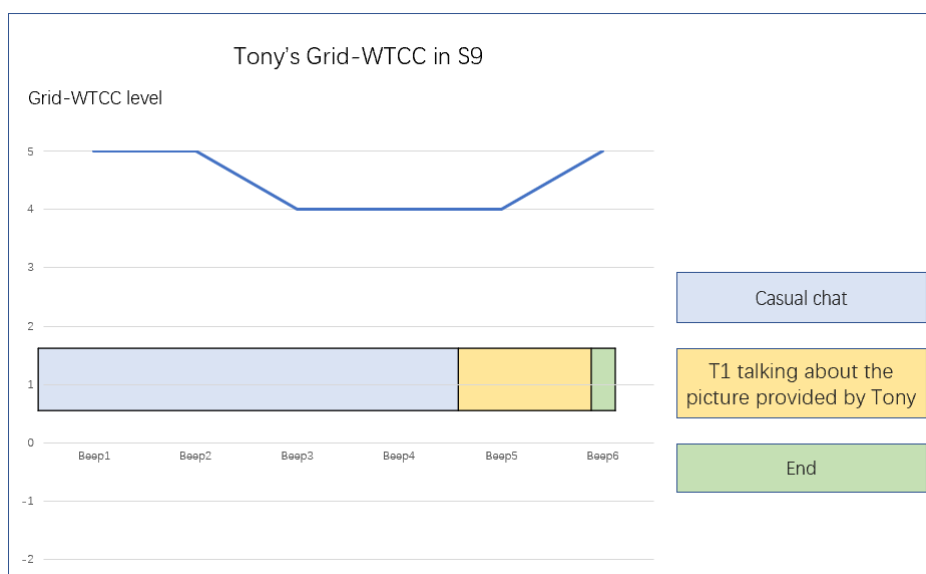
Session 9 did not stick to any particular scheduled plan but was mainly undergoing a casual chat about a video that Jiyao had sent before the session in which a person was playing the piano. Throughout the session, the video sent by Jiyao settled Tony's WTCC into an attractor state, as his ratings remained at around +4 or +5 (see Figure 6.4). The video recording shows that in the first seven minutes, Tony asked some questions about the video and was surprised when he found the person in the video was his tutor. They talked further about the upcoming Christmas in the following five minutes. The first two beeps sounded during this period, and Tony's Grid-WTCC values stayed at the highest level, +5, which showed he was eager to talk. According to Tony's journal, he considered this period as his most WTC moment.

I was most WTC at the start of this lesson. Prior to the lesson JiYao had sent me a video to wish me merry Christmas. Unbeknown to me at the time this was actually JiYao singing a Christmas song on Piano. When I found out it was him playing the piano and singing this really surprised me as I thought he was really talented. I also enjoy playing piano so I had some interest in topic. I asked him where he learnt to play, and he replied that he was self-taught. This shocked me even more and promoted me to ask questions for vocabulary such as “难以想象” (incredible). (TJ9)

At this moment, Tony wanted to express that he was surprised to know his teacher could play the piano and even more shocked when he knew Jiyao was self-taught, which turned into an opportunity to learn the word *incredible/unbelievable*. In the following conversation, it is noticeable that he was digesting this new language item and intentionally kept using it whenever he found it suitable.

Figure 6.4

Fluctuations in the level of Grid-WTCC in Session 9 together with activities being performed



Even though there was a slight decrease in the following three beeps, the high Grid-WTC attractor lingered on + 4 when they further talked about some emergent topics, such as Western food (Beep 3), finding a good restaurant when travelling the world (Beep 4), and the reasons for learning Chinese (Beep 5). Tony explained in his journal why a slight drop in his Grid-WTCC occurred in duration:

Overall this whole exchange of storytelling and surprise over the first 10mins really held a high level of WTC. Throughout the lesson the lowest point of WTC was graded as a 4 as I was coming down from my initially excitement. However, in comparison to previous lessons, I was very engaged and wanted to keep chatting even though we ran out of time. Around 20-25min occasionally I was needing help to communicate my thoughts or help understanding what JiYao was saying, but this didn't bring down my WTC compared to previous lessons.(TJ9)

The last five minutes of this session involved sharing the student's picture and its story. Beep 6 occurred at the end of the session when Tony was saying, "I am so happy with today's lesson", so as aligned his Grid-WTCC returned to +5.

6.3.3 Journal

In the journal entries that he wrote immediately after each selected session, Tony recalled concrete situations in which he felt willing, unwilling, and conflicted about talking, as well as factors that impacted his WTCC in particular sessions.

6.3.3.1 Topic-related characteristics

In terms of the concrete situations in which Tony felt willing to communicate, those that required more authentic communication could improve Tony's WTCC as they were considered to enhance meaningful interaction. That included small talk and shared stories related to personal experiences and real-life situations. Tony wrote that he took the causal chat as a good way to start a session, as he enjoyed and felt relaxed about chatting. In the SCOLT environment, with no predetermined curriculum, a casual chat might also occur at any time during the tutorial. Tony narrated his satisfaction in conversing with his tutor:

A strong drive for me to communicate in this lesson was due to the successful casual conversation I had with JiYao. At the start when we were talking about food and also at the end when we were talking about Coronavirus in Chengdu. These real world conversations mean a lot more, and I can relate more to them rather than just learning a certain subject. There is a high level of satisfaction when we have a successful coherent conversation in Chinese which makes me want to speak more. (TJ8)

When discussing the things that Tony was familiar with, both the learner and the tutor could personalise the discussion, and Tony was able to use his own experience or knowledge to enrich the conversation. Especially when he got active responses from the teachers, he felt he was recognised as an important contributor to the learning sessions, which led him to adopt more active learning strategies:

Although this isn't really a subject I'm interested in, I could reflect on my own experience with Tai Chi in NZ. This prompted me to have a greater WTC as I wanted to share my story with JiYao. (TJ5)

This lesson started with me trying to explain what “leftovers” means. This was an enjoyable experience because I managed to successfully explain what it means using Chinese and got praise for being a good English teacher. This made me feel happy and have a high WTC. (TJ5)

In addition, whenever the topics or content intrigued Tony’s interest, he became more engaged in the conversation. Data in the study suggest that topic interest and prior knowledge of the topics effectively kindled his WTCC. For example, in Session 7, Tony recalled one moment when they were starting to learn words to describe locality:

This sparked my interest as I enjoy looking at maps, I was also interested in how to speak in compass reference about location and how this differed in Chinese vs English. (TJ7)

After Tony successfully explained the difference in using locality words between Chinese and English, he reported that he could contribute to the session. This reflected his sense of obligation to co-construct their session with his tutor, which sparked his intention to talk.

Apart from intrinsic interest in specific topics, topic interest emerged and developed through interaction. For instance, in Session 5, Tony and his tutor spent almost 18 minutes discussing famous tourist spots in Chengdu, displaying a dynamic interplay between interactive conversation, emerging topical interest and gradually increasing Grid-WTCC from +1 to +3 (see Table 6.2). Throughout this relatively long period, Tony actively joined the conversation by asking frequent questions about these spots in Chengdu, as he mentioned in the journal:

I was most willing to communicate around the 20th minute as this class was building up the excitement of travelling to Chengdu (something that I am actually interested in doing now). (TJ5)

6.3.3.2 Linguistics factors

Other situations that led Tony to lower his WTCC involved a deficiency in his lexical resources toward specific topics. Here is an example showing that Tony felt eager to speak about his experience with the Terra Cotta Warriors in Xi'an city but was constrained by the set of vocabulary required. Therefore, he was unable to transform his desire to construct his ideas into actual speech, which might further undermine his willingness to take part in the learning activities. He reflected on this moment as both unwilling and ambiguous items in the journal.

[Ambivalent] when we talked about “兵马俑 (the Terra Cotta Warriors)”, I wanted to talk a lot more about my experience but felt very restricted as I didn't know the vocabulary for that topic. (TJ3)

[UnWTCC] I was most unwilling when we were talking about the “兵马俑 (the Terra Cotta Warriors)” as I felt I didn't have the vocabulary to talk about my experience there. Even though I enjoyed the topic, I felt restricted due lack of knowledge. (TJ3)

The data revealed the dynamics of Tony's WTCC in this situation. He desired to share his experience related to the Terra Cotta Warriors; however, due to his limited vocabulary, his state shifted from conflicted feelings about sharing to feeling much less willing to share. In fact, talking about the Terra Cotta Warriors requires professional knowledge and vocabulary, which could have been challenging even for native Chinese speakers. In another situation, Tony also reported under both UnWTCC and ambivalent feelings headings that L2 communication behaviours in certain situations might not effectively represent his genuine investment and meaningful expression. In Session 8, Tony was asked to fill in a table for a three-day trip to Chengdu based on the tutor's summary of famous spots in Chengdu and its associated activities. Even though Tony kept answering the tutor's questions and actively asked the tutor for clarification, he explained that his WTCC was impeded due to difficulty in comprehending those questions and making frequent mistakes himself:

[UnWTCC] Around 20min into the lesson I was making a lot of mistakes and struggling to keep up with JiYao on making a schedule. As I was getting tired my WTC was getting low. (TJ8)

[Ambivalent] Following on from what I said in question 2 [UnWTCC], I was less WTC around 20 mins but I had to keep talking to fill in the schedule. As I was consistently being asked questions, I had to answer them. (TJ8)

The statements above give little sense that Tony was willing to perform the task; as Tony interpreted the situation, he *had* to respond to the tutor's ongoing questions because the tutor was expecting the answers from him. In this case, it can be said that Tony engaged in communication by answering the questions not because he desired to do so but rather due to a sense of obligation to say something. Even though consistently making mistakes in completing the task made him feel tired, he felt he had to complete the task required by his tutor.

6.3.3.3 Tutor's support

On the other hand, another situational factor that contributed to Tony's WTCC was the tutor's support. The support he mentioned was the tutor's ability to apply different tools to mediate his WTCC. For example, Tony mentioned in the journal and reiterated in the interview the effect of pictures in helping him to understand some of the stories in Session 5. In Session 7, Tony shared one period when the tutor had prepared props (ink, paper, and a bottle) to navigate a question Tony raised in Session 6 (see Figure 6.5)

Although there are limitations on this as it's a virtual lesson, I believe this was a really good way to spark interest for the student and set a potentially high WTC from the beginning. (TJ7)

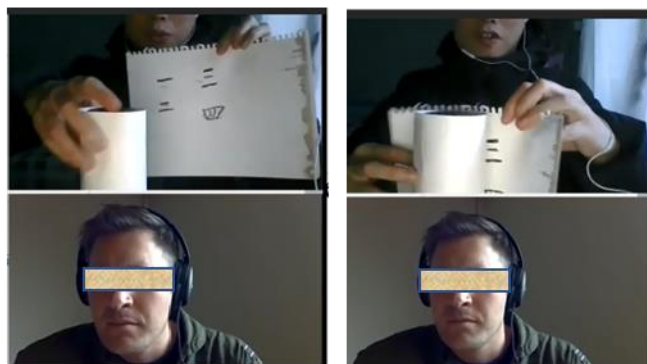
As shown in Figure 6.5, Tony engaged intently in watching how the tutor simulated the process of making ancient Chinese characters by using these props. During the extended 18-minute explanation, Tony was very impressed with the tutor's example and practical demonstration about why the Chinese language is sometimes written from right to left and from the back to the front page (especially on heritage architectures and collections).

This vivid explanation, mediated by the props, set him at a high WTCC at the beginning of the session. Meanwhile, Tony was impressed by the tutor's effort in accommodating his needs, even though that might be from previous sessions, as he reflected that

Furthermore, when the teacher gave a great explanation of a question I had from the previous lesson, I was more engaged and felt like the teacher really did care about my willingness to learn and therefore I had a higher WTC.(TJ7)

Figure 6.5

Props used by the tutor to display how traditional Chinese characters were written



Another impact of the tutor on Tony's WTCC was his openness to being interrupted during the tutorial. Tony felt he was being listened to, consequently, he was more willing to speak up.

At no point did I feel uncomfortable interrupting the teacher because I didn't understand something he said. I feel he is very open to questioning because he always is happy to stop at what he is saying and listen to me. (TJ3)

However, this was no guarantee that Tony would speak up if he could not comprehend Jiyao's explanation. Sometimes, Tony did not want to interrupt his tutor and delay the process (TJ5), or he chose to stay silent to concentrate and listen to the tutor's story when he struggled to figure out what his tutor was talking about (TJ4).

Generally speaking, Tony's Grid-WTCC at Level 2 showed a great deal of variation fluctuating between -4 and +5. Situational factors were the most frequently reported

impacting on Tony's WTCC in his journal. The journal presented a generally upbeat tone in relation to meaningful interaction and remaining optimistic, albeit mixed with concern about a considerable lack of competence sometimes, such as constantly making mistakes and lacking vocabulary. In a one-to-one environment, the obligation to engage in the conversation sometimes overwhelmed Tony with ambivalent feelings, as he struggled to keep up with the patterns in the session while continually being asked questions. Furthermore, constantly making mistakes made him feel frustrated, further impeding his WTCC.

6.4 Level 3 Dynamics of Idio-WTCC in Single interactions

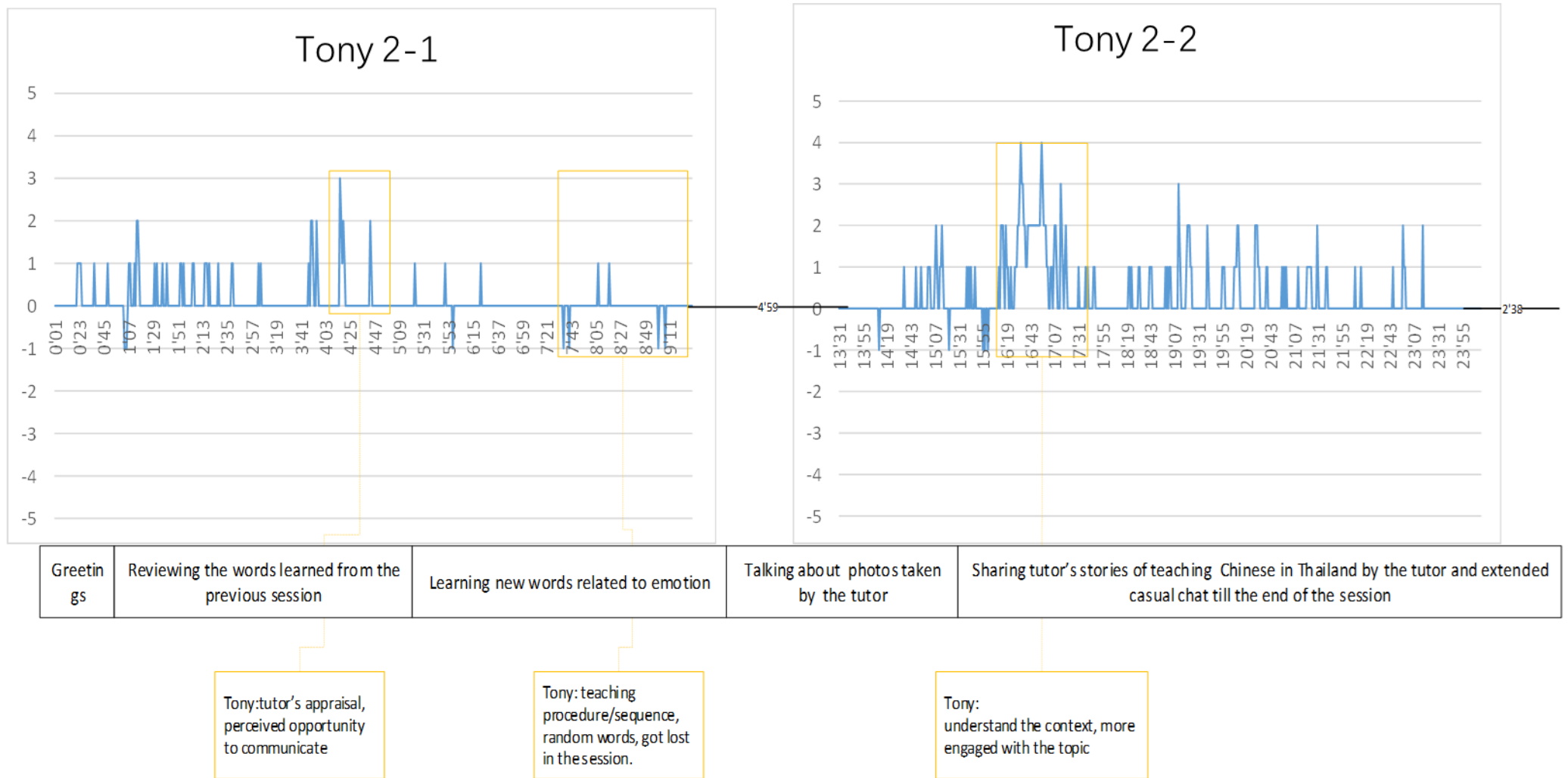
This section will elaborate on the dynamic changes in Tony's WTCC as measured by the idiodynamic method second by second. Three sessions were selected for conducting the idiodynamic method: Sessions 2, 6, and 10. The following will highlight specific communication episodes of interest in detail by drawing on data from the idiodynamic output graphs, interviews, and video recordings of their conversation.

6.4.1 SCOLT-WTCC 2 “Let him try to actually teach something”

Session 2 was to share stories about sadness and happiness. As shown in Figure 6.6, this session contained the following parts: greetings, reviewing the words from the previous session, learning new words, talking about the pictures taken by the tutor, sharing a happy story, and an extended casual chat till the end of the session. Tony's Idio-WTCC ratings remained relatively stable, with the most ranging from +2 to -1 and a few times reaching +3 and +4.

Figure 6.6

Case Tony idiodynamic ratings in SCOLT-WTCC 2

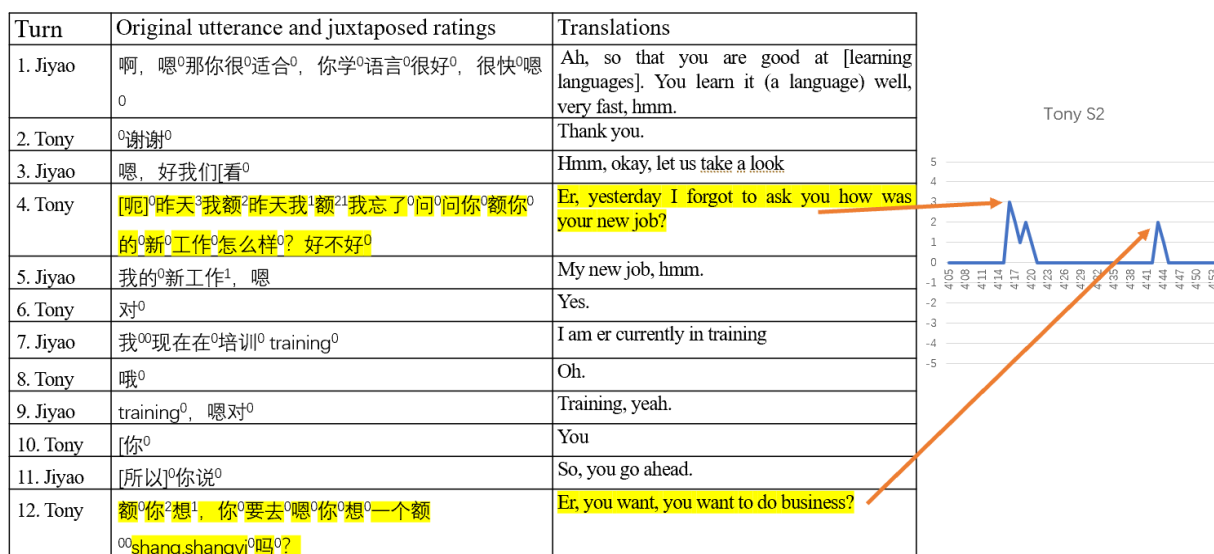


The first major rise to +3 occurred at 4'15 when he wanted to have a casual chat after a three-minute review of words learned in the previous session. Figure 6.7 shows two peaks in Tony's Idio-WTCC. Both correspond to moments where Tony took the lead in asking questions (lines 4 and 12) which can be seen as initiating a new topic and a change of turn. In TS2, Tony explained why he started asking questions about the tutor, instead of following the tutor's plan:

Basically, he just gave me a bit of kind of appraisal and made me feel good. Oh, okay, I was like, let's start to chat now... Initially I was quite quiet in this lesson compared to the last lesson, because I just thought let him try to actually teach something, last time I ended up just chatting for the sake of chatting. But in this one, then I just thought that was an opening opportunity to start talking. (TS2)

Figure 6.7

Extract of Tony's output graph and the conversation (Time 4'05-4'54)



In his accounts, it is not hard to notice the strong intention underlying his actions. This indicates that he was aware of his language ability in terms of responses provided to questions which could influence the tutor's decision making of facilitating certain types of learning activities. Initially, his Idio-WTCC was low as he was not keen on reviewing the words from the last session and wanted to let the tutor teach. However, when Jiyao wrapped up the revision by praising his performance and was about to move to the next

teaching stage, Tony interrupted the flow, changing the trajectory of the communication. His account shows that he employed his agency to open up a new conversation to change his previous quiet state.

When asked about the reason for the rise to +4 in his Idio-WTCC, Tony initially explained in TS2 that his Idio-WTCC ratings were relatively low from 5'30. Since they were going through the words related to different emotions, he was waiting to know how this activity would move forward, but he found it ended up just being introduced to more words on the topic. His Idio-WTCC dropped to -1 around 9'0, because, in his opinion, those words were random and not meaningful to him, particularly when he was not clearly guided with an approach and an achievement goal to suggest their relevance; eventually though he found they did have a point. Thus, he was not engaged at that moment. He even made further suggestions about the procedure of this session:

If he opened with saying, we are gonna tell each other's stories about happiness and sadness. Then I will like, oh, okay so I know what we are doing now. And then he talked about the vocabulary, I think I would have been more engaged. (TS2)

Tony's reflective account above indicates his sense of uncertainty about the task aims which caused him to question the relevance of the learning and the need to engage in these activities. Likewise, this sense of uncertainty also influenced his later Idio-WTCC in the activity when talking about pictures as the tutor had still not fully explained the aims of the session:

At that point, just the topic, I wasn't too sure where the lesson was going... I was a bit unsure as to what was required of me at that point, that's why I was like, oh maybe I'll just let him explain it a bit more. (TS2)

This statement suggested that the lack of clarity in the teaching sequence influenced Tony's Idio-WTCC. Even though the tutor was trying to get his message across, Tony did not know what he should do until his tutor started to share a story with him, at which point his Idio-WTCC increased to +4, around 16'33 (see Figure 6.8). The video analysis

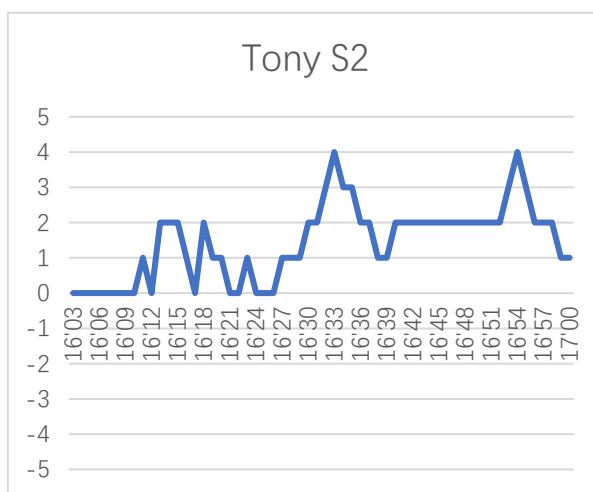
showed that Tony started participating in the conversation when Jiyao shared his story related to the experience of teaching Chinese in Thailand based on the pictures he had taken. In TS2, Tony said:

As soon as I knew the relevance of it and he started telling me the story, so later on it, it made a hell of a lot more sense and I was then much more engaged and wanted to listen to his story and talk about it. (TS2)

The tutor’s clarifying pedagogical and communicative intent increased his engagement and further increased his Idio-WTCC. In this excerpt, Tony finally figured out the relevance of these activities after approximately 10 minutes of guessing about the tutor’s intention. This extract also highlights how the previous state of WTCC can impact the current moment. Tony’s jump in WTCC was exaggerated in contrast to the low state he had been in, because he had been struggling to feel engaged and recognised that there was a point of engagement, a topic he could connect with, which made his WTCC jump further in contrast to the doldrums period.

Figure 6.8

Extract of Tony’s output graph (Time 16’03-16’59)



Understanding the context or situation had significant effects on Tony’s Idio-WTCC score in this session, particularly understanding the tutor’s teaching intention in relation to the learning goal. In addition, Tony’s preference for casual chats also played a role

in his Idio-WTCC ratings.

6.4.2 SCOLT-WTCC 6 “I should’ve googled it”

Session 6, followed the topic of a journey to Chengdu in Session 5, continued to discuss two tourist attractions. As shown in Figure 6.9, this session covered the following activities: brief greetings, a review of places to visit from the previous session, and talking about two locations: Kuanzhai Alley and Mount Qingcheng. Tony’s Idio-WTCC generally remained relatively stable from -1 to +1 as in Session 2, but there were two spikes to +5 in the middle of the session.

Right at the beginning of this session, Tony’s Idio-WTCC increased to +2 due to his positive attitude toward casual chat. He reflected in TS6, “I usually feel good at the start of the lesson, I always have high WTC at the start, and it’s purely because of that casual chat that we have generally in every single class”. Moving to review words, his Idio-WTCC kept positive in the beginning, especially when a map was shown, which helped Tony understand the tutor’s question and keep the conversation flowing. Tony’s Idio-WTCC increased to +3 as a result. He attributed this increase to the map (see Figure 6.10), as it related to his work as a pilot and also spiked his interest in the conversation, further increasing his desire to talk.

As soon as I see a map, it peaked up my own personal interest ... And when we were talking about this subject and that I was also interested in it, I was already very engaged and wanted to speak and talk about it. (TS6)

Figure 6.9
Case Tony idiodynamic ratings in SCOLT-WTCC 6

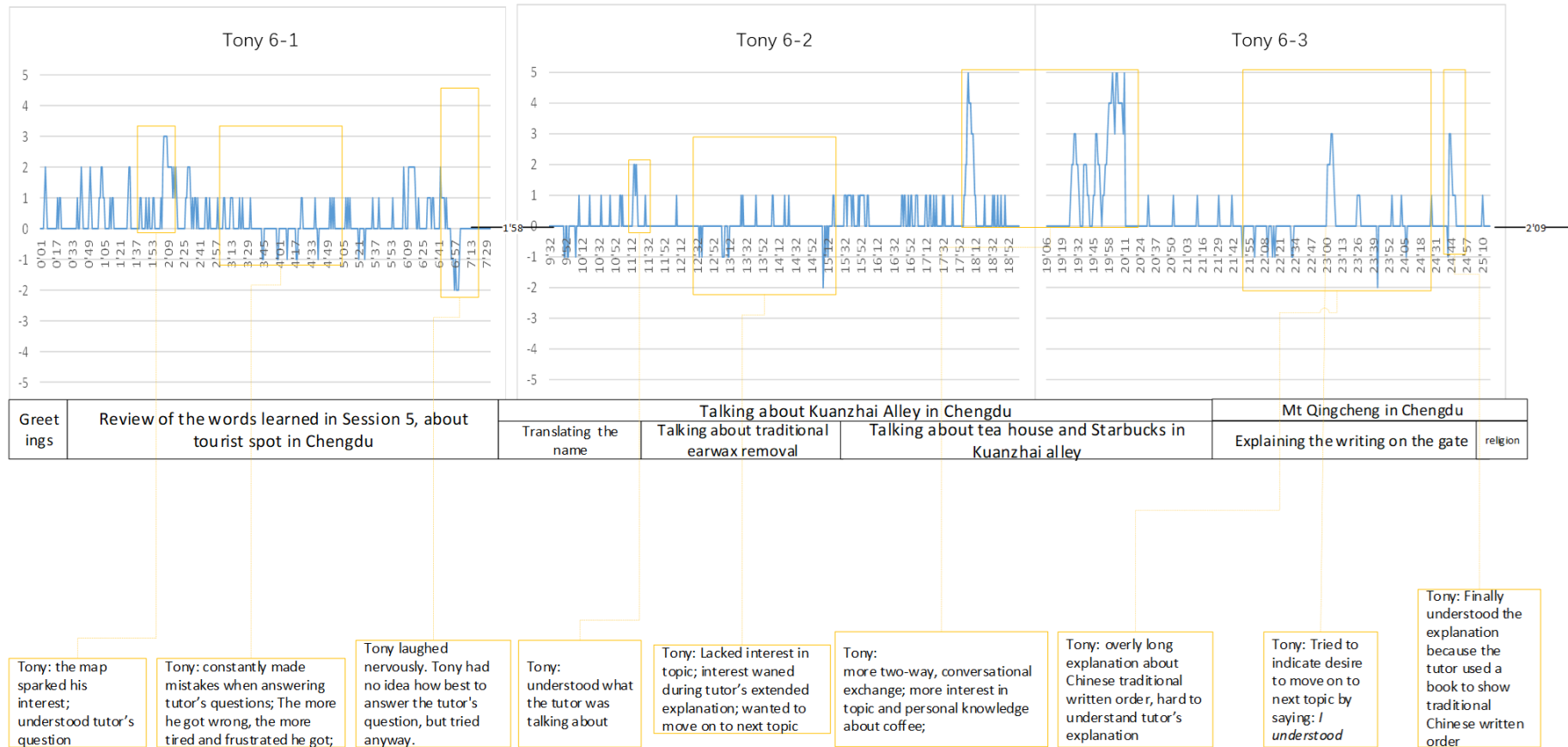


Figure 6.10

Map used to help to understand student and tutor's locations



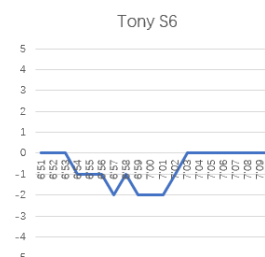
Towards the end of the reviewing activity, Tony's Idio-WTCC dropped to -2 because he did not know how to answer the tutor's question about why pandas were cute (Line 3) (Figure 6.11). However, one-to-one turn-taking obligations required Tony to fulfil his role. Thus, he had to "make it up" in his words, even though he felt nervous:

at that point, you can hear me laugh there. It's more like a nervous laugh, like oh man, I don't know how to say this. But I am gonna try to make it up anyway...I guess a little bit low interest subject on top of that and I didn't know how to answer the questions. (TS6)

Figure 6.11

Extract of Tony's conversation and output graph (Time 6'50-7'10)

Turn	Original utterance and juxtaposed ratings	Translations
1. Jiyao	⁰ 熊猫 ⁰ 可爱吗 ⁰ ?	Is the panda adorable?
2. Tony	对 ⁻¹ , 他们 ⁻¹ 很可爱 ⁻¹ 。	Yes, they are adorable.
3. Jiyao	⁻² 为什么 ⁻¹ ?	Why?
4. Tony	⁻² 额 ⁻² , 哈哈 ⁻¹ , 因为 ⁰ 他们 ⁰ 有 ⁰ 黑的 ⁰⁰ 眼睛 ⁰ 。	Er, haha, because they have black eyes
5. Jiyao	嗯, 对 ⁰ 。	Um, yes.



During the discussion of Kuanzhai Alley, one of the famous tourist locations in Chengdu, Tony's WTCC dropped as Jiyao gave a three-and-a-half-minute attempt to explain the earwax removal tradition in the Alley. Tony's ratings were around zero during this phase, sporadically fluctuating from -1 to +1 (see Figure 6.12). He was

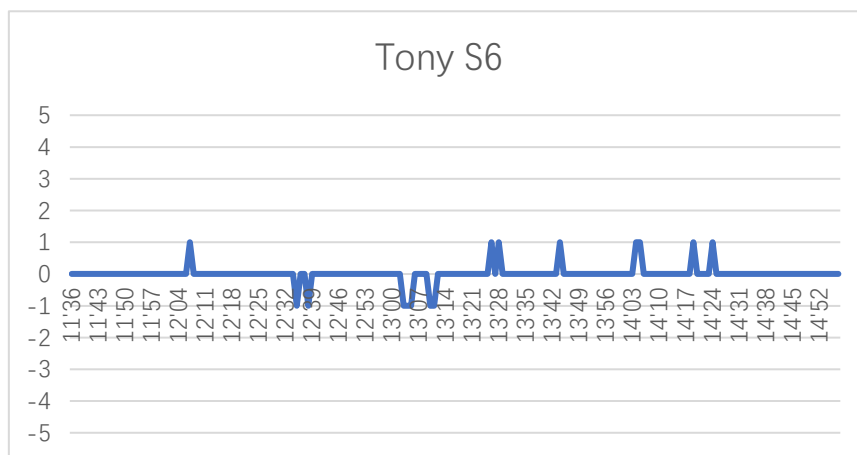
confused by the explanation, not understanding what was being described, confusing it with ear-piercing, and not knowing why Jiyao felt the need to talk about it so extensively, “I understood what he was saying, but I was just kind of confused this... why you are telling me this” (TS6). In fact, it is not clear at all that Tony did understand, as he continued to think the explanation was of ear piercing.

So, we’ve just been talking about ear piercing and um I don’t really care about that at all. So again, I was like I hope we can talk something else soon. (TS6)

This comment revealed that when Tony reported a rapid decline in WTCC at the onset of the task, he abandoned it, responding to his tutor briefly with “uh” and “umm” to indicate he was with him politely but in fact, having difficulty comprehending the message as shown in his reflection. The threshold effect (the butterfly effect, see Section 2.3.1) caused Tony to give up communication due to unfavourable initial conditions. This threshold effect lasted till the new topic about Starbucks was presented, and his Idio-WTCC recovered. This reset high Idio-WTCC altered the initial conditions for the next communication event, which also reflected the non-linear nature of the learner’s Idio-WTCC.

Figure 6.12

Extract of Tony’s output graph (Time 11’36-14’57)

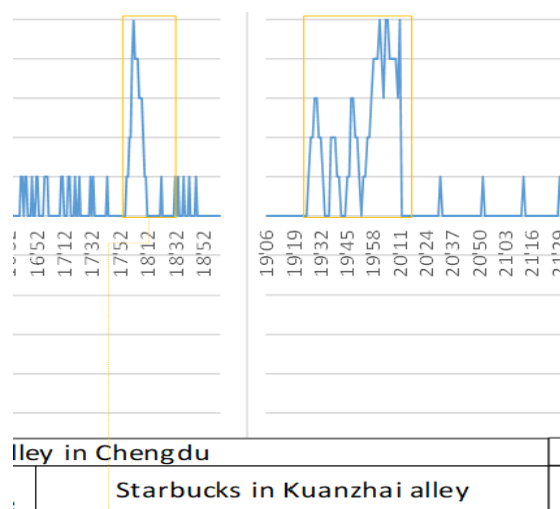


During the discussion about Starbucks and the extension to coffee in general after

approximately 16'14, Tony's Idio-WTCC ratings increased slightly for two minutes, fluctuating most of the time slightly above zero (see Figure 6.13). At 18'03, Tony's Idio-WTCC surged to +5. However, due to the software constraint, the video on this topic was cut into different parts, so the ratings in this part were separate. I could not confidently say if there was a constant increase in his Idio-WTCC ratings, but it's obvious that Tony's Idio-WTCC ratings displayed two peaks in this part, which means he was highly willing to talk.

Figure 6.13

Extract of Tony's output graph (Time 16'22-21'32)



The first peak occurred when Tony talked about café culture in New Zealand, and the second when he talked about his coffee-drinking habits. He explained that generally, his Idio-WTCC increased as soon as the conversation became an actual exchange of experience or personally relevant topics, and he enjoyed it when the topics were related to him personally:

“You were always excited to everyone who wants to talk about themselves”. Um so it's a very easy subject to bring up and actually chat about it. (TS6)

I am sharing the personal story almost I guess this is the, you know, I drink too much coffee, I don't sleep well, that's me just telling my story basically, um so, and I was more than happy to chat about it. (TS6)

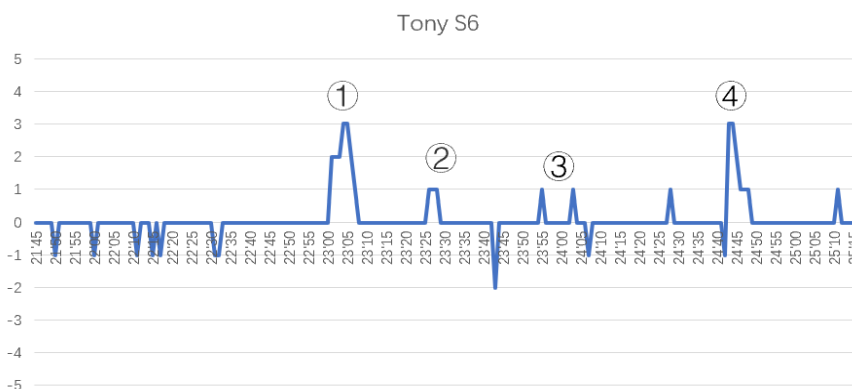
Tony described their communication shifting from one-way passive learning and tutor-to-learner interaction to two-way communication, exchanging personal experience, which produced positive feelings and increased his Idio-WTCC. Although the previous discussion of activities in Kuanzhai Alley had been based on pictures, usually a plus for Tony, because they had little personal relevance and any idea why they got bogged down in the ear-waxing episode, he did not respond strongly to their communicative potential:

I think um the fact that the lesson moved from... learning just nouns, grammar, or whatever... into the general conversation, so I was quite happy to talk at that point. (TS6)

Another overlong explanation occurred during the discussion of Mount Qingcheng when Tony asked why its name was written at the gate from right to left, differing from the Modern Chinese writing style. The tutor did not expect this question and spent 3 minutes and 46 seconds explaining it using three examples. Nevertheless, during the explanation, his WTCC jumped to +3 four times (as shown in ①②③④ in Figure 6.14). As he explained in TS6, these peaks coincided with the times that he asserted that he understood (though he did not, until the final one) and reflected his hope that they would bring the explanation to a close so the conversation would move on in new directions. A consistent rise to positive territory did not occur until they moved on and talk about the Starbucks outlet in the Alley.

Figure 6.14

Extract of Tony's output graph (Time 21'45-25'17)



Overall, topic interest and meaningful exchange were often cited as factors in promoting his WTCC. However, the tutor's overlong explanation negatively impacted it.

6.4.3 SCOLT-WTCC 10 “I could talk for days about it”

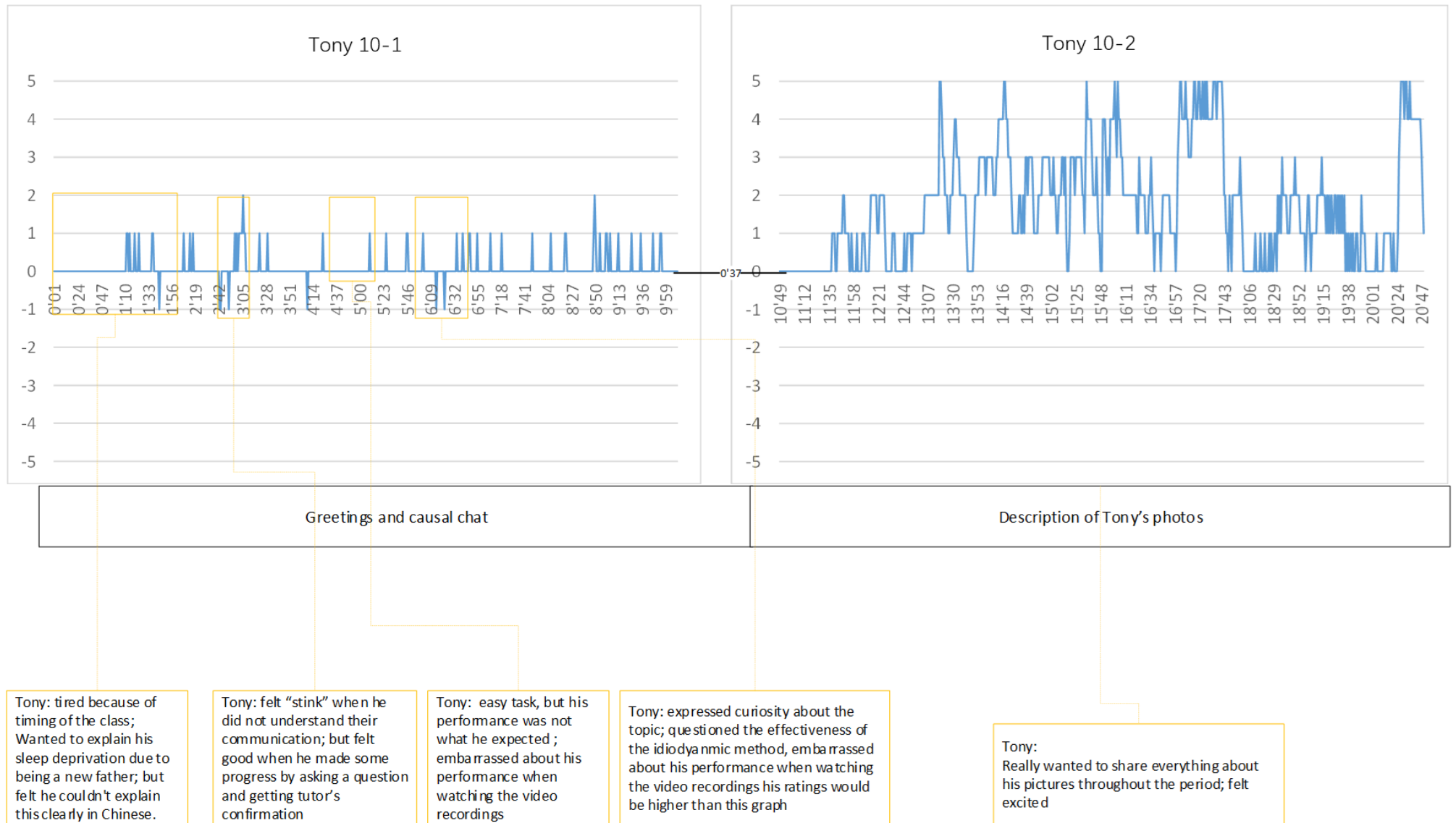
The task of Session 10 was to describe a picture. Tony had sent his own three photos to Jiyao before Session 9 where they discussed one picture and continued to talk about the other two photos. Unfortunately, the internet cut out temporarily, so they had to reconnect to ZOOM when they started to talk about the last photo. So in this session, the video recording only captured the first 21 minutes. This part of the session was generally made up of two activities: a casual talk and describing photos. As shown in Figure 6.15, Tony's Idio-WTCC remained relatively stable in the first 11 minutes, but his ratings increased to +5 many times for the rest of the session. When discussing his general WTCC and feelings during this session, he said he was satisfied with the conversation. Interestingly, he further described his evolving WTCC throughout the session, from not very willing to talk initially to highly willing to communicate shortly after.

I don't know why, I was still struggling, I just walked out of a very busy meeting and work and my mind was kind of elsewhere, so I was making quite a few mistakes initially to start off with of this lesson. But then later on and you could've seen the video I became much more involved, and I am more talkative, especially when he started to bring out all the pictures that I sent him and so on so forth. (TS10)

His conception also reflected how initial unfavourable conditions before entering the session influenced his Idio-WTCC. Compared to his general positive attitude toward a casual chat, Tony was less willing to talk at the beginning of this session because he had a heavy workload that week, and the timing of the session occurred right after his lunch. Therefore, he felt exhausted when the class started.

Figure 6.15

Case Tony idiodynamic ratings in SCOLT-WTCC 10



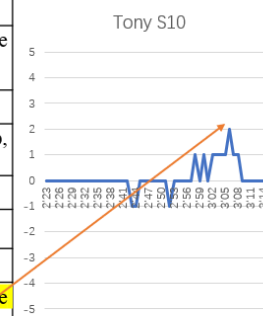
At some point, they started to discuss Tony’s exposed real-life issue of his sleep deprivation due to being a new father. When Tony tried to describe his baby’s unsettled sleeping condition, Jiyao used the word 断断续续 (on and off; inconsistent) to refer to that. However, Jiyao’s explanation of this word was incomprehensible to Tony, which made Tony feel frustrated, so he kept silent and his ratings mostly remained zero or even went down to -1 (see lines 1 to 5 in Figure 6.16). Then in Line 6, Tony turned to one specific vocabulary item in the tutor’s explanation and proposed to use 起床 (to get up) rather than 醒 (to wake up) in this case. Jiyao indicated his understanding of Tony’s intention and explained the difference between 起床 (to get up) and 醒 (to wake up). At that point, Tony’s Idio-WTCC increased. In TS10, Tony attributed this increase to his self-affirmation of his attempt, as he said:

that the point I could not understand [Jiyao’s explanation] and I was feeling down and then suddenly when I asked the question 我觉得是起床 [I think it is “getting up”] and he said yes but he said that different, it was like at least what I thought was not wrong and it made me feel good, so it made me want to like talk again because I have got something right. (TS10)

Figure 6.16

Extract of Tony’s output graph and the conversation (Time 2’23-3’15)

Turn	Original utterance and juxtaposed ratings	Translations
1.Jiyao	因为小 ⁰ 孩 ⁰ ，睡 ⁰ 觉 ⁰ 的 ⁰ 时候 ⁰	Because kids, when [they] sleep)
2.Tony	⁰⁰⁰ 呃 ⁰ ，对 ⁰ 不 ⁰ 起 ⁰	Er, sorry.
3.Jiyao	哦 ⁰ 因为 ⁰ 很 ⁰ 多 ⁰ 小 ⁰ 孩 ⁰ ，很 ⁰ 多 ⁰ 小 ⁰ 孩 ⁰ ，呃 ⁰ 睡 ⁰ 觉 ⁰ 中 ⁰ 间 ⁰ 都 ⁰ 要 ⁰ 醒 ⁰ 要 ⁰ 醒 ⁰ 就 ⁰ 是 ⁰ -1wake up ¹	Oh, because many kids, many kids, er, in the middle of sleep wake up, that is wake up
4.Tony	哦 ⁰	Oh
5.Jiyao	睡 ⁰ 一 ⁰ 会 ⁰ 儿 ⁰ ，然 ⁰ 后 ⁰ 要 ⁰ wake up ⁰ 要 ⁰ 醒 ⁰ 对 ⁰ 嗯	Sleep for a while, and then wake up, wake up, correct, hmm
6.Tony	⁰ 要 ⁰ 醒 ⁰ 我 ⁰ 觉 ⁰ 得 ⁰ 是 ⁰ 起 ⁰ 床 ⁰ 1	Wake up, I think it is “getting up”.
7.Jiyao	对 ⁰ 起 ⁰ 床 ⁰ ，对 ⁰	Correct, get up, correct
8.Tony	哦 ⁰	Oh.
9.Jiyao	是 ⁰ 哦 ⁰ 额 ⁰ 醒 ⁰ 和 ⁰ 起 ⁰ 床 ⁰ 有 ⁰ 一 ⁰ 点 ⁰ 不 ⁰ 一 ⁰ 样 ⁰ a little ¹ different.醒 ⁰ 是 ⁰ 意 ⁰ 思 ⁰ 是 ⁰ 你 ⁰ 1，你 ⁰ 的 ⁰ 眼 ⁰ 睛 ⁰ 211睁 ⁰ 开 ⁰ 了 ⁰ 。但 ⁰ 是 ⁰ 你 ⁰ 还 ⁰ 躺 ⁰ 在 ⁰ ，你 ⁰ 还 ⁰ lie on the bed	Yeah, oh, waking up and getting up are a little different, waking up means your eyes open, but you still lie on the bed



Tony’s comment reflected those validations both from himself and the tutor were essential to his Idio-WTCC. His attempt and his self-validations of this attempt “suddenly changed the way that I was listening and approaching what he was trying to

explain,” as he said in TS10, indicating his intuitive awareness of the situated, dynamic nature of WTCC.

As the conversation went on, they started asking each other about the weather since 4’32, and Tony appeared to be proactively engaging in the conversation by responding to Jiyao’s question and asking his own questions. He seemed to be enjoying the process. However, this strong intention to talk did not appear on his Idio-WTCC ratings. As shown in Figure 6.17, Tony asked if his tutor had a heater in the room. Although he did not know how to say “heater” in Chinese, he actively guessed the word by combining the word “electricity” and “fire” (Line 1). In Line 4, the tutor understood Tony’s question and lifted his heater up to be shown on camera at that point. They both laughed happily and loudly (see Figure 6.18). However, Tony’s ratings did not reflect a discernible increase in the graph and remained mostly at zero, only sporadically fluctuating to +1 or -1. In TS10, Tony said that he was curious about this topic, and their enjoyable communication atmosphere made him more willing to talk, so his Idio-WTCC ratings should have been higher than shown in the graph. However, Tony recounted what he described as the embarrassing moment he watched his video recording of that period, so he rated how embarrassing watching himself communicate rather than his WTCC. He said:

That’s [Idio-WTCC ratings] incorrect I would say it was more willing like +2 or +3 because... I was wondering he always wears jacket, “is he freezing or has he got a heater?” but then when he picked up the heater and then I cracked up, “this is my fire and stuff”. It was actually a good point for me. But I think as a spectator watching it and I was like “oh god my Chinese is so bad”, so down, down. (TS10)

As shown in the comment, he admitted he was a spectator rating his performance rather than an experiencer reflecting on or recounting Idio-WTCC at that moment of the session. He even further compared the difference between the idiodynamic method and WTCC grid and felt his ratings using the WTCC grid were more accurate. His comment, based on his personal account and experience in using both methods, can be useful to

discuss both methods in understanding the dynamics of a learner's WTCC.

Figure 6.17

Extract of Tony's output graph and the conversation (Time 5'49-6'44)

Turn	Original utterance and juxtaposed ratings	Translations
1. Tony	你有一个，哦，我我知道，你没有一个火在你的房子，因为你有一个，一个很大的哦好	(you have a, oh, I, I know, you don't have fire [heater] in your house, because you have hmmm, a very big. Oh, okay)
2.	(both are laughing) ⁰⁰⁰	
3. Jiyao	我的火	(my fire)
4. Tony	非常火，额 非常好的火，额，用中文是额电火？	very fire, er, very good fire, eh, in Chinese, is "electric fire"?
5. Jiyao	额，不是，就是这个，我刚刚 (gesture) 这个东西，this is in Chinese we call it 我们叫它，等一下哈 [tutor typing words]，我们叫它小太阳	(eh, no, that thing I just (gesture of lifting), this thing, this is in Chinese we call it, we call it, wait a moment [typing], we call it "small sun (heater)")
6. Tony	小太阳	(small sun)

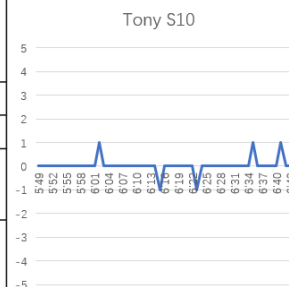
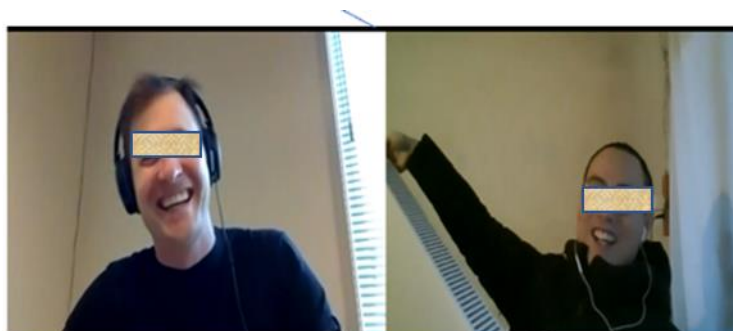


Figure 6.18

A screenshot of both laughing when Jiyao lifted his heater



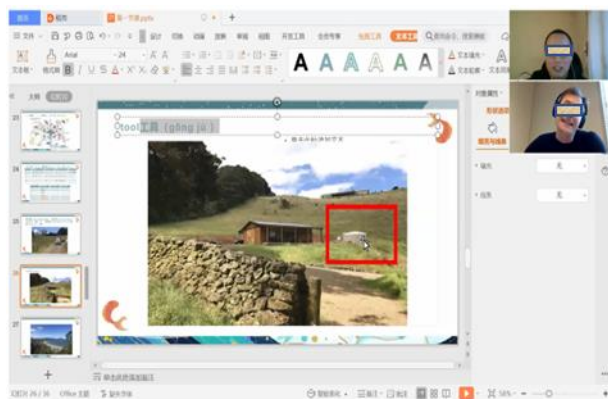
In the task of describing photos, Jiyao asked Tony questions based on the pictures he had sent. There were two photos, but due to the internet malfunction, there were no video recordings of talk about the second picture, and, therefore, no rating data. Nevertheless, Tony recalled his feelings and commented on his perceptions in TS10, which will be reported later.

The first picture (see Figure 6.19) is a house on a farm with a huge white water tank next to the house. Throughout the first photo describing task, Tony did most of the

talking. As shown in Figure 6.15, his Idio-WTCC ratings were very high, especially compared to his previous relatively stable and low ratings as he was undertaking other tasks or interactions. Apparently, the most relevant factor was his positive emotions.

Figure 6.19

Screenshot of the photo description activity



Tony, in TS10, recalled two stand-out moments when he felt extremely willing to talk. The first one occurred when he was sharing what was inside the building shown in the picture. Figure 6.20 presents the fluctuations of Tony's Idio-WTCC ratings during this period, and there were two points up to +5. The first surge to +5 at 13'18 happened when the tutor typed 工具 (tool) on the screen. At that moment, Tony explained in TS10 that he wanted to talk about a wine bar that was in the building, but he waited for his turn patiently and excitedly:

Even though I am not talking right now, I really wanted to tell him something else...but I was kind of waiting so my willingness to communicate was high, but I was being kind of patient just in case he wanted to talk about something else. (TS10)

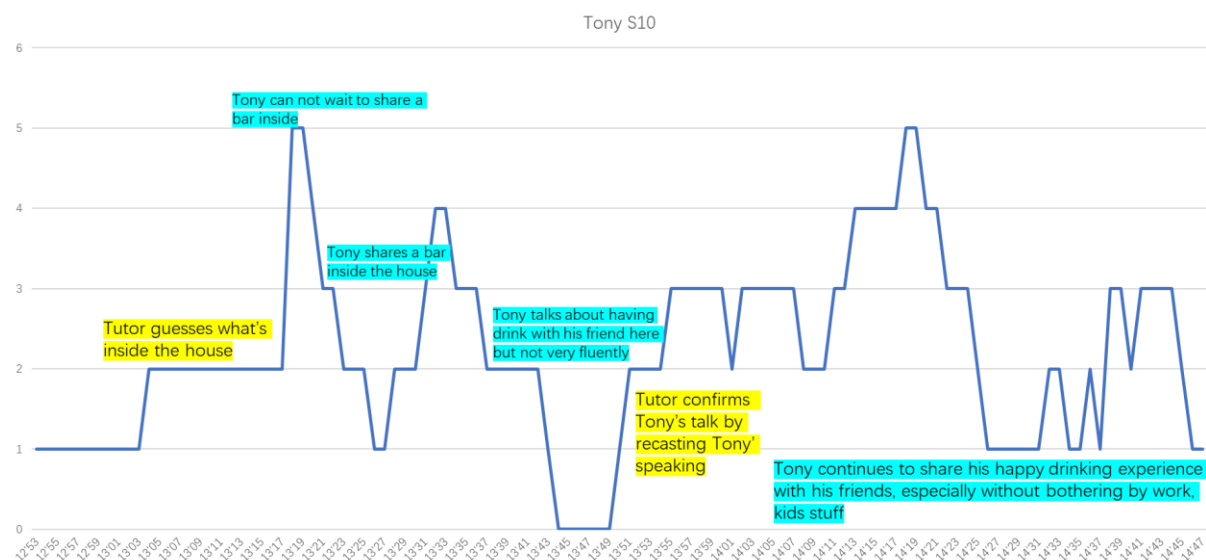
However, as he started to share his personal experience after 13'18, his Idio-WTCC dropped but was still above zero, potentially because he was not very fluent and sometimes made mistakes. He unfortunately did not share the reasoning for the drop. After Jiyao confirmed Tony's speech, his Idio-WTCC increased to +5 again around 14'18 as he continued to talk about the farm. Even in TS10, he was still very excited to

share everything concerning this building with me. His strong communicative intention to talk was founded on the fact that this photo was meaningful to him due to potentially relevant psychological and contextual factors, such as recounted emotions (pleasure, happiness) and life experience:

Because it [the photo] means something to me. Because it's such a fun place, I love being on the farm and I love hanging out you know I have invested a lot of my life into this little folder that you are looking at is a lot of my life, so I spend a lot of time there and I guess it is personal to me. (TS10)

Figure 6.20

Extract of Tony's output graph and talk (Time 12'53-14'47)



Another moment selected by Tony was when the tutor asked about a water tank next to the building (see Figure 6.19). The rise to +5 at 15'35 happened when Tony excitedly introduced this water tank, even though he incorrectly said “water”. For this increase, Tony again expressed excited anticipation:

Oh, man. this is good, I can't wait to tell him about this. Because again. This has taken a lot of hard labour to build it. (TS10)

Figure 6.21 shows a drop outlined in red. It occurred when Tony did not know the exact word for *litre* or the rules for counting in Chinese. When asked in TS10 to explain the

drop and how he felt facing obstacles, he said,

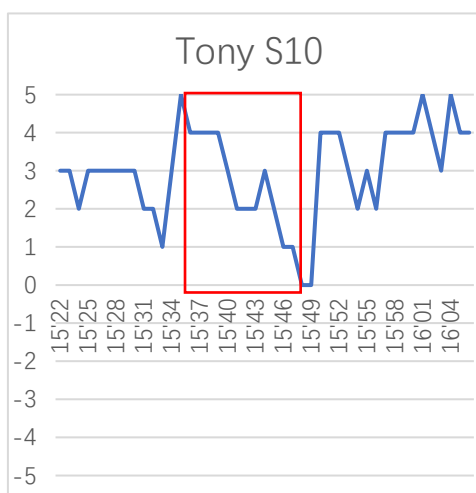
Even though I did not know how to say it, I was so excited like um to share this information, because I guess, these personal um, sacrifice that's gone into this physical structure and everything and you are looking at this picture so, because I am so um emotionally attached to it, I guess. I don't care if I don't know how to say it, I just wanted to say something. (TS10)

This statement suggests that meaningful communication with emotional investment could overcome Tony's difficulty when sharing everything concerning this photo. Thus, his desire to communicate went up to quickly recover his Idio-WTCC after a nine-second decline. As he summarised this activity:

talking about [the picture] I naturally wanted to talk a lot, I could talk for days about it, no matter what if I did not know how to say the word, I was always going to be talking a lot. (TS10)

Figure 6.21

Extract of Tony's output graph (Time 15'20-16'05)



Tony's account in the interview of the unrecorded talk about the second picture showed he was still highly willing to share his experience because that picture of a beach reminded him of his whole childhood. He said if he could rate it, it would be "a flat line the whole time just like 高高高 (high, high, high) always". He asserted that he was deeply connected with the picture that captured and restored his precious memory:

In this case then I will happily talk as much as possible and in this case, with this particular part of my life, I could be talking to myself, and I would dream to myself about this so. (TS10)

In general, tiredness from work influenced Tony's Idio-WTC in the casual chat, but meaningful pictures triggered his desire to share his upbringing with his tutor.

6.5 Tutor's and Learner's Perceptions of Tony's WTCC: Alignment or Divergence?

This section provides an overview of the findings from the perceptions of both the tutor and the learner on the learner's WTCC. The data are generated from idiodynamic Sessions 2, 6, and 10. By triangulating tutor and learner viewpoints, this section provides a picture of Tony's Idio-WTCC more comprehensively and identifies any gaps, differences and points of convergence between them. One remarkable overlap of the Idio-WTCC between learner-self ratings and the tutor's ratings was observed when Tony was sharing his picture in Session 10. All in all, Jiyao's rating of Tony's Idio-WTCC fluctuated between -5 to +5, which is more dramatic and consistent than Tony's self-rated Idio-WTCC. Next, I will choose a single excerpt from each of the three sessions unpacking their perceptions of the reasons for the fluctuation in learner's Idio-WTCC, to explain the alignment of their ratings.

6.5.1 SCOLT-WTCC 2 "I should have added a little more"

In Session 2, it is evident that WTCC synchrony exists to some degree between Jiyao and Tony during the period when Tony was receiving praise after reviewing words (see Figure 6.22). Both of them gave positive ratings about Tony's WTCC at this moment. In Tony's opinion, he stressed the tutor's praise as an opportunity to have a casual chat or conversation (see Section 6.4.1). Thus, he focused on his attempt to initiate a conversation by asking about the tutor's new job. However, Jiyao attributed different reasons for the increase, reporting that he was surprised by Tony's good memory of the words learned in the previous session, so he paid more attention to Tony's previous

linguistic performance rather than the later casual chat.

The reason for this difference might be their perspectives on revision. The JS2 data revealed that Jiyao was surprised by the learner's performance, and he then wondered whether he should focus more on content in his teaching.

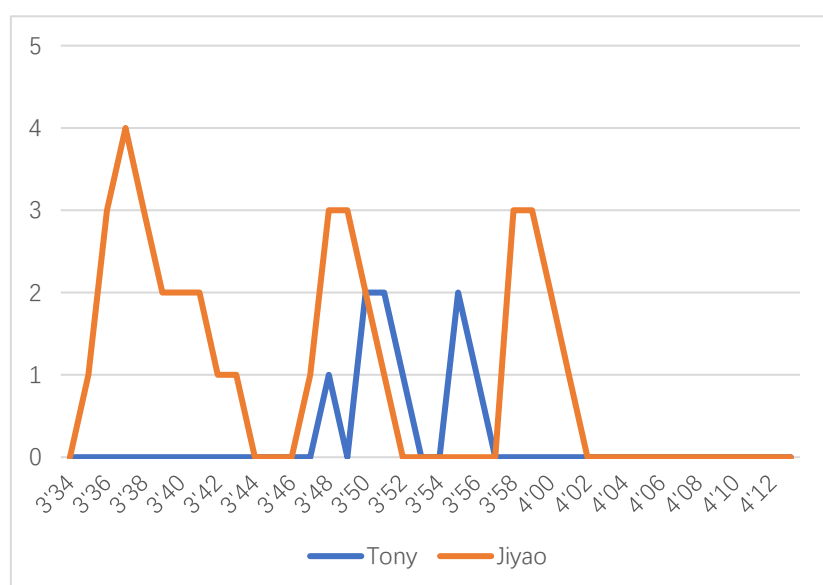
I think my feelings at that moment were, I should've added a little bit more [content] in that process [reviewing activity]...I might ask him to do more based on the pictures if he could recall them well.

我觉得我当时的感受就是，其实那个过程[复习词汇]当中，我可以稍微再加一点点[内容]...如果他回忆程度很好，那我可能就会针对这个图片给他提出更高的要求。(JS2)

However, Tony recalled in TS2 that he was quiet during the reviewing activity especially compared to the first class, where he and Jiyao had just chatted, so he identified it as a learning activity rather than having a conversation. As he said, "I just thought let him try to actually teach something". The tutor did not provide Tony with a chance to converse.

Figure 6.22

Idio-WTCC ratings for Tony and Jiyao ratings of Tony in the 3'34-4'13 of SCOLT-WTCC 2 conversation



6.5.2 SCOLT-WTCC 6 “In fact, it was my fault”

In session 6, Tony reported on the two overly long explanations which constrained his WTCC. One of them will be examined further in this section – when Tony asked about the traditional Chinese writing on the gate, and Jiyao did not expect this question. They spent 3 minutes and 46 seconds explaining it by eliciting three examples.

In their individual StRIs, both reported negative attitudes toward the overlong explanation. Tony’s frustration due to a lack of understanding of the tutor’s explanation has been recorded in Section 6.4.2. Jiyao stated that “后面基本上是负的，就是很降，其实我本身有很大的问题” (the following ratings [for this period] were negative, mostly dropping, it was mainly my fault). Jiyao thought he had been stubborn about sticking to the explanation because he thought that Tony did not understand what he was saying. He attributed this to a constraint on his preparation for this moment.

Interestingly, as shown in Figure 6.23, Jiyao’s ratings also displayed positively several times represented by the circled letters, but mismatched Tony’s positive ratings. Regarding Tony’s positive ratings at ①②③④, where Jiyao gave opposite ratings. Jiyao said,

Sometimes, he wanted me to think he understood, he told me that he understood twice, but I think he didn’t. I was a little bit stubborn, and I think the stubbornness came from the fact that I felt that I did not make it clear to him.

有时他可能为了让我知道他懂了，但是我可能那个时候我觉得我有一点点固执，我觉得他没有懂。因为他其实后面跟我说两次我明白。然后我很固执地觉得他没有懂，然后我的这个固执来源于就是我觉得这个知识点我没有跟他讲好，我自己这个地方过不去，所以我就觉得他是没有懂。(JS6)

Jiyao was thus aware that Tony did not understand, even though Tony asserted that he did. Tony admitted to saying, “I understand”, in the hope of changing the topic. However, Jiyao insisted on further explanation rather than giving up on the topic.

Jiyao’s positive ratings (A B C D in Figure 6.23), were the opposite of Tony’s. They began high as he began to answer Tony’s question, assuming his interest in the topic (A B). However, while Jiyao continued to attribute high WTCC to Tony, based on his further question of “why”:

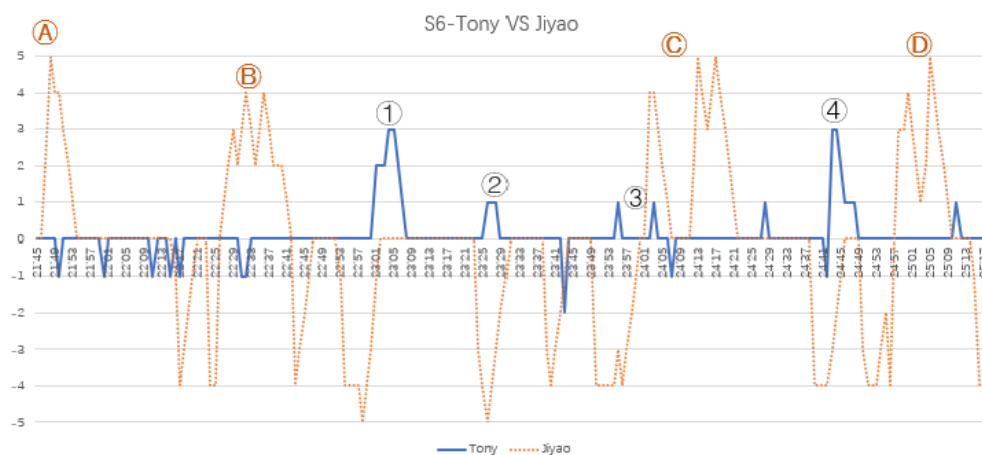
I felt that he actually wanted to communicate until he gave me a signal which was when he asked me “why” [C D], but neither he nor I could make it clear.

直到他给我信号[C D], 他问为什么, 然后我才觉得说他其实是想要沟通的, 就是我和他的能力都达不到。(JS6)

However, Tony’s willingness declined in his confusion and peaked only when he hoped to bring the discussion to a close by asserting his understanding.

Figure 6.23

Idio-WTCC ratings for Tony and Jiyao ratings of Tony in the 21’45-25’17 of SCOLT-WTCC 6 conversation



6.5.3 SCOLT-WTCC 10 “He did the most talking”

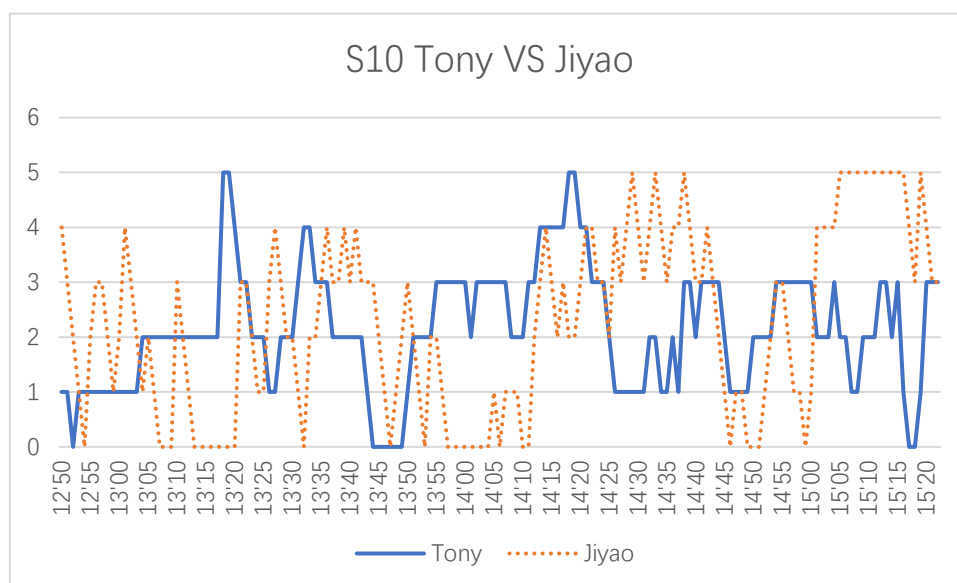
In the picture describing the task in Session 10, Jiyao and Tony gave several peaks in Idio-WTCC ratings. Figure 6.24 reveals Idio-WTCC ratings from both sides at one of the moments where Tony was sharing what was inside the building on the farm. In general, their Idio-WTCC ratings remained high even though there were fluctuations. Tony attributed his high Idio-WTCC to the meaningful picture in which he deeply

engaged emotionally.

Jiyao first praised Tony’s overall performance and said that “基本上是他[Tony]在说 (He [Tony] did most of the talking)”. Jiyao summarised two reasons he thought Tony had a strong desire to talk during this period. First, Tony was familiar with the picture. Second, he was interested in the topic related to wine. When talking about the bar, Tony was excited. Third, Jiyao and Tony had established a closer relationship, in which Tony wanted to share everything even though he spoke with frequent pauses, hesitations, and grammar mistakes.

Figure 6.24

Idio-WTCC ratings for Tony and Jiyao ratings of Tony in the 21’45-25’17 of SCOLT-WTCC 10 conversation (Time 12’53-14’47)



6.6 Summary

All in all, there were various highs and lows in terms of Tony’s WTCC ratings on multiple levels across different timescales. At the macro level, there were greater fluctuations across time. Tony’s feelings of control in the course sequence, the privacy of the classroom environment, and the timing of class would influence his overall feelings and evaluation. On Level 2, a range of influential factors, including his positive

experience of authentic and natural communication, his familiarity with and interest in topics, and his tutor's support, alternatively or interactively made his WTCC relatively unstable. However, at the micro level, even though his Idio-WTCC on a per-second basis, the predominant impression was relatively stable, with only a few occasions showing extremes in his willingness to communicate.

Comparing Idio-WTCC ratings collected from Jiyao and Tony, the tutor's ratings were more dynamic than Tony's, although both held a shared perception and rated Tony's performance in photo describing tasks at a similar level. For the rest of the idiodynamic sessions, no clear overlaps were observed. This might be because the tutor mainly focused on his one-way teaching rather than on Tony's ideal of two-way communication, which began to become more reciprocal as their relationship became closer.

Next, I will report two final cases in Chapters 7 and 8, where two learners, Vicky and Dan respectively, were both experienced high and stable WTCC and shared some similarities in terms of WTCC.

Chapter 7 Case Vicky

7.1 Background Information

The learner, Vicky, was a 39-year-old female learner who had moved to New Zealand when she was 18 with her family from Eastern Europe. Vicky worked in her small family business manufacturing toiletries and spirits and often did voluntary work for her ethnic community in New Zealand. Vicky recounted her language background and learning experience in the pre-SCOLT questionnaire and reported that she was a multilingual person, able to speak in two mother tongues, with native-like competence in English, and a competent user of French and Chinese for socialisation (not yet professional context). In addition, she had just started to learn Spanish when taking part in this study in 2021. She also reported on the questionnaire that, if possible, she would love to share her knowledge of making perfume and spirits in these languages with people from around the world.

In response to the questions about why she wanted to learn Chinese, she attached the highest rating available to every item listed, including interest in the Chinese language, people and culture, the importance for her employment, desire to travel around China, and having friends who speak Chinese. She had been to China three times, including two language exchange programs hosted at Peking University under the auspices of MU. As Vicky was studying for her Bachelor of Arts in Chinese by distance, she had extensive online Chinese experience. As illustrated in Table 5.1, Vicky stood out because her questionnaire score for both WTCC-Trait and perceived communicative competence was the highest among the four participants, her anxiety score was the lowest, and her motivation score in learning Chinese was relatively high. Her general WTCC-Trait ratings indicated that she might find herself highly desirous of participating fully in oral interaction with the tutor.

Vicky shared the same tutor, Yating, who had also the SCOLT-WTCC sessions with Ella (see Chapter 5). Yating had gained rich experience in online one-to-one tutorials from teaching SCOLT-WTCC sessions and US students by the time she taught Vicky. When I contacted her about whether she would like to participate in the SCOLT-WTCC study again, Yating expressed a strong desire to conduct the ten one-to-one sessions with Vicky.

7.2 Level 1 Trajectory of Vicky's WTCC over Ten Sessions

Vicky attended ten sessions with Yating, via the ZOOM platform. Table 7.1 summarises the topics introduced in each session and Vicky's Session-WTCC ratings. For the first session, tutor Yating conducted the same tutorial procedure as she had conducted with Ella, with a self-introduction first to elicit Vicky's introduction. In negotiating the coming sessions' topics, perhaps something she learned from the experience she had with Ella and other one-on-one Chinese language learning programs between BLCU and one American university, so she decided taking on this approach by listing eight topics and asking Vicky to choose four from them. Vicky's choices were shopping, travel, movies, and change. Sessions 2 and 3 were about shopping, including purchasing criteria, payment methods, and online shopping. The topics for Sessions 4 and 5 were about travel, mainly focusing on various types of travel, transportation, and preferred destinations. However, unfortunately, the Session 5 video recording data were lost because of the unstable internet, hence would not be reported in detail here. Sessions 6, 7 and 8 were about movies, where they covered vocabulary related to types of movies and discussed a movie called *Eat Drink Man Woman*. Session 9 was dedicated to the last topic, perceived change in life and the cities they lived in. In Session 10, the topic of healthy lifestyle recommended by the learner was discussed.

Vicky's ratings (see Table 7.1), self-reported after each session, reveal general willingness to communicate for each session. There was very little variation in her

Session-WTCC; she maintained a high level of stability at 100 points, apart from one session scoring 90, throughout the whole SCOLT-WTCC project. It can be said that her WTCC moved into an attractor (see Section 2.3.1) that lasted till the end of the SCOLT-WTCC, although her WTCC was slightly perturbed in Session 5 due to the unstable internet.

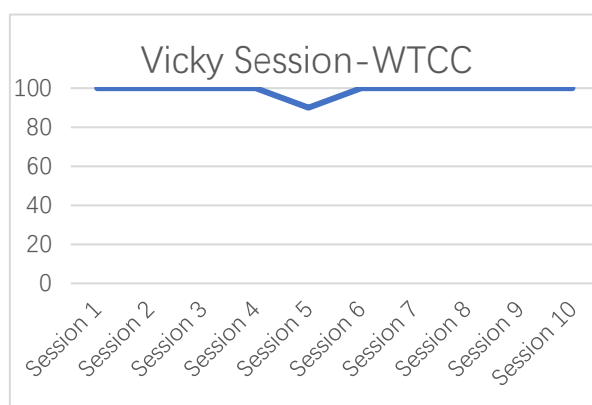
Table 7.1

A summary of topics performed in individual sessions along with Vicky's Session-WTCC score in each session

SCOLT-WTCC	Topics/contents	Session-WTCC
Session 1	Self-introduction and agreeing with topics to carry on the sessions topics for the following sessions	100
Session 2	Shopping: payment methods; shopping standard.	100
Session 3	Shopping: criterion in purchasing house, car, and food; online shopping	100
Session 4	Travel: travel methods, transportation types, the favourite part of tourist attraction	100
Session 5	Travel (Missing video recording data)	90
Session 6	Movies: discussion of movie types	100
Session 7	Movies: Eat Drink Man Woman	100
Session 8	Movies: Eat Drink Man Woman	100
Session 9	Change: description of tutor and Vicky's change via photos, changes in the city	100
Session 10	Life and health	100

Figure 7.1

Fluctuations of Vicky's Session-WTCC over ten sessions



7.3 Level 2 Change of Grid-WTCC within Each Session

In line with the extremely high and stable Session-WTCC, Vicky's Grid-WTCC also revealed a sustained high-level pattern for each individual session with consistent values of 5, which is the highest level in the Grid. There was no change in her ratings, so I will move to Vicky's self-accounts in the journals to investigate the formation of the constantly high Grid-WTCC attractors in real time.

The journals revealed no situations where Vicky felt reluctant to speak, but several situations and associated factors for which she felt highly willing to communicate in specific sessions. The most salient factor that drove her WTCC was her motivation to learn Chinese. Vicky expressed this in the journal, "as I am highly motivated to study Chinese to be able to use it in everyday life fluently, my willingness to communicate in Chinese and thus practice Chinese is already quite high" (VJ3). This strong intrinsic motivation to use Chinese in daily life drove her to not only actively involve herself in any activities during sessions, but also to put extra effort and time into her homework. Her journal entries reflected the role of homework in enhancing WTCC. After Session 5, Vicky recorded a moment when the homework set by the tutor had spurred enthusiasm for their next session:

When my teacher Yating was giving me my homework to interview her in regards to her travelling, using the questions and terminology learned during the sessions 4 and 5. I was really glad to have an opportunity to ask her about her travelling because she mentioned one of her favourite places for travelling in China is Tibet, and I am very interested in going to Tibet one day, but have not met many people who have been there and can tell me about their experiences and advise on what to experience in Tibet. (VJ5)

This was an instance of willingness to participate in the receptive aspect of communication, listening for personally relevant information, it shows explicitly that Vicky's interest and desire about Chinese learning (see Section 7.1) motivated her investment in L2-related learning outside the SCOLT-WTCC sessions. More importantly, she felt very willing to take on the challenge and conduct an interview

because of her interest in Tibet, a destination she had been wanting to visit but had not gotten an opportunity to do so. Therefore, interviewing her tutor was a unique opportunity to learn about it, potentially indicating the trust established between herself and her tutor, as she found Yating trustworthy. Besides, receiving feedback on her homework in the following session would drive Vicky to engage more in that session, for example:

I feel it is very important to have feedback on the homework I have done, any mistakes that should be corrected, etc. I was very happy to see that my tutor took her time to correct mistakes in my homework – this is so important for me to improve. (VJ3)

The above demonstrated that Vicky placed importance on feedback provided on her homework because this was a good opportunity to improve her performance. Vicky particularly appreciated the tutor taking time to evaluate her homework.

The second factor in promoting Vicky's Grid-WTCC was topic interest and topic knowledge. She repeatedly stated her interest in various topics in the journals. For example, Vicky was interested in travel, and such interest could be enhanced by her prior knowledge because her lived experience provided her with space to share her good memories. As she wrote:

My 'most willing to communicate moment' was when my tutor asked me about my travel experience in China and what local things/attractions I liked most in China; this question brought up a lot of good memories. (VJ4)

In every journal entry, she stressed that the topic factor was highly interrelated with her communication competence. Vicky found that some topics were easier than others to talk about, depending on how much relevant Chinese vocabulary she had and how familiar the specific topics were for her. Thus, familiarity with the topic and linguistic factors influenced her WTCC. This familiarity with the topic and relevant words could result from both everyday life experience (VJ3) and language learning experience (VJ4). For instance,

Topic factor: easy topic for me to discuss, as had enough Chinese vocabulary already to talk about my past travel experiences, plus an interesting topic to discuss.

Communication competence factor: as mentioned above, familiar topic for me with familiar terminology, and the topic of travelling was taught to me in Massey and Beijing University's language courses. (VJ4)

Vicky had Chinese words required for the topic of travelling because of her past language learning courses, so she felt competent and willing to communicate about this topic. As topics flowed over more than a single session: shopping (Sessions 2 and 3), travel (Sessions 4 and 5), and movies (Sessions 6, 7, and 8), Vicky realised that the experience of talking about the same topic in the previous session enabled her to communicate well in the subsequent session. For example:

I was already relatively well familiar with this topic of travelling, so quite well-prepared to communicate about it. Moreover, this 5th session was the second session on the topic of travelling, so having learned a bunch of useful words and phrases during the previous session certainly also helped me a lot to feel competent and willing to communicate about this topic. (VJ5)

this SCOLT session #8 was somewhat challenging, but less challenging than the previous #7, because we carried on the same topic from the previous one, and I had the opportunity to prepare. (VJ8)

The interrelation between topic and linguistic variables was thus identified as an influence on Vicky's WTCC. In terms of challenging topics, her positive attitude could also contribute to the maintenance of high WTCC, even in the face of linguistic limitations. In Session 8, she admitted her limited vocabulary constrained her ability to think of an alternative name for the movie being discussed. However, overcoming this challenge gave her a sense of achievement. As she wrote:

I felt it was a good opportunity to use my creativity to be able to come up with a new name using my currently relatively limited vocabulary. Being able to complete a task well when you have a good command of the language feels good but being able to complete the task while being limited in skills, experience, etc., feels even better – like a small victory over the circumstances. (VJ7)

The third factor related to Vicky's high WTCC was the tutor. Vicky wrote in journals that tutor Yating positively affected her WTCC. For example, she commented highly favourably on Yating's professionalism in devising interesting and interactive sessions (VJ3). She also thought the way she organised the teaching, by providing opportunities to learn and repeat relevant Chinese words before discussing topics which were useful for communication, made it easier for her to communicate (VJ4), thus, creating a well-organised session (VJ9).

My tutor is very professional, helpful and patient, so this is definitely the factor that makes me keen and willing to communicate, as I feel comfortable speaking Chinese to her. (VJ3)

Last but not least, the technology factor also influenced Vicky's WTCC. In session 5, Yating and Vicky restarted ZOOM several times due to an unstable internet connection and could not communicate well. Vicky narrated that this technology-related issue prevented her from actively communicating as they were cut off several times, but that did not lower her WTCC or completely shut her down:

So, there were several times when I wanted to communicate, but I could tell that the teacher could not hear me, so I did not talk, and we had to reboot our devices a few times. However, that did not dishearten me from continuing to try again and again to carry on with the lesson and to communicate during the lesson. (VJ5)

To sum up, Vicky's Grid-WTCC in Level 2 could be evaluated as maintaining a consistently high rate. She reported the factors contributing to high WTCC, including her strong motivation to become a fluent Chinese speaker, interest in various topics, recognition of the tutor's affective and pedagogical support, and positive attitude toward challenging tasks.

7.4 Level 3 Dynamics of Idio-WTCC in Single Interactions

As explained in the previous chapters, assessing the Idio-WTCC involved second-by-second noting of responses recalled while watching her recorded sessions, followed by a stimulated recall interview with the researcher. This section will demonstrate the

dynamic changes in Vicky's WTCC over very short periods of time during the idiodynamic sessions 2, 6, and 10.

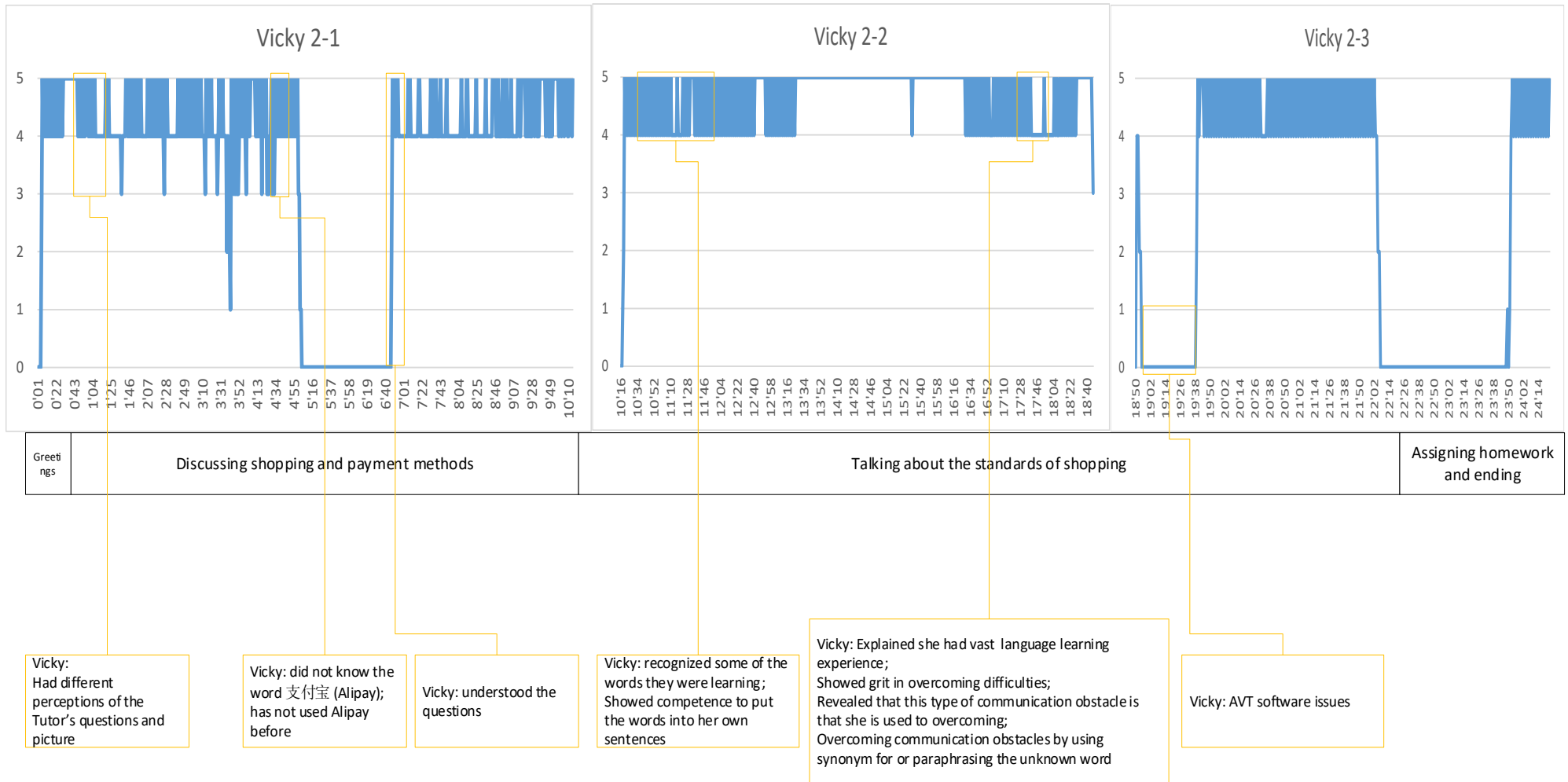
7.4.1 SCOLT-WTCC 2 “Anything about language learning is interesting to me.”

Session 2, the first where the idiodynamic method was conducted, was devoted to the topic of shopping that Vicky had chosen in Session 1. Figure 7.2 illustrates the second session, including the activities and events making up the class content, Vicky's idiodynamic ratings, and her perceptions or explanations at specific moments in StRI. In line with her ratings in levels 1 and 2 above, she also maintained high WTCC in the idiodynamic level as her values were mainly +4 or +5, which meant her Idio-WTCC also formed a long-lasting attractor. Even though there were several times when her Idio-WTCC dropped to 0, she attributed this to the rating software AVT2, which reverted to 0 unless she made an active response. Otherwise, her Idio-WTCC would have been +5 throughout the whole session. But she perceived the process of rewatching session video recordings during rating WTCC and participating in the StRI in this case as a good chance for learning and improving her Chinese, “I think it's very good idea to review within 48 hours... It's not just understanding but retention” (VS2).

Generally, she was satisfied with this lesson, in particular the way it was organised. Compared with the casual chat in Session 1, she became aware that Session 2 was based on a topic selected by her in the previous session. Even though she had chosen four topics in Session 1, she did not know how these topics would be applied in the SCOLT environment or what she needed to prepare. It seems this uncertainty about the content or structure of the lesson evoked her curiosity and focus to discover the emerging activities. The session turned out to have an easy flow and made her comfortable to talk:

Figure 7.2

Case Vicky idiodynamic ratings in SCOLT-WTCC 2



It's another structure which is nice and easy for me to work with, but the first time you always find out, you discover what the teacher's structure for the lesson is and you get used to the structure. Then for the next session, I already know kind of what to expect. (VS2)

There were several moments that displayed how Vicky maintained high Idio-WTCC even though she had difficulties understanding Yating's questions. During a picture description activity, Yating displayed a photo of a girl holding a cup of coffee and walking on the street. She asked a question “上周我去购物，买了什么？ (Last week I went shopping, what did I buy?)”. Vicky first answered “coffee” and then she was guided to provide additional information to answer “coat, shirt, and trousers”. Even though she got a little bit lost at first as she thought that the girl in the photo had not gone shopping yet, Vicky quickly realised the tutor's point that the girl had already put on what she had bought. However, her difficulty in understanding caused by different perceptions did not influence her WTCC. It might be because she felt intrigued by anything related to language learning, potentially indicating that she simply loves learning Chinese:

So, anything about language learning is interesting to me, and if there is a problem, I don't know how to solve it this instant, so maybe I am not thinking the correct way. I should stop thinking in the standard way, I should just think somehow else. And because... another person when they picture something in their brain is different from what you think. (VS2)

The second moment where Vicky did not fully understand the question occurred because she did not know about a payment method 支付宝 (Alipay, a commonly used online payment method in China). She explained that she knew Alipay, but she had only used WeChat payment when she was in China. Therefore, her lack of experience in using Alipay led to her difficulty in understanding the word 支付宝支付 (Alipay payment), as she explained in VS2:

But some of the words, because you are not using this option, you are not actually learning the term, either ... because it is not useful to you personally...where your interests are, and what your daily reality is, it's where you are going to learn the terminology first of all to do with this daily life. (VS2)

This comment reflected Vicky's view of language learning, that is, learning and using were inseparable. This view helped her perceive difficulties in communication as potential chances for learning and she tended to be active in seeking communicative opportunities to use new language in order to integrate it into her known language.

Another event that illustrated how learning and using worked together occurred when they were discussing shopping standards. They began by learning and discussing words related to criteria they applied in shopping. In VS2, Vicky said that she had feelings of achievement after she could make sentences with some words that she hadn't been confident enough to use initially.

Oh, cool, so now I know how to make a good sentence with these words, not just kind of recognise it and guess the meaning... It's very nice when you know some of the words, it's not all – it's not all unknown, not all foreign, you already know some of it, but you are not confident enough to start using it yourself, but now but when the teacher showed you and helped you and taught you to start using this word in your own sentences, they gave you a kind of structure to work with and you started using it. (VS2)

The above statement revealed that Vicky did not stick to the limitations caused by her current level, rather she utilised what she could do now and constantly integrated new words with those already known by making sentences. More importantly, Vicky acknowledged that with the tutor's help, as she checked the accuracy of the sentences and provided guidance and feedback, she could accomplish tasks that would have been beyond her on her own, implying her sensitivity to her Zone of Proximal Development. She could thus quickly make use of the tutor's mediation to improve her Chinese. For example, she reported a moment when she integrated the structure of the tutor's questions into her answer:

So for example this question here 你认为一个好老师的标准是什么 [What do you think are the criteria for a good teacher]. So it's easy for me to take this question and make it into a sentence to say 我认为一个好老师的标准是 [I think the criteria for a good teacher are] and then carry on. You've got something to work with. (VS2)

The tutor's question set a template for her answer. Thus, this moment illustrated that a

myriad of complex factors, such as the interaction between learning and using, known words, tutor's questions and feedback, affected Vicky's communication.

When interviewed in VS2 about her feeling of struggle to answer the question 好工作的标准是什么(What are the criteria of a good job?), Vicky said that the strategy developed from past experience in language learning helped her confidently overcome difficulties. Thus, if she faced obstacles, lacking specific vocabulary for that question in this case, she would manage to find other expressions to explain the same thing and keep trying instead of giving up easily:

I was trying to translate directly from English, from the language transference, my standard for the good job is you know good salary and then I don't have enough vocabulary in Chinese to translate directly from English, but I learned that if I pause and wait for the sentence and I think I will be able to produce – to use other words, other ways to express the same thoughts. So, this is my confidence in speaking. I have developed this confidence during the years learning other languages. If I don't know how to say maybe this word maybe there are other ways, maybe a longer way, but to explain the same thing. (VS2)

Generally, Vicky's high and stable Idio-WTCC can be explained through her interest in learning Chinese, her belief in the inseparable relationship between language learning and using, her awareness of her Zone of Proximal Development, and language learning strategies developed through her rich experience of and exposure to learning many languages.

7.4.2 SCOLT-WTCC 6 “It's not me learning from Yating, maybe I can tell something to Yating which she has not heard about”

Vicky's Idio-WTCC still remained high in Session 6 as shown in Figure 7.3 and this session focused on learning and discussing different movie types. In terms of the reasons for promoting her strong intention to talk, she often mentioned topic interest and topic knowledge in her VS6. Commenting on the movie types, she expressed her interest in animation films. She stated that posters for Disney animated films on Yating's PowerPoint slide activated her happy feelings and memories. She shared that

watching cartoons was a good way to learn a language because it provided her with a pleasant and relaxed atmosphere to follow the storylines easily. Thus, seeing the posters not only helped her learn words about movie types but also aroused her desire to speak.

Besides taking in information from Yating, Vicky also desired to share topical information with her, in particular about her life stories. There was another poster on the slide for the movie *Avatar*; Vicky could not wait to share the information that the movie's director had bought a lot of land in New Zealand (6'29 to 7'21) and her mother had sold one product to his wife. As she said:

It's not just me learning from [Tutor] Yating, maybe I can tell something to Yating which she has not heard about, and it's related to New Zealand...and Avatar, I saw this movie, of course it made me suddenly to think about James Cameron. (VS6)

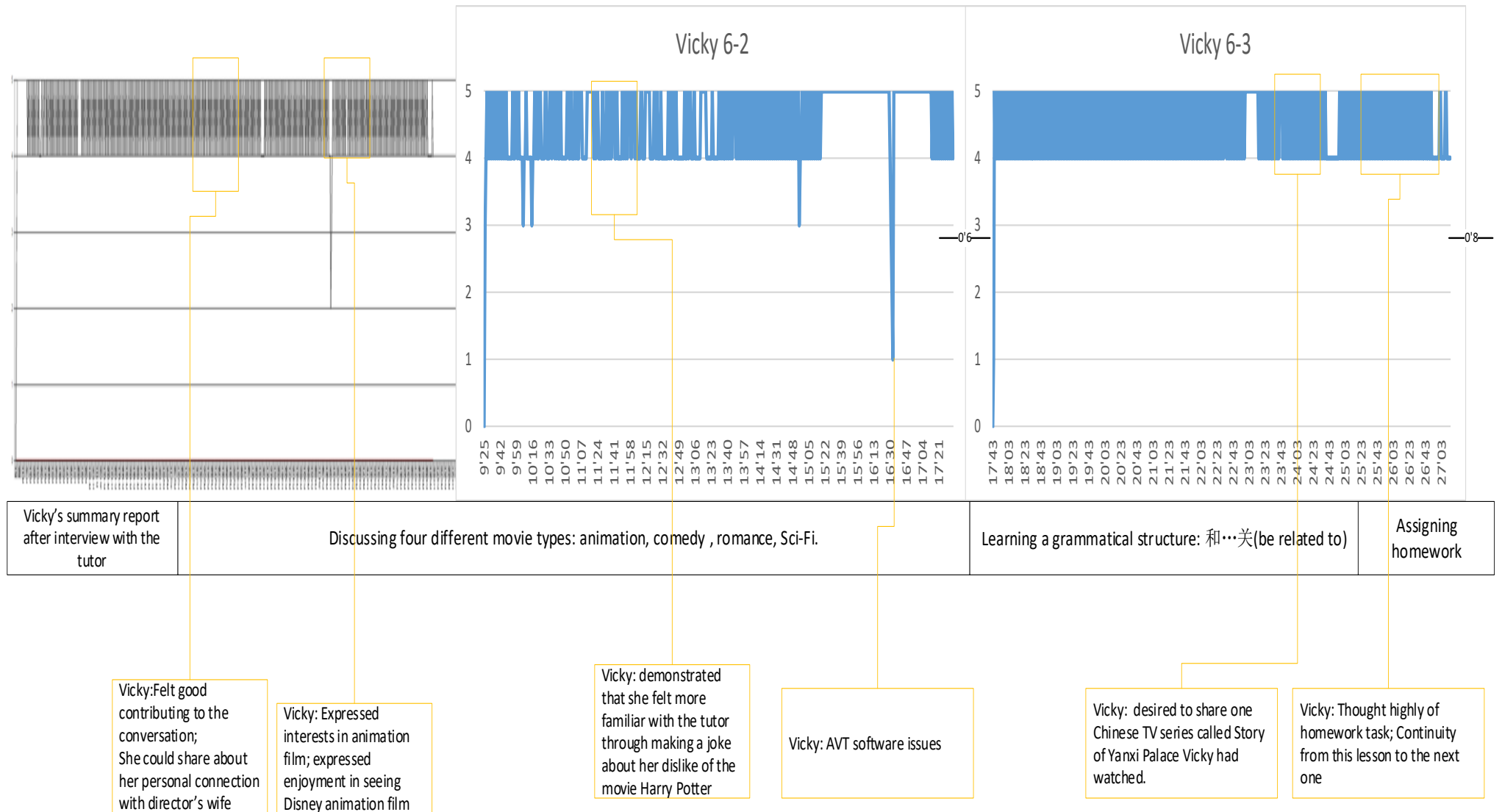
In addition to the desire to share information arising from her lived experience, Vicky enjoyed the moment when she was able to surprise Yating with her knowledge or life history. For instance, the tutor asked her about which Chinese movie she had been watching recently, and she did not talk about the movies but was excited to share a Chinese TV series called *Story of Yanxi Palace* around 22'30 to 25'00.

In VS6, Vicky stated that she was not only interested in this TV series, but she also enjoyed Chinese people's surprise when she told them she had watched it.

Because everybody who I say I saw this movie 延禧攻略(Story of Yanxi Palace), [they replied] "oh, really, you also watch this one"...because it has so many interesting things, interesting moments not unusual, so I think she likes this movie and I like this movie, so I always love to discuss this movie a little bit with other people. (VS6)

Figure 7.3

Case Vicky idiodynamic ratings in SCOLT-WTCC 6



The increasing familiarity with the tutor enabled Vicky to share her authentic thoughts or opinions. She reported a moment in VS6 where she made clear to her tutor that she disliked the film, *Harry Potter*; but she would not say that to people she was not familiar with or to the fans of the film.

If I don't like something I am not going to say I don't like it, if I don't know this person you know for the first time I see this person...I already know that from several lessons ... what personality you know about her... so if I say this to her, she might laugh with me and shows and find it interesting you know funny. Because it's also like the conversation, it's not just the lesson, it's also kind of conversation so you're trying to be interesting for your you know with your tutor. (VS6)

In sum, Vicky maintained high Idio-WTCC throughout the session because of her topic interest and knowledge and her growing familiarity with her tutor.

7.4.3 SCOLT-WTCC10 “I love making good jokes and having people laugh with me”

Vicky's Idio-WTCC appeared to fluctuate in Figure 7.4, but this was caused by the auto-zero function of the software (MacIntyre & Legatto, 2011) as it masked the fact that she actually maintained high WTCC over the entire period. She explained that she had been interrupted by some calls during the evaluation of her Idio-WTCC, so she had to pause the rating which disrupted the software processes and led to some 0 ratings. As she recalled, there was only one section in the session where Yating played a video which she did not rate, but her WTCC ratings should have stayed high for the rest of the session.

As for the factors facilitating her high Idio-WTCC, her love of making jokes emerged in this session. Vicky recalled in VS10 a moment where she enjoyed making her tutor laugh by giving a piece of advice commonly given in Chinese, 多喝热水(drink warm water). In the video recording, Yating seemed to be surprised and amused to hear such advice from someone who was not Chinese, and asked rhetorically with a smile, 真的

吗? (really?), when Vicky said, she considered drinking warm water healthy. Vicky explained in VS10 that she wanted to do something funny at that moment to respond to the question:

What else can I say, oh okay, to say something funny and I remember about this Chinese saying 多喝水 [drink warm water] so I said that, and she got laughing because it's Chinese favourite advice if something goes wrong...then we moved more serious (VS10)

Vicky stated that making jokes helped people relax and laugh, thus further facilitating more communication and cooperation with each other.

I love making good jokes and having people laugh with me, and I, and you know, say somebody tells me something funny and I also feel quite happy...people are relaxing, and people are more willing to cooperate with you.(VS10)

In the section where Vicky was asked to give advice on the tutor's daily schedule, she said she felt excited about the task because it was unusual and interesting. Even though she had some difficulty with Chinese characters when looking at the PowerPoint showing Yating's daily routine, she still felt highly willing to communicate with her help. She had not expected her tutor to ask her advice, indicating the role of the novelty of the task in arousing her interest and her Idio-WTCC.

Because normally the teacher just asks a question, just "tell me can you? do you know this? how they answer this?" but when she said, look at this and give me some advice, and I think it's a little bit unusual, but it was good...when it's not just a question, when something a lit bit unexpected happens, and it makes you kind of wake up. (VS10)

Vicky felt more needed by Yating as the tutor asked her for some advice which was learning towards everyday problem-solving contexts. She seemed to think she had to do something to help out, so she felt more engaged. This also implied that she felt that Yating was not just a tutor but also a friend.

Figure 7.4

Case Vicky idiodynamic ratings in SCOLT-WTCC 10



Vicky showed rapport between her and Yating near the end of the session, when she asked for the tutor's evaluation of her Chinese level. She said in VS10 that it was vital for her to know her progress after two years of learning Chinese.

Because I think Yating is a quite honest person seriously, anyway, so as for me, it's important to know my Chinese level. Because my Chinese progresses, so I keep studying it and keep progressing, so what my teacher told me two years ago...my problem was always the to a certain extent the pronunciation, the tones, when I first came to China and nobody could understand me, even if it's simple phrases... It was very hard for me to get used to the tones. All the other languages I spoke fluently, none of them have tones. (VS10)

The above statements reveal that Vicky desired to get validation from others as she put a great deal of effort into learning Chinese. She realised that her pronunciation initially caused her speech not to be understandable to others because the tones were a new element in language learning for her, and she could not benefit from previous language-learning experiences. After two years of practising and learning, Yating's assessment of her level was important to her.

7.5 Tutor's and Learner's Perceptions of Vicky's WTCC

Turning now to Yating's assessment of Vicky's WTCC, Yating, in YS10-V, said she felt that Vicky maintained a high WTCC over ten SCOLT-WTCC sessions. She also did an Idio-WTCC rating for Vicky to indicate her perceived ratings. Even though Yating thought that Vicky was willing to communicate all the time, her ratings of what she perceived to be Vicky's Idio-WTCC showed more fluctuation, rather than remaining consistently at the high end as Vicky's did. She wanted to differentiate Vicky's extreme WTCC moments, and this was demonstrated as some of her ratings for Vicky were extremely high. In YS2-V, Yating summarised her rating criteria, which were also shown in the other two idiodynamic sessions.

I would be more likely to give her positive ratings in the following situations: when she extended the conversations; when she had such a tone of happiness, sometimes she would be happy suddenly without a reason; when she could not stop talking; or when she spoke about

her own experience.

一个就是这个她进行拓展的时候，我可能会适当给她赋分。然后就是我听她的那个语气的时候...有的时候她会开心一下不知道为啥，就是开心然后就开始说，这个时候她整个状态比较比较开放的吧，然后她那个时候开始说我会给她赋分。然后我记得还有就是她停不下来的时候就一直说...还有就是她结合自身经历的时候，我会给她赋分。
(YS2-V)

At times when she extended conversations that included the expansion of linguistic aspects and the extension of the subject matter, Yating would rate Vicky's WTCC highly. In Session 2, when teaching words related to criteria for purchasing, Yating's ratings increased to +4, where Vicky brought together related vocabulary items into phrases. In particular, when she learned 价格 (price), Vicky said 价格合理 (reasonable price). In StRI, Yating expressed her surprise about her capability to make collocations for each word and her large vocabulary:

I only wanted her to know the meaning and pronunciations of those words, but she would put modifiers for them (price, quality) by herself, such as reasonable price, and high quality, which I did not expect and was not part of my design.

她自己就会给我加一些其他的修饰语进去，我可能当时只是想让她知道一些意思，然后我们练习读音什么的，但是她每次都会自己说一些价钱合理，质量高...我自己都没设计到要说质量高低什么的。(YS2-V)

Vicky perceived learning words as a good opportunity to put them in her sentences. Thus, she was willing to practice words by answering questions with sentences (see Section 7.4.1). As her active engagement in making collocations with words also enabled the tutor to create a more accurate evaluation of her level, Yating suggested in StRI that she felt that she had under-evaluated Vicky's actual level of communication ability:

I was excited, I did not expect that she could say the word 'reasonable', 'goodness', I suddenly realised that her Chinese level was pretty high...in the following sessions, knowing more about her Chinese level, I would adjust the course design based on her level afterwards.

我当时很激动，我当时其实没有想到她会说合理这个词，当时我“啊，天哪”...我突然

觉得她水平还真挺好的，这种合理这种词都能说得出来...就可能在后来进行一个教学的时候，我可能会就会更加地，就是更了解她的语言水平，那之后我在设计一些问题啊，包括一些答案的时候，我可能会就是更加按照她这个水平做一些调整吧。(YS10-V)

Apart from the extension of the linguistic forms, Yating also tended to increase the ratings of Vicky's Idio-WTCC when she extended the conversations. For example, in Session 6, Vicky was asked to share what kind of movie she had seen recently; instead of talking about the movie, she answered with the TV series 延禧攻略 (Story of Yanxi Palace). Yating gave the same reason for her perception of high Idio-WTCC as Vicky did, which was Vicky's interest in this series. Besides, Yating assumed that Vicky was highly willing to share, even though she could have directly answered the question asked.

Here I asked about the movie, and if she had made her answer simple, she could have said she had not watched any movies lately. Even though she did not have relevant experience, Vicky still wanted to express herself around the topic. Thus, she shared a similar experience with me where I felt her state of being at that moment was good.

我明明其实问的是电影，但是其实她如果就是真得想简单回答，她就说最近没看什么电影就行了...然后即使没有这样的体验她也能够给我找到一些类似的体验来给我进行类似的表达，然后我觉得她这里那个状态是比较好的。(YS10-V)

According to the tutor, Vicky was very talkative, and Yating often could not stop her talking and take back control of the session. For example, in response to Vicky's advice on her daily schedule, Yating expressed her warm feeling in the StRI, as she assumed that Vicky truly cared about her:

She was like an elderly person, telling you what to do and what not to do... she was very actively giving me suggestions. However, I tried to interrupt her a little bit to summarise at some point so that we could talk about the next suggestion as there was another one left. Even though there were several similar situations where I implied that we should move on to the next section, she would keep talking and insisted on finishing what she was going to say.

她就像一个长辈一样，让你要干什么，不要干什么...她其实这里的积极性是格外高的，就是给我真得在提建议的这种。然后我当时其实我感觉我有点打断她了，就是我在想自己稍微做一个总结了，然后我们就说一说下一个建议...在这节课都有几个这样的场

景...即使你说什么, 即使你有一些反应, 是说暗示说我们可能要进入下一个板块, 但她还是在继续说, 然后把她要说的就说完。(YS10-V)

Although Yating held a positive attitude toward Vicky's active engagement and strong WTCC, she felt it hard to end Vicky's overly extended talking sometimes and assumed that Vicky did not listen carefully. For example, Yating used the word 拉扯 (pulling and dragging forces) to describe the tension when she tried to stop Vicky's talking in Session 2. In YS6-V, she recalled a moment when she had to drag Vicky back to the task to summarise what movie types they had learned. Yating said that 当时我想的是, 我得把她抓回来, 我要让她总结我们刚刚说的 (I thought that I had to urge her to summarise what we had said before). In Session 10, Vicky was asked about her daily routine, mainly about eating and sports habits, but she said she did not need to go to work. Yating had to repeat part of her question by directly asking Vicky, “你早餐吃什么? (What do you eat for breakfast?)”. In YS10-V, Yating said she was confused by an indirect answer Vicky had given here and used the word 答非所问 (answer wide of the mark) to indicate that she sometimes did not fully understand questions but gave answers without thinking too much:

Later, there were some questions that I would ask her to think about, and I would translate or explain to her. I remember that she sometimes gave irrelevant answers based on her previous assumption of the questions. Sometimes I would correct her.

所以就是后来有的问题, 我让她自己想一下, 我会给她翻译一下, 就会给她解释一下, 我记得之前有的时候就是问她问题, 她总是答非所问, 但是她仍然是按照她的那个预想去说了。但是就是有的时候还是会把她纠正过来。(YS10-V)

The above statement shows Yating's strategy of focusing Vicky's attention on the questions by reminding her to think, translating, and explaining the questions, because she felt that Vicky had a tendency to talk without thinking too much, and she also did not always seem to listen very carefully to the questions.

Last but not least, both Yating and Vicky recognised their rapport was built over time. Thus, they had increased their understanding of each other and established a good

communication atmosphere. For example, Yating noticed a change in Vicky's way of addressing her in Session 10. She recalled in YS10-V that near the end of the session, Vicky called her by her first name rather than 老师 (teacher) as she had before. Perhaps this change reflects a shift of relationship from tutor-learner to friendship, as Yating said that “可能是她觉得师生关系开始跨越到这种朋友的这种关系了 (She might feel that the teacher-student relationship was beginning to shift to the friendship)”.

7.6 Summary

Generally, Vicky's constantly high WTCC ratings on a second-by-second basis are consistent with her ratings in levels 1 and 2 of the data collection. The reasons for high WTCC in the interviews share many factors with her journals: a strong motivation to become a fluent Chinese speaker, topic interest and knowledge, tutor's affective and pedagogical support, and positive attitude toward challenging tasks. Besides, past language learning experiences affected Vicky's WTCC, especially when she faced obstacles during conversations. Her confidence in speaking Chinese arose partly from extensive language learning experiences.

Regarding the correlations of Idio-WTCC ratings collected from the tutor and Ella, ratings on Vicky's WTCC from the tutor and Vicky did not show remarkable convergence because of Yating's sporadic evaluation. However, in Yating's interview, she recognised that Vicky had a constantly high WTCC, but wondered whether this served her entirely well as a language learner, as her desire to speak sometimes led to an avoidance of listening.

The next chapter regarding the learner Dan whose trajectory of WTCC is also quite stabilised as Vicky's but unique in that his WTCC mostly stayed at +3.

Chapter 8 Case Dan

8.1 Background Information

As mentioned earlier (see Section 4.4.4), Dan chose to maintain the original research design, different from the choices that the other three learners made, involving five sessions with his tutor applying the idiodynamic method after each session except the first session. At the commencement of this study (end of October 2020), the learner Dan was a 30-year-old male New Zealander who had graduated with a BA majoring in Chinese and was going to teach English in Guangzhou, a southern city in China. He had a rich online Chinese learning experience, including participation in the previous SCOLT learning a year before this study. He responded very promptly and keenly when invited to participate. In his questionnaire, he expressed that his motivations for learning Chinese came from career development, interest in Chinese people and culture, and desire to travel across China.

In the questionnaire, Dan indicated he was an introverted person, with a trait-WTCC of 794, relatively low compared with other participants of this study (see Table 5.1). Interestingly, he rated his Chinese communication competence extremely low, 102 out of a possible 1500, even though one of his teachers evaluated him as an advanced learner of Chinese. Regarding his motivational score, he rated himself 100% for the item on attitude towards learning Chinese and 60% for his desire to learn it, but he displayed a recent change in his efforts. He wrote in his answer for the item on the motivational intensity that “currently, it’s 0%; when I was studying at university, it was around 65-80”. The overall results for motivation indicated that his interest in using the Chinese he had learned appeared undiminished, given his enthusiasm for this project, despite the fact that he seemed not to feel satisfied with his effort in learning Chinese now.

The tutor, Chaonan, was a first-year student in the Master of Arts program in teaching Chinese to speakers of other languages. She was conducting one-to-one online Chinese teaching with US students when she participated in the SCOLT-WTCC study. Before she started her MA study at BLCU, she taught children online for a private language tutoring company for over four months.

8.2 Level 1 Trajectory of Dan's WTCC over Five Sessions

Unlike the other three participants in the previous chapters, Dan did not record his Grid-WTCC, and the data only included Session-WTCC at Level 1 and Idio-WTCC at Level 3.

As can be seen in Figure 8.1, Dan's Session-WTCC remained at 100 points after Session 1, indicating that he was highly willing to speak in this program. His remarks in the DS2 show that his stable high WTCC was due to building a rapport with the tutor in the first session. Thus, he felt comfortable talking to her in the subsequent sessions. He summarised his general WTCC over the five sessions in DS5:

My WTCC in the final session was the same as the fourth, third and second. I don't think I felt much different. (DS5)

Table 8.1 presents the topic introduced in each session and Dan's self-reported Session-WTCC ratings. Before the first learning session, the pair had established contact via WeChat. Dan did not tell Chaonan whether he had anything, in particular, he wanted to talk about but told her that he could not speak Chinese. The tutor was confused about Dan's Chinese level, as what had been gathered in his questionnaire was inconsistent with his claim that he barely understood Chinese. After Session 1, Chaonan was able to get an overall impression of Dan's Chinese competence through a self-introduction, as she told me on WeChat that "His Chinese is much better than I expected; he even knows the term 'fallacious praise' (他的汉语水平比我预期高太多了, 连谬赞这种词都知道)". Sticking to Chaonan's teaching plan negotiated in Session 1 with Dan, they

conducted a picture description task for Session 2. As Chaonan knew that Dan would go to China to teach English soon, she changed the teaching plan to discuss renting an apartment in China in Session 3 and the difference between Chinese and Western food cultures in Session 4. Before the final session, Chaonan sent Dan a video about wingsuit flying, an extreme sport, based on a female wingsuit pilot’s tragic jump in 2020. Session 5 was a discussion of Dan’s view of extreme sports based on the video.

Figure 8.1

Fluctuations of Dan’s Session-WTCC over five sessions

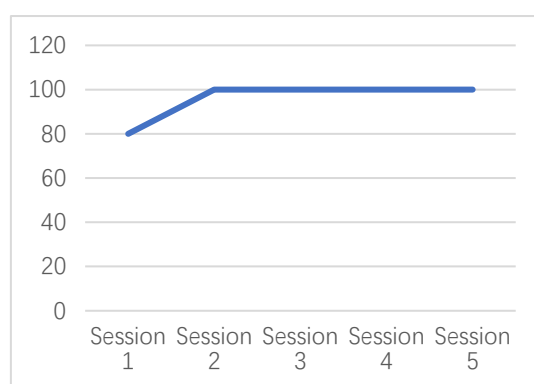


Table 8.1

Topics for individual sessions, along with Dan’s Session-WTCC score for each session

SCOLT-WTCC	Topics/contents	Session-WTCC
Session 1	Self-introduction	80
Session 2	Picture description	100
Session 3	Renting an apartment	100
Session 4	Differences between Chinese and Western food culture	100
Session 5	Extreme sports	100

8.3 Level 3 Dynamics of Idio-WTCC in Single Interactions

This section presents the dynamics of Dan’s Idio-WTCC on a per-second basis from the data analysis of the idiodynamic method used after each session except the first session. Analysis of the idiodynamic sessions shows that his Idio-WTCC mainly stayed at around +2 to +4, with barely any negative ratings throughout all idiodynamic sessions,

which meant Dan's WTCC entered a long-lasting attractor in the SCOLT-WTCC project. Despite the variations shown in the idiodynamic ratings, Dan repeatedly pointed out in StRIs that his Idio-WTCC was in fact more stable than the recorded data indicated because of the auto-zero function of the software (MacIntyre & Legatto, 2011). In DS3, Dan described his struggle to maintain the level of Idio-WTCC at +3 when using the rating software AVT2:

It [his Idio-WTCC] didn't really change throughout the lesson on the graph; it changed because you have to keep clicking in order for it to stay the same, otherwise, it goes back to zero. Sometimes trying to keep it on the yellow [which is +3] I accidentally clicked it too fast, and it goes to the red [which means +5] or the top. (DS3)

Another reason to explain the fluctuations of Idio-WTCC was his interpretation of the nature of his WTCC to refer simply to his own speaking, therefore, he did not give any ratings at those moments when the tutor was talking or playing videos for Dan's learning. Regarding the reasons for the stable and positive WTCC attractors, he repeatedly referred to his familiarity with his tutor and one-to-one situations. As he explained the factors in DS3:

She [the tutor] is an exceptional teacher, very personable, very easy to get along with...and in this context of a one-on-one lesson, I guess I'm used to speaking in this context, therefore I don't mind making mistakes so much. It would be different if I was, say, with a group of Chinese friends in a casual setting. (DS3)

To investigate the formation of the highly stable WTCC attractors in real-time, scenarios in two sessions have been selected to present Dan's Idio-WTCC dynamics. The reason for choosing Session 2 was that a negative rating only occurred in this session. For Session 4, Dan reported more desire to speak than in previous sessions. Therefore, the detailed data from these two idiodynamic sessions, including interactional excerpts, and their corresponding temporal measures of WTCC or corresponding graphs, will be displayed in the next section.

8.3.1 SCOLT-WTCC 2 “I was a little bit unwilling as I thought it was not necessary”

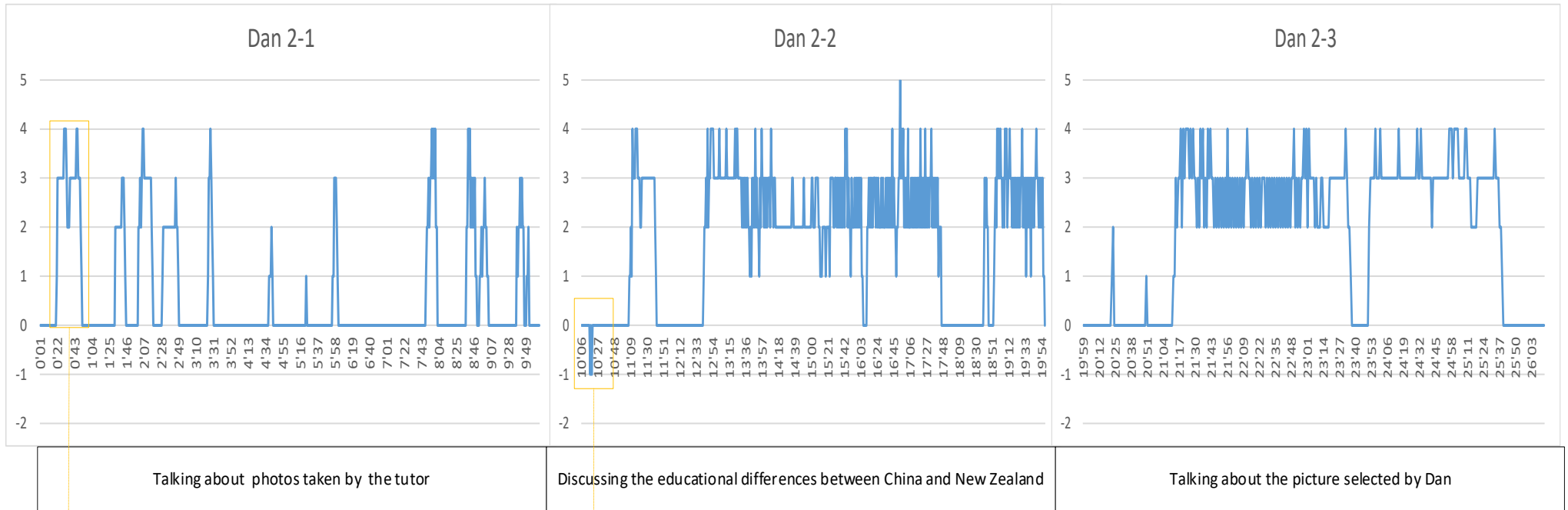
Session 2 was about picture descriptions, in which both the tutor and Dan brought pictures and talked about them. As can be seen in Figure 8.2, Dan’s Idio-WTCC mainly stayed in the positive regions, with only one negative evaluation appearing. At the beginning of this session, his Idio-WTCC rose when the tutor started to share her picture showing her as a volunteer teacher. Despite a series of pauses due to struggling to figure out the word 支教 (voluntary teaching in mostly remote/rural areas), the WTCC attractor did not diminish. In DS2, he attributed his high WTCC to a strong desire to know the meaning of the word:

On the PowerPoint, it showed the word zhi jiao [支教: voluntary teaching in mostly remote/rural areas], I hadn’t seen this word before, so I asked what it meant. At the same time, I checked my phone translator, that’s why I was looking down, so I could be sure to understand the meaning. My willingness to communicate was high because I wanted to find out what zhi jiao [支教: voluntary teaching in mostly remote/rural areas] meant, and I didn’t mind asking. (DS2)

His ignorance of the word for voluntary teaching did not limit his intention to communicate but prompted him to find out the meaning by asking his teacher and searching for it on his phone. Meanwhile, his curiosity about the topic of voluntary teaching also kindled his Idio-WTCC. This can be observed from his performance of consistently asking questions about Chaonan’s voluntary teaching in the recordings of the session. During the first 10 minutes of the session, which they spent discussing the photos brought by the tutor, 26 out of the 37 questions were asked by Dan.

Figure 8.2

Case Dan idiodynamic ratings in SCOLT-WTCC 2



Dan: showed interest in the picture about “voluntary teaching”, tried to figure out the phrase “voluntary teaching”

Dan: unsure if the tutor was asking a question or making a statement; therefore, was hesitant to give response to the tutor’s talk.

Figure 8.3

The screenshot of Dan looking down and searching for the word 支教 (voluntary teaching in mostly remote/rural areas) on his phone, while Chaonan was carrying out the topic



This is an example of Dan taking the lead in managing the conversation by asking questions and probing for answers. In the excerpt in Table 8.2, Dan and Chaonan were discussing the students she had taught in her volunteer tutoring. Dan did not answer her question (Line 1) but asked another question (Line 2). However, Chaonan did not understand what the question meant. Then Dan reformed his question (Line 4), and the tutor recast the part of the question, confirming it (Line 5). Finally, Dan correctly posed the question about whether his tutor would participate in the voluntary teaching program again (Line 6). Although his Idio-WTCC is indicated to be zero at this moment, this proved to be the first instance of his difficulty with the software:

I'm not sure why it's remained 0, perhaps I forgot to press the increase button, but my willingness to communicate at this moment I believe was the same as usual. (DS2)

Even though Dan expressed his slight disappointment with his performance, he still managed to ask his tutor if she wanted to do voluntary teaching again and posed questions three times. Thus, his WTCC kept the same positive level. He speculated that if his third attempt had been unsuccessful, his Idio-WTCC would have dropped, which means that he could tolerate a few hesitations if they were soon resolved. However, in

this situation, such issues in forming questioning sentences did not perturb his WTCC. More importantly, this type of behaviour of asking his tutor questions was driven by his curiosity and comfort in talking with her. As Dan said in the DS2:

The factor that influenced my willingness to communicate was just how at ease the teacher made me feel. This was the second lesson, we have already established and built up a rapport and the teacher is just simply a very likable person and easy to get along with. So at this point in the lesson, I was curious to ask how she felt when she was teaching, if she was nervous or not. (DS2)

Table 8.2

Extract of Dan's conversation (Time 4'55-5'19)

Turn	Original utterances and juxtaposed ratings	Translations
1. Chaonan	你猜他们 ⁰ 几年级? ⁰	Can you guess what grade they were?
2. Dan	⁰⁰ 想要 ⁰ 回来 ⁰ 了吗? ⁰	Want to come back?
3 Chaonan	啊 ⁰ 什么? ⁰	Ah? What?
4. Dan	哦 ⁰ 回来 ⁰ , 想要 ⁰ 有机会想要 ⁰⁰ 再 ⁰ 再来一次 ⁰ 这样的 ⁰ 做? ⁰	Oh, come back, want another chance, want another chance to do the same?
5. Chaonan	啊 ⁰ 再一次 ⁰ 支教	Ah! do the voluntary teaching again.
6. Dan	明年 ⁰ 明年 ⁰ 有一样的机会 ⁰ , 你还 想要 ⁰ 去吗? ⁰	Next year, next year if there is such an opportunity, do you still want to go?

Nevertheless, after the long-lasting attractor, Dan's mainly high Idio-WTCC was eventually perturbed due to failure to recognise the tutor's interrogative tone around 10'18 (see Table 8.3). Shortly after they finished talking about the tutor's voluntary teaching, she asked him in a questioning tone if he wanted to become a teacher in China. She added a question word three seconds later. Just in these three seconds, Dan's WTCC dropped. He explained the drop in DS2 by saying that he felt there was no need to give a response to the tutor's question in the beginning because he perceived this question as rhetorical. He also did not hear any question words:

At first, I wasn't sure if she was asking me a question or just making a statement. After the 3-second silence, it became obvious she was asking a question, or at least wanting a response from me. However, I thought this was more a rhetorical question and didn't really need an answer from me as she already knew the answer to it, so when I gave my response, I was a little bit unwilling as I thought it not necessary. It may just be the case because I am used to questions ending with ma, ne, dui ba etc., so not hearing one of those, I was not sure she

wanted me to respond. (DS2)

Table 8.3

Extract of Dan's conversation (Time 10'06 -10'20)

Turn	Original utterances and juxtaposed ratings	Translations
1. Chaonan	好 ⁰ 那这个 ⁰ 就是我的照片 ⁰ , 因为 嗯 ⁰ , 我想你以后 ⁰ 是要去中国 ⁰ , 是想要 ⁰ 去中国当英语 ⁰ 老师 ⁰⁰⁰ 吗? ⁻¹	Okay, so this is my picture, because um, I think you are going to China in the future, do you want to be an English teacher in China?
2. Dan	⁰ 对, 没错 ⁻¹	Yes, that's right.

However, soon after, his WTCC recovered and stayed positive until the end of this session.

8.3.2 SCOLT-WTCC 4 “Practice makes perfect”

The main focus of Session 4 was on discussing Chinese and Western foods, particularly about menus. As can be seen in Figure 8.4, variation in his self-ratings is observable, but again, from Dan's explanation in DS4, his Idio-WTCC ratings remained at +3 when he was talking. Rather than recalling specific moments, Dan generally explained that preparedness for the conversational topic contributed to his constant talking and, therefore, maintained his high WTCC.

Besides, Dan in DS4 compared his feelings and WTCC when the tutor introduced Chinese menus and when he shared a Western menu. Although he felt that he was not knowledgeable or comfortable engaging in the discussion in which the tutor introduced Chinese dishes, Dan felt willing to talk because of the novelty brought by Chinese dishes he had not heard of. He also mentioned that the tutor's gestures with onomatopoeic words to explain dishes caught his attention. He took the tutor's explanation of cucumber salad as an example by imitating the tutor's body language with the sounds of chopping cucumber. As he said

She's talking about 黄瓜 [cucumber], she's like [the tutor's gesture and voice] and I was like, man, she's so cool, So she used the body language, I think this adds to her coolness of her

personality. Likeableness. It also got my attention. (DS4)

Dan did most of the talking in the last activity talking about the Western menu. As a result, the frequency of +3 ratings dramatically increased. Compared to the first activity discussed above, Dan felt more familiar with this topic and more confident in talking due to his preparation. He had been asked to locate a menu which showed typical New Zealand food before Session 4. At that point, he had contacted me for a suggestion of this topic as he felt it a little bit difficult to talk about. Therefore, I pointed out to him that he could talk about the differences in eating culture between China and New Zealand. In the discussion of the Western menu, Dan was very proactive in talking to the tutor, which could be attributable to the practice and preparedness, as he said in DS4:

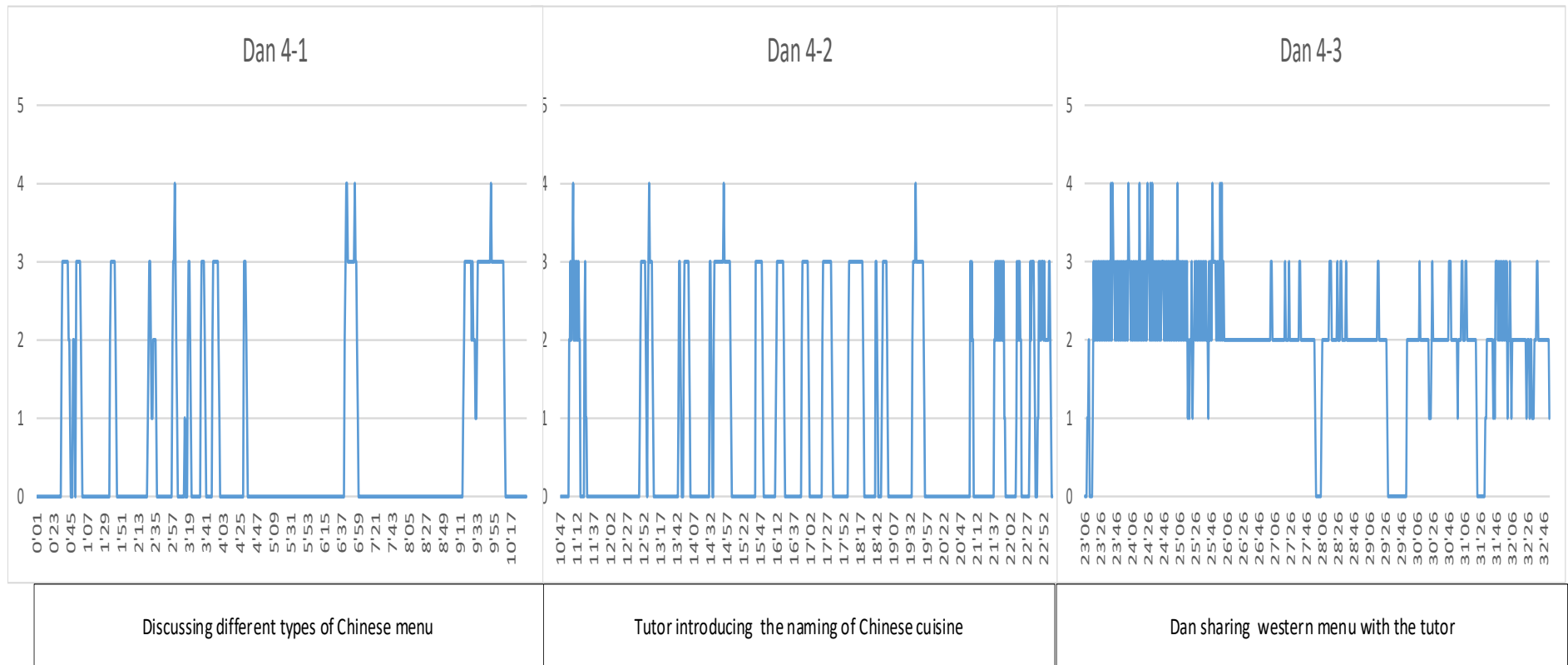
Practice makes perfect...The more familiar you are with something, the more comfortable you are doing it...it's essentially, I knew she's gonna ask those questions, so you basically knew what you are gonna talk about... So I felt more willing because although I did not say exactly what I was going to say... cos it's kind of I have been thinking about it for the afternoon. it was not spontaneous. (DS4)

In DS4, Dan thought, in general, that his ability to communicate would affect his WTCC. Interestingly, it seems that his dissatisfaction with his competence in speaking Chinese did not lower his Idio-WTCC, as that remained more or less at the same positive level. Throughout DS4, Dan repeatedly stressed that he lacked Chinese speaking ability, especially the ability to make the interactions smooth because he often paused to think word by word:

I am not very satisfied with my Chinese speaking. I kind of have a lot of room for improvement. And it's not very smooth, so when I speak, it's kind of like 你喜欢[you like], and I have to stop, think of the word 吃[to eat], think of the word stop, pause, 回锅肉吗? [twice-cooked pork?] (DS4)

Figure 8.4

Case Dan idiodynamic ratings in SCOLT-WTCC 4



There were many moments like the above when Dan had to stop and think about the word he would use to construct the sentence. However, his WTCC ratings in the graph and his remarks about them show that the ability to speak did not influence his WTCC. Further analysis of Dan's accounts in the interview indicates that he had developed language learning beliefs and principles about the requirement to talk in order to improve his Chinese competence:

I think I have kind of just got used to the idea that my Chinese isn't very good I am gonna make mistakes, I am gonna look like a fool, that's alright, so I want to I am still willing to communicate, but it does maybe affect your WTC... but because I also know that's the best way to improve, I probably will still try and say it. so, I feel my willingness is kind of more or less the same. (DS4)

The above passage points out the importance of rational thinking in facing the instinct of unwillingness to communicate. Dan further explained how his WTCC changed as a result of his slow thinking.

If you don't know something, you don't want to do it badly and that might maybe for a split second stop you from talking and then you realise "hang on, this is a lesson... your first instinct is, kind of I guess, you know, not speaking and your second instinct is, well hang on, this is a lesson, you are trying to improve, the best way to improve is to practice, so you should speak. (DS4)

The first and second instincts could be identified as thinking fast and thinking slowly (Kaufman,2016; Macintyre, 2020). Dan developed a rational system to generate WTCC as an intention to communicate when an opportunity arose despite his initial unwillingness to speak.

8.4 Tutor's and Learner's Perceptions of Dan's WTCC: Aligning or Diverging

Thus far, this chapter has analysed Dan's own ratings of his WTCC using two different instruments (Session-WTCC scale and idiodynamic method). In this section, the tutor's perceptions of Dan's Idio-WTCC will be compared with those of Dan.

8.4.1 SCOLT-WTCC 2 “He kept asking questions”

In general, Chaonan recorded mostly positive ratings with sporadic negative ratings of Dan’s WTCC throughout the session. In the later StRI, she explained that her criterion for the ratings was based on his performance involving frequently initiating the questions, actively responding to her, and engaging in the discussions. When asked about her feelings about the whole session, Chaonan blamed herself for talking too much in response to Dan’s questions. On the other hand, she considered the high frequency of his questions indicated a strong desire to know about Chinese education due to his plans to teach English in China soon. As she said:

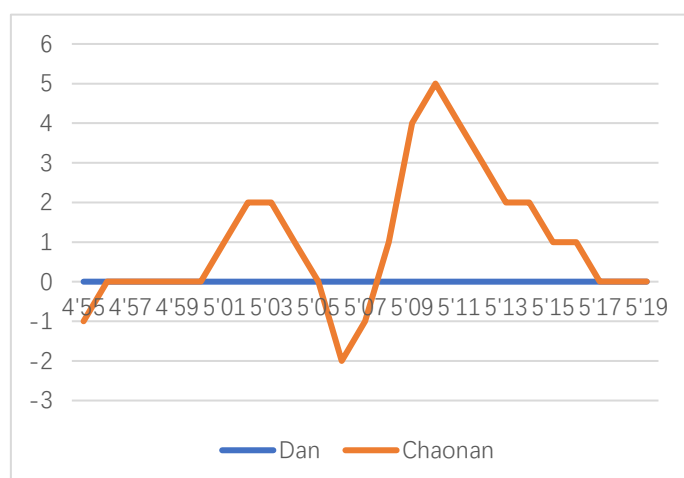
The student only had the opportunity to ask questions because I talked too much when I was sharing photos...I felt that I kept talking and he kept asking me questions. This could be related to the fact that he is going to China soon. Thus I think his WTCC was relatively high.

我在分享照片的时候说得太多，学生就只有提问的机会...我的感受就是我一直在说，他一直在问问题。当然这也可能和他要去中国工作有关吧。所以我会判定他其实交际意愿比较高。(CS2)

However, when asked about the negative ratings, she said that these occurred when Dan did not respond to her questions. Therefore, she perceived that he might not want to talk or not understand the questions she asked. She recalled several moments when she felt slightly embarrassed when he did not respond to her questions. Taking the extract in Table 8.2 as an example, Chaonan asked Dan to guess what grade the students were in at her voluntary teaching class, he did not answer it but asked another question instead. Thus, Chaonan’s assessment of his Idio-WTCC in that period accordingly showed negative ratings, see Figure 8.5, unlike Dan’s positive Idio-WTCC (Dan insisted that the ratings of WTCC should have remained at the same positive level here). Nevertheless, four seconds later, Chaonan increased her ratings of his Idio-WTCC to +5 because Dan continued the interaction in his own way.

Figure 8.5

Idio-WTCC ratings for Dan and Chaonan ratings of Dan in the 4'55-5'19 of SCOLT-WTCC 2 conversation



8.4.2 SCOLT-WTCC 4 “He narrated in paragraphs”

In this session, Chaonan also recorded mostly positive ratings, with sporadic negative ratings of Dan’s WTCC throughout the session. In particular, when Dan was sharing a Western menu, Idio-WTCC synchrony between the tutor’s ratings and Dan’s ratings existed to a great extent (See Figure 8.6). At the moment, Dan experienced a strong desire to share what he had prepared; the tutor had the same perception of his state of WTCC. The reasons Chaonan gave for assuming that he had high WTCC at this point were similar to those given by Dan himself, that it was due to his preparedness.

More importantly, Chaonan said in StRI that Dan’s performance in narrating was beyond her expectation, as the task requirement was to ask him to share a Western menu and the featured New Zealand dishes. From Chaonan’s viewpoint, she did not expect he would be able to extend the topic and do most of the talking at this moment.

Because he was the one talking all the time here, and he narrated in paragraphs...I didn’t expect him to say that much.

因为这里一直是他在说，而且他是以一种语段来叙述...我没有想过他会说那么多 (CS4)

Chaonan further analysed the reasons for his high Idio-WTCC, speculating that Dan’s

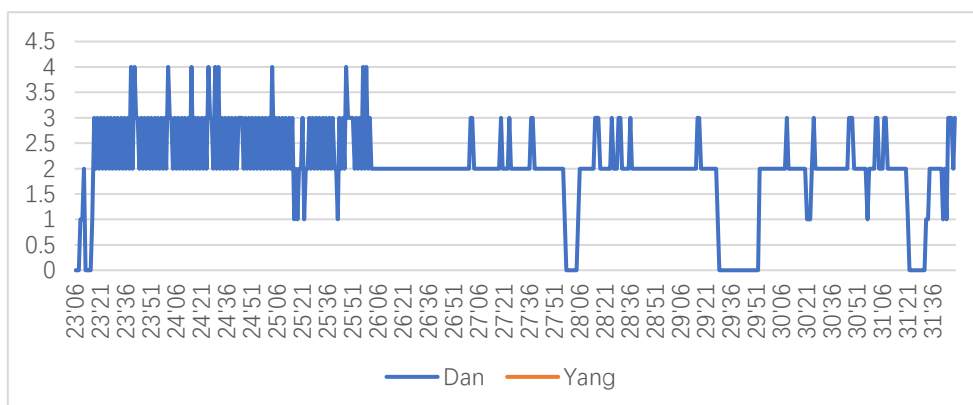
previous experience in China might have impacted his intention to talk. In the session, he related two personal stories about eating with Chinese people when he was in China as evidence to support the difference in eating habits between the two countries. As Chaonan mentioned in CS4:

He was very impressed by what he had experienced [in China], because it was completely different from what he had encountered in New Zealand since he was a child. So it was a big contrast in his mind, so when he was in the class...then this task of talking about the menu might have provided him with an opportunity to talk about it because it was precisely the same as his previous experience.

他经历的那件事给他印象非常深刻，因为这是跟他从小在新西兰的所遇到的是完全不一样的。所以就是在他的心里面给他一个很大的反差了，所以刚好在上课的时候...忽然这个点菜吃饭的跟他刚好以前的经历是完全一样的，可能就有了一个点可以让他去讲，把他之前的那些全部都说出来。(CS4)

Figure 8.6

Idio-WTCC ratings for Dan and Chaonan ratings of Dan in the SCOLT-WTCC 4 conversation



8.5 Summary

Generally, Dan could be seen as a student with a relatively stable and medium high level of WTCC in his view, and that of his tutor. On the macro level, Dan was generally holistic in evaluating himself as highly eager to talk over the five sessions mainly due to building a rapport with the tutor. Dan's Idio-WTCC ratings at a micro level displayed fluctuations mainly from 0 to +3. But from his account, his Idio-WTCC stayed more or

less at the same level, in response to variables such as his relationship with the tutor, the tutor's vivid body language, curiosity about the topic, task preparation, and the novelty of the topic at separate moments. It should be noted that Dan did not regard his WTCC as subject to variation because his belief in the high value of talking in order to learn generated a strong desire to talk. However, even though his WTCC were in the preferred region, perturbations such as a failure to interpret the tutor's question would decrease it, but preparation for the task would boost it.

In tutor WTCC ratings on Dan, the main criterion was based on Dan's performance. The tutor considered him a talkative person with a high Chinese speaking level, as he often initiated questions, and actively discussed with her. In general, Chaonan's ratings also remained high. However, in some situations where there was no response to questions from Dan, Chaonan took it as a sign of Dan's unwillingness to communicate.

Chapter 9 Discussion

The findings of this study, in chapters 5 to 8, have demonstrated the complexity and dynamics of learners' WTCC in SCOLT-WTCC. Those provide insights into the reasons for the fluctuations of WTCC, as influenced by situational, affective, linguistic, physiological, and technological factors. By the repeated application of the research instruments over different timescales of SCOLT-WTCC, including from session to session, every five minutes, and on a per-second basis, the study has revealed that such change in learners' WTCC is truly 'dynamic', as informed by the Complex Dynamic Systems Theory (CDST). Learners' narrative accounts and their interactive excerpts derived from session recordings were combined to capture in-depth insights into the nature of the complexity in WTCC, which not only displayed how their WTCC changed during communication, but also reflected how the interactions among individual, situational, and technological dimensions led to a change in their intention. Furthermore, this study has displayed the differences or similarities between tutors' and learners' perceptions of learners' WTC in SCOLT-WTCC to deepen the understanding of the unobservable nature of L2 WTC.

This chapter discusses the key findings across the four cases regarding each of the research questions. Sections 9.1 and 9.2 examine RQ1: *What are the general WTCC profiles of learners over the SCOLT program? How does learners' WTCC change and fluctuate during communication across different timescales?* Section 9.1 focuses on changes in WTCC throughout SCOLT-WTCC, drawing on learners' Session-WTCC ratings and narrative accounts. Section 9.2 addresses fluctuations in WTCC at a particular moment during communication and the combination of factors accounting for the change within the session.

Section 9.3 addresses RQ2: *How can WTCC be effectively measured/recorded over an attenuated period and in multiple encounters?* This section illustrates the interrelated

nature of timescales with respect to changes in learners' WTCC, discusses the value of the idiodynamic method and the experience sampling method (ESM) in recording the moments that create the sense of being (un)willing to communicate, and presents the advantages and disadvantages when using these methods from learners' point of views.

Section 9.4 examines the (mis)match of tutors' and learners' perceptions in terms of learners' WTCC. Section 9.5 discusses the revised definition of learners' WTCC that has emerged in this study and calls for the inclusion of being a listener in contributing to the willingness to communicate and to ensure that this aspect is fully recognized in WTC research.

9.1 Changes in WTCC over the SCOLT-WTCC Program

The purpose of this section is to discuss the findings in relation to changes in learners' WTCC throughout the SCOLT-WTCC project. The findings draw on a combination of video-audio materials, interviews, and their Session-WTCC ratings collected after each session in time throughout SCOLT-WTCC.

9.1.1 Increased familiarity with the tutors

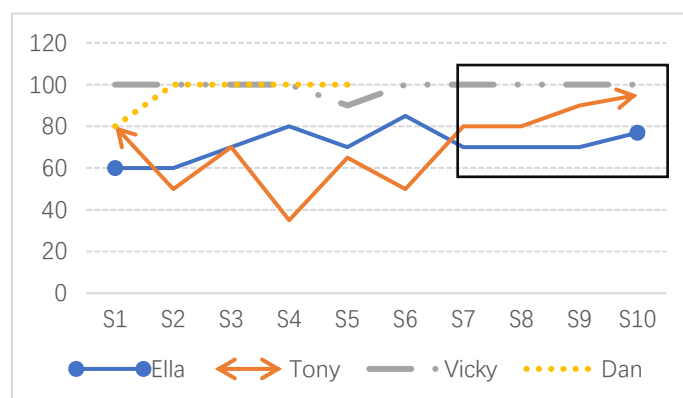
The important role of familiarisation with the tutors in their WTCC throughout the SCOLT-WTCC program was reflected in the fact that all the learners commented that their relationship with the paired tutors gradually became close, and they felt more comfortable communicating with them. A negotiated curriculum was employed in the current study which required the tutors and the learners to negotiate with each other in terms of the learning content. The requirement of the negotiated curriculum to find out more about the learners may have speeded tutors' ability to develop affinity. However, the students seemed unready or unsure of how to contribute to the negotiation of the curriculum initially. At the beginning of the SCOLT-WTCC project, of the four participants, only Vicky identified her preferences by topics in Session 1, partly because

Tutor Yating had learned from the previous series with Ella and she prepared topics in advance in case Vicky was not ready to express her learning needs. The other three learners, perhaps because they were new to the context or accustomed to traditional classroom settings in which learning content or topics to be taught are normally prescribed, and they might not be familiar with the negotiated curriculum and thus chose to rely on the teachers for content or methods of instruction; this increased their tutors' difficulty in preparing suitable learning activities. In addition, the learners were not informed that they would need to share their topic preferences for the SCOLT-WTCC in Session 1, and so it may have been hard for them to come up some ideas about conversation content.

In such cases, mutual understanding between the parties had not yet been established. Therefore, more variability was found in Session-WTCC at the beginning of the program (see Figure 9.1) as their Session-WTCC was still in the process of development and more strongly susceptible to variations at the beginning.

Figure 9.1

Four learners' Session-WTCC over the SCOLT-WTCC project



In this study, the negotiation of curriculum was a continuing process rather than a one-off activity. The tutors constantly consulted with their learners before teaching, during sessions, or between sessions to identify learners' expectations, design activities, and make timely adjustments to better cater for their emerging needs. During this process,

the tutor-learner rapport was gradually built on the foundations of both co-constructing the SCOLT-WTCC, with the increasing understanding of each other that afforded, and the contact between sessions. Ella and Vicky reported that Tutor Yating's active contact with them on WeChat to negotiate conversation topics and class time, and to answer questions relevant to homework helped them mentally prepare for the following sessions. Dan attributed his stably high Session-WTCC to a good relationship with his tutor after Session 1. Tony was happy that Tutor Jiyao increased the time for their small talk, through which he could develop and strengthen their interpersonal relationship, as this type of communication resembled conversation in daily life.

With progressive familiarisation with the tutors, learners in this study concomitantly grew more accustomed to their SCOLT-WTCC sessions, which contributed to their enthusiasm to attend the sessions and increased their Session-WTCC which stabilised from Session 7, even for Ella and Tony, whose ratings had previously fluctuated, as shown in Figure 9.1. This finding appears consistent with previous studies (Chang, 2018; Liu & Littlewood, 1997) that perceptions of teacher-student compatibility or student-teacher rapport significantly influenced the WTC of English learners. However, tracing the process of tutor-learner rapport building is an important contribution of this study illustrating how this process influences learners' WTCC over time. In my study, I demonstrated learners' adaptation to the one-to-one conversation-like setting and dynamics of the SCOLT-WTCC program. Along with the initial unfamiliarity and eventual ease of their relationship with the tutors and context, learners' WTCC underwent a transition from an initial period of variability to relative stability towards the end. These findings confirmed Verspoor's (2014) considerations on initial conditions, which means there is a necessity of taking into account initial conditions when measuring the dynamics of a system, WTCC in this case, over time. Once learners felt familiar and comfortable with their tutors, became accustomed to how the sessions were organised, and acknowledged their progress over time, their Session-WTCC appeared to settle into a state of relative stability, similar to what in CDST terms is

defined as an attractor state (Hiver, 2014).

9.1.2 The increased perceived value of the SCOLT-WTCC sessions

The impression of the value of SCOLT-WTCC for one's learning appears to have played a crucial role in positive shifts of WTCC over the whole SCOLT program lasting ten or five sessions. This one-to-one context was very different from traditional classrooms. The students in this study had a limited commitment of just ten or five sessions over a short period. They were not subject to external assessment, so they seldom experienced external pressure, such as exams. They were adult learners who had made their own choice to participate and could negotiate their own curriculum, so they had more chance and autonomy to explore their interests and needs in learning Chinese. Despite three of the learners not participating in the negotiation of a curriculum for themselves at the beginning of SCOLT-WTCC, they gradually realised their needs and interests in manifold situations over time and actively negotiated with their tutors. For example, Ella in Session 6 told Yating that she had been busy with a project related to the Chinese spring festival, and then she expressed her need to discuss festival topics. Tony and Dan told me of their interests in some topics and wanted me to inform their tutors. Even though Vicky had participated at the beginning, she recognised that it was an ongoing process and expressed her desire to discuss a healthy lifestyle after Session 8, in which they had just finished the four topics of discussion she had chosen in Session 1. Alongside their intention and ongoing contribution to the negotiation of the sessions, learners became increasingly motivated to engage with their co-constructed conversations and put effort into their learning as these topics, which they had chosen, were based on their needs and values.

More importantly, learners in this study gradually internalised the value of the SCOLT-WTCC characteristics. The flexibility of the negotiated curriculum enabled the conversation to cater for learners' needs, levels, interests, and values (*learner fit*, see

Section 3.3.1.3). In the one-to-one personalised learning environment, learners not only had ample opportunities to extend interactions with the tutors but also applied what they learned to authentic communication. Sometimes their attention could be directed to specific linguistic aspects during interaction (*meaning making and language potential*, see Section 3.3.1.3). For example, Tony mentioned that vocabulary and grammar were the core factors during his previous traditional teacher-dominated Chinese learning classes, whereas in the SCOLT setting, as he said, “this is a more fluid lesson...it definitely made me more interested in speaking Chinese...because you are talking about your real-life situation...it has more context and meaning” (TS10). Tony’s statement revealed that the sessions meet the criterion of *authenticity* (see Section 3.3.1.3) in evaluating co-constructed videoconferencing activities. All these factors, in line with focusing on individual learners’ needs and values, the importance of appropriateness and relevance in the co-constructed, co-development of online activities that have been signalled in previous research (Chapelle, 2001; White et al., 2020), suggest the SCOLT setting, as a supplement to perhaps formal study, is an effective one. At the end of the project, this was acknowledged by all learners who explicitly expressed their feelings that they did not want to end their SCOLT involvement.

Once they were aware of the value and usefulness of the SCOLT-WTCC sessions, the learners in this study became increasingly willing to participate in the sessions and express their ideas and thoughts. This is in line with Zhang’s (2018) finding that students preferred activities that could provoke meaningful communication and Wolf’s (2013) finding that students perceived textbook-assigned topics as less interesting than self-selected topics. Hence, tutors need to raise learners’ awareness of the value of each activity, further promoting learners’ WTCC.

9.1.3 Sustained WTCC throughout the SCOLT-WTCC project

In this study, two participants, Vicky and Dan, described a relatively steady and high willingness to communicate throughout the project, scoring 100 on all Session-WTCC ratings except one session (Dan scored 90 on Session 1, and Vicky scored 90 on Session 5). For both learners, building a rapport with their tutors and getting accustomed to the SCOLT-WTCC project were key factors in their high WTCC, as mentioned earlier. Moreover, in both cases, high levels of WTCC were found to be related to their motivation to speak Chinese fluently. MacIntyre et al. (1998) considered motivations (in Layer IV of their model) as comparatively stable and enduring factors in affecting WTC. Significant correlations were found between levels of motivation and WTC in previous studies (MacIntyre et al., 2003b; Peng, 2007; Yashima, 2012).

In this study, emerging evidence from the dataset indicated that the *ideal self* exerted a powerful influence in sustaining their high WTCC and promoting their Chinese use during communications, consistent with previous studies (Munezane, 2015; Peng, 2012; Zhou, 2022) that found a link between L2 WTC and *ideal self*. The term *ideal self*, adopted from Dörnyei's (2005, 2009b) L2 Motivational Self System (L2MSS), refers to learners' different images concerning their future possible selves. Vicky's vision concerned a desired future of becoming a fluent Chinese speaker able to teach Chinese people how to make perfume and spirits and also to do business with them. This strong motivation functioned as a powerful catalyst for her WTCC. On the other hand, the upcoming job as an English teacher in China was foregrounded as a motivational factor for Dan. This ideal self that was based on a wish to integrate with the Chinese community worked as a future self-guide in encouraging him to explore and grasp the opportunity which offered possibilities for him to move towards what he desired to become. Besides their visions of becoming fluent Chinese speakers or integrating into Chinese communities, both expressed their intrinsic interest in anything about Chinese, including Chinese culture, food, perceived change in cities, and people etc., and these

all triggered them to invest time and effort into learning and using Chinese.

9.2 Changes in WTCC during Communication

This section aims to answer how learners' WTCC changes and fluctuates during L2 communication. Tony and Ella's WTCC showed fluctuations from conversation to conversation within a single session, and from moment to moment on a per-second basis, whereas Vicky and Dan's WTCC remained consistently high, with Vicky's Idio-WTCC remaining at +5 and Dan's at +3. This suggests that WTCC during synchronous one-to-one online communication is highly unpredictable and dynamic at interpersonal as well as individual levels.

9.2.1 Self-perceived communicative competence (SPCC)

Although MacIntyre et al. (1998) claimed that communicative competence, including various dimensions of competence (e.g., linguistic knowledge or the ability to understand discourse), had a strong influence on an individual's WTC, what the study highlighted was that learners' perceptions about their communicative competence may be more influential than evidence of their actual L2 proficiency. In this study, Vicky was very confident about her communicative competence, which triggered her proportionately higher level of willingness to engage in learning activities at any particular moment. Even though at times she had difficulties, Vicky's relatively high SPCC helped her to find another way to express her opinions effectively. In contrast, Ella's negative estimations of her competence involved many aspects, such as pronunciation, grammar structure, and vocabulary, which often held her back from communication. Furthermore, Ella's reflections suggested that a pessimistic perception of one's communicative competence might result in anxiety and a decrease in WTCC. It appears that her aroused anxiety worked in conjunction with her lower estimation of communicative competence to inhibit her WTCC. This suggests a close link between SPCC and learners' WTCC, consistent with previous work considering SPCC as a key

precursor to using the L2 with confidence (Baker & MacIntyre, 2000; Ghonsooly et al., 2012; MacIntyre et al., 2001).

Evidence emerged from the data showing that learners' SPCC was not static, rather it changed according to interaction with other factors in shaping learners' intention to engage in conversation. In my study, an interesting example from Ella's case could demonstrate this well: Ella's "weird moment" in Sessions 6 and 10 showed that while she was restricted by her perception of needing specific cognates at first, growing involvement in the desire to make meaning brought about an awareness of her ability to find another way to express herself, which then translated into higher WTCC. As she continued to experiment with various ways to express herself, Ella accordingly felt momentarily much more confident, which made her realise that she was capable of effectively conversing with others not relying solely on linguistic facets. This suggests that participants' SPCC and active involvement have a reciprocal interaction with one another, thereby significantly affecting their WTCC.

MacIntyre et al. (1998) proposed "state perceived competence" which "refers to the feeling that one has the capacity to communicate effectively at a particular moment" (p. 549). This suggests that SPCC is not a trait variable affecting WTC but rather responds to situational constraints. Previous studies (Cameron, 2020; Cao, 2009; Ducker, 2022; Kang, 2005; Yue, 2016) provide evidence that topic interest and familiarity tended to be helpful in constructing the learner's more positive perception towards their communicative competence, which then led to them being more communicatively forthcoming. All participants in this study reported that relevant topic knowledge developed from individuals' previous living experiences played a crucial role in enhancing their perception of communicative competence and boosting their WTCC during the SCOLT sessions.

9.2.2 Emotions

Emotions emerged as an important factor in the collected accounts from the learners. All learners reported that certain kinds of emerging emotions, positive and negative, influenced the dynamic trajectory of communicative intentions within a specific communicative instance. Four kinds of emotions were found to exert influence on learners' WTCC, including the arousal of anxiety, a sense of frustration, a feeling of enjoyment, and a sense of achievement, each of which will be discussed in this section.

Although the arousal of anxiety is a major factor significantly affecting learners' WTCC (Dewaele & Pavelescu, 2021; Dewaele & Thirtle, 2009; Gregersen, 2003; Liu, 2006; Peng, 2014), interestingly, only Ella in my study reported her experience of anxiety during communication. Through investigation of Ella's communicative events, WTCC ratings and her perceptions accounting for these changes over time, different forms and representations of anxiety emerged, which influenced her L2 learning, WTCC and L2 production in various ways. These different forms of anxiety included worries about making mistakes, a feeling of uncertainty, forgetting things to say, the incidence of getting stuck, nervousness, being concerned about the tutor's thinking, and pressure to perform well. Although anxiety appeared to work in inhibiting Ella's WTCC in real communication situations, anxious feelings sometimes positively affected her concentration and motivated her to invest more effort in preparing for those situations. For example, after experiencing anxiety at the opening of several sessions, she finally overcame her anxiety in Session 7 and initiated greetings to her tutor, which seems to support Dörnyei's suggestion that because of its complex nature, "anxiety may not be a purely debilitating factor" (2005, p. 198). As has been discussed above, the complex nature of anxiety also manifested itself in interactions with how Ella perceived her communicative competence dynamically and gave rise to different communicative behaviours and WTCC.

Based on Tony's reports, a sense of frustration was a factor in diminishing his WTCC during communication. This sense of frustration was mainly experienced when feeling unable to keep up with the content of the task or the tutor's overly long explanations leading him to feel overwhelmed and liable to make constant mistakes. This led to a progressive loss of communicative intention, corroborating qualitative findings of the negative impact of feelings such as frustration and embarrassment on learners' WTC (Yue, 2016). For example, unlike Ella's intense apprehension and fear of making mistakes, Tony was not worried about being wrong. However, constantly making mistakes would make him feel disappointed, frustrated, and even compelled, but nevertheless unwilling, to engage in conversations. As White et al. (2020) suggest, learners in a one-to-one setting have to take an implicit responsibility for their communication and keep up the conversation as only one interlocutor is present in this setting. In this study, when Tony constantly made mistakes but *had to* respond to the tutor's questions, this implicit responsibility became intensified, causing him to feel discomfort and even boredom with the conversation, which negatively affected his self-esteem and lowered his WTCC.

All learners reported that a feeling of enjoyment had a strong impact on increasing their WTCC during the dialogue. Among the factors contributing to the emergence of learners' enjoyment of the task and session, the topic interest, the perceived relevance of the topic, the perceived topic difficulty, and tutors' support were the most often-mentioned determinants. As mentioned earlier, a negotiated curriculum was adopted in the SCOLT-WTCC setting with an emphasis on being learner-centred, meaning the sessions were personalised according to learner interests, language proficiency, current personal needs, and preferred learning approaches. The provision of varied topics that interested them appeared key to often evoking learners' enjoyment. Besides, when they found the topics were beneficial to meet their learning goals and perceived them as enjoyable, they displayed a tendency to engage in the activity more eagerly. For example, Dan was enthusiastic about China's education system, and this aligned with

his need to know more about China as he was going to be an English teacher in China soon. The relevance of the topic to his needs evoked his enjoyment and interest, which was confirmed by his behaviour in constantly asking the tutor questions related to China's education.

In addition, when the activity occurred in the learners' Zone of Proximal Development (ZPD), it meant that there was a balance between the learners' actual ability to accomplish it and the sense of challenge posed by the dialogue. This appropriate sense of challenge was vital for the communicative activity to be inherently enjoyable and pleasurable. For example, Vicky and Ella were happy with some vocabulary associated with the topics learned at the beginning of the session, and then applied them to the later discussion as these important words and phrases could help stretch their language ability. For Vicky, being able to apply what she had just learned into use boosted her sense of achievement, whereas, for Ella, it eased to some extent her anxiety and fostered intrinsic enjoyment of the activity with the aid of learned vocabulary. This indicates the importance of acknowledging a learner's ZPD when organising a session.

The learners' sense of achievement and WTCC were found to have reciprocal interaction with one another in this study. According to Pekrun and Linnenbrink-Garcia (2012), a sense of achievement and accomplishment is an outcome-related emotion that is associated with completing a specific learning activity or performing well in class. In most cases, the feeling of accomplishment experienced by learners during the session was often related to self- and tutor-recognition of their performance and a sense of contribution to the course. Tony mentioned that his sense of personal achievement was provoked by simply suggesting using the phrase *get up* rather than *wake up* at one point during Session 10, which then momentarily altered the state of tiredness he had been carrying from work since the beginning of the session and directly increased his WTCC. In Vicky's case, her high WTCC was sustained not only by a sporadic feeling of accomplishment but rather by a sense of the realisation of her progress over time. This

was confirmed by her request for her tutor's evaluation of her Chinese proficiency in the last session. This could be related to the feeling of being paid off for her effort in improving her Chinese, as she repeatedly mentioned the realisation of being able to use the L2.

Based on learners' reports, a sense of accomplishment could also be experienced in conjunction with a sense of contribution to a single conversation or session. Although learners had not initially expressed their needs or preferences in certain topics, they started to realise their role in co-contributing to the SCOLT-WTCC sessions as they were allowed room for continuing negotiation of the curriculum. This level of high flexibility in conversation-like sessions increased learners' opportunities to voice their opinions. They were able to make decisions contingently on specific situations and take ownership of their learning back from tutors. Learners' fulfilment of conveying and understanding a certain message arose when they felt that they could share something with their tutors and contribute to the conversations, and further raised their awareness of the value of engaging in the conversation. An example of the feeling of purpose associated with active participation and initiative-taking during a conversation activity was provided by Vicky (see Figure 7.3) where she extended a film topic by sharing information about the director's life in New Zealand. In addition to acquiring information from the tutor, she also reported a desire to share information and contribute to their sessions.

These findings have important implications for developing the relationship between emotions and WTC. Previous research has long focused on the impact of learners' anxiety on learners' WTC. Although there have been increasing studies into how different emotions and their combination exert a significant effect on learners' communicative intention (Dewaele & Pavelescu, 2021; Khajavy et al., 2018), not enough attention has been paid to types of emotions other than anxiety. Moreover, a new understanding is emerging that overcoming anxiety does not guarantee the

emergence of positive emotions that eventually translate to greater WTC (Dewaele & Pavelescu, 2021). Moreover, this study also supported the view that emotions were a part of a dynamic system, displaying fluctuations in the system. This is because emotions were interacting continuously with each other and other variables, including conversation topics, SPCC, and linguistic facets. Thus, WTC emerged dynamically in interactions between the variables as the direction of the emotions kept evolving.

In addition, the analyses confirmed the view that learners' emotions were linked to their personalities (Cao, 2011). Learners' different personalities meant their emotions had very different shades and flavours, affecting their WTCC (Dewaele & Pavelescu, 2021). Given Tony's more extroverted personality, he loved the adrenalin of casual chat with more spontaneous conversation turns which could move in unpredictable directions, whereas relatively introverted Ella favoured the tasks that did not particularly leave open possibilities and was paralysed at discussions full of uncertainty. Despite experiencing considerable anxiety when speaking Chinese in early session openings, Ella sometimes experienced enjoyment and excitement at the same time during the openings of the sessions as those responses were triggered by her strong sense of agency in language learning and use, suggesting that the experience of both emotions overlapped to a certain extent and no single emotions played an exclusive role in learners' WTCC (Dewaele & Pavelescu, 2021; Li et al., 2020).

9.2.3 Topic-related characteristics

Among the situational characteristics related to WTC, topic-related factors were of vital importance. As suggested by Yashima et al. (2016), "topic was by far the most frequently mentioned reason why the students could or could not participate in the discussion" (p. 120). Various topic-related factors underlying learners' WTCC were explored in this study, including topic interest, topic familiarity, topic usefulness, and task difficulty. It has been widely acknowledged that students are more likely to

communicate on topics they perceive to be interesting, familiar, and meaningful (Cao, 2013; Kang, 2005; Mystkowska-Wiertelak & Pawlak, 2017; Yashima et al., 2016).

Topic interest was a factor frequently cited by all learners in boosting their WTCC during the session. Interest sparked attention and curiosity, thus consisting of cognitive and emotional components, consistent with Renninger and Hidi (2002) who considered it as an emotional and cognitive stimulus. This study found that topic interest evoked not only the learners' desire to acquire information but also their desire to share information about the topic, supporting Dörnyei's (2009c) assertion that interest is a paramount motivator for participation. For example, the topic of voluntary teaching triggered Dan's desire to know more about Chinese education from his tutor, leading him to keep asking questions based on the tutor's educational background and experience. In addition to accessing further information, learners' desire to share topic-relevant knowledge was frequently mentioned as promoting their WTCC. In the last sessions, Ella and Tony were very excited to share something relevant to themselves or their lives and talked more than their tutors in the final session. Such interest may be enhanced if relevance to their background is promoted by prior knowledge. However, a lack of interest in situations, even though sometimes short-lived, could hold learners back from communication. For example, Tony was reluctant to talk about pandas in Session 6 on the topic of travelling. Although the topics were based on learners' needs or preferences, tutors might have different understandings and perceptions of what those needs or preferences were, and there was also an infinite variety of sub-topics that emerged during conversations, which might not cater for learners' interests. Sometimes, tutors might mistakenly assume learners' interest in a particular topic, resulting in a decrease in learners' WTCC.

The role of topical knowledge in WTCC was also frequently mentioned by learners in this study. More importantly, for enhancing their WTCC, learners mentioned those topics that enabled them to have ideas to talk about, including reflecting on what

happens in real life, allowing them to draw upon their personal experiences, and requiring a genuine exchange of information. As proposed by MacIntyre et al. (1998), “the topic of the communication will significantly affect the ease of language use: Topical expertise and the familiarity with a certain register will boost one’s linguistic self-confidence, whereas a lack of these may inhibit even a generally confident speaker” (p.554). Ducker (2020) considered topic knowledge to be a link between interest and having something to say, which means being interested in a topic or activity is necessary but not sufficient for participation. A clear example was provided by Ella where she was very interested in the topic of the possible ending of the movie *Titanic*. However, a lack of detailed knowledge prevented her from making speculations about the characters’ lives, which curtailed her WTCC. In addition, preparation for the topics was noted as increasing WTCC. Whereas learners sometimes appreciated the novelty of topics without any preparation and felt excitement (e.g., Vicky’s advice on the tutor’s daily schedule, see Section 7.4.3), they generally considered the preparation for the topics to be an advantage for their WTCC. For example, Dan attributed his high WTCC when sharing a Western menu to his preparation. Ella also mentioned that some vocabulary prepared for making a trip engendered her strong desire to share.

9.2.4 Tutors’ agentic support learners’ personalised learning

All learners repeatedly highlighted their tutor role in their language learning experiences in the SCOLT-WTCC project. As pointed out in Section 2.4.2, language teachers played a primary role in promoting or reducing the students’ WTCC. As mentioned in Section 9.1.1, the rapport established between tutors and learners could increase their familiarity with each other and help accustom learners to the tutors’ teaching styles and feel more confident to speak. Meanwhile, the rapport sometimes increased learners’ feeling of responsibility for engaging in the conversation and meeting teacher expectations. Therefore, learners’ communicative behaviour in some situations might be triggered by the responsibility to maintain interpersonal

relationships (Kang, 2005). For example, Tony recalled that his responses to the tutor's two overly long explanations in Session 6 did not correspond to his own desires. Although he felt bored and tired at that moment, he tried to politely change the topic by saying, "I understand," to make his teacher feel better.

Learners in this study held very positive impressions of their tutors and mentioned that their tutors positively affected their WTCC in many ways. Tutors' pedagogical and affective support was found to frequently exert an important influence on learners' WTCC during the session. Specifically, learners sometimes encountered difficulties in comprehending discourse, retrieving vocabulary, and expressing themselves, which might limit their WTCC arousal. At these moments, tutors' timely assistance could be extremely useful, confirming the findings of previous research (Cameron, 2020; Cao, 2009; Peng, 2014; Syed, 2016; Zarrinabadi, 2014) that teachers are vital in fostering learners' WTC. In the one-to-one "natural conversation" encounters, learners needed to offer and respond to a variety of topics on the spot. On the one hand, they had many chances to speak; on the other hand, they might feel stressed sometimes. In these circumstances, tutors' personalised guidance and feedback largely reduced pressure on learners. As Zhang (2018) suggested, teacher support could also be perceived based on teaching styles. However, the impact of tutors' teaching style on learners' WTCC was not only through providing support, but also through building a relaxed, interactive communication style during the session. For example, Dan was impressed by and encouraged to talk by his tutor's vivid teaching style when the tutor used hand gestures with the sounds of chopping cucumber to explain one Chinese dish. All learners shared their experience of making jokes with their tutors in a lively and pressure-free communicative atmosphere.

Tutors' decision-making on designing and planning learning activities to meet their learners' specific learning goals and needs was found to influence learners' WTCC. Learners in this study preferred activities that could provoke meaningful

communication and were relevant to their learning needs and goals. In contrast, when they perceived the activity as not useful or beneficial to their learning, they reported a tendency to be less willing to invest effort in it. The results of the study appear in line with Zhang (2018) who considers the perceived usefulness of activity as one of the factors shaping learners' WTCC. It is important to note that in this study the perceived value of activity did not influence WTCC in isolation. It contributed to changes in WTCC when combined with other factors, such as enjoyment, active involvement, and the tutors' support, showing the mutual interdependence and the interrelationship among all the variables. Moreover, the different values ascribed by learners to activities also appeared to influence their intention to speak. Tony underlined that small talk was seen as generally more useful for one's learning, as opposed to reviewing words, learning vocabulary in isolation, and teacher explanations. On the other hand, Ella highlighted the importance of reviewing vocabulary and grammar exercises to set a foundation for the later topic discussed during the session, but she expressed her reluctance and concerns about small talks at the beginning of the sessions.

Interestingly, students sometimes might not immediately realise the usefulness of an activity but recognise it near the end of the session. For example, in Session 2, Tony was initially reluctant to learn the words related to emotions and was passively involved in the following picture description; he could not perceive the importance of the task of learning vocabulary until his tutor brought up the topic of sharing a story about happiness and sadness. However, a lack of awareness of the usefulness of the activity lowered his WTCC at the moment when he was learning the words. This suggests that the actions the tutors have taken in supporting learners' development are the key - not simply the role of tutors but the decision they made to provide scaffolding and support to accommodate their needs through adapting their pedagogical approaches for learners. It would be valuable for teachers to consider the learning goals of each activity they design and intentionally introduce it to students, so as to increase awareness of the significance and usefulness of each activity and how it may help to cater for their needs

and achieve personal learning goals.

What is striking in this study is that perceived effort and investment displayed by tutors could contribute to promoting learners' WTCC at a specific point in time during the session. Vicky explicitly expressed her appreciation for her tutors' time and feedback on her homework, which in turn exerted a positive impact on her emotional and behavioural involvement. While Tony was tired of the tutor's overly explanation of the written order of traditional Chinese characters in Session 6, he became fascinated by the tutor's further explanations on this topic in Session 7. His recovered WTCC was largely because he "felt like the teacher really did care about my willingness to learn" and appreciated the tutor's preparation on this topic. However, the impact of perceived effort and investment shown by tutors has not been studied in L2 WTC literature.

9.2.5 Multimodality: learning materials and presentation

In online sessions, learning materials and how they are presented as afforded by multimodal environments (e.g., ZOOM as the learning platform) to facilitate individual learners' learning are particularly multimodal. These two aspects of multimodality are discussed as follows that have evidenced the effectiveness and engagement of learners involved in this study.

Learning material, referring to anything that was used for learners to learn in this study, was found to contribute to fluctuations in learners' WTCC at specific moments. Without the provision of any prescribed texts and materials in this study, the tutors designed the materials based on learners' needs and interests. For every session, tutors prepared PowerPoint slides to support discussion that included pictures selected by the tutors and texts that highlighted language items to carry out learning activities and facilitate communication. In addition, tutors sometimes provided some supplementary material to engage learners in conversation during communication, such as playing a video clip related to a specific topic or typing out words on a PowerPoint.

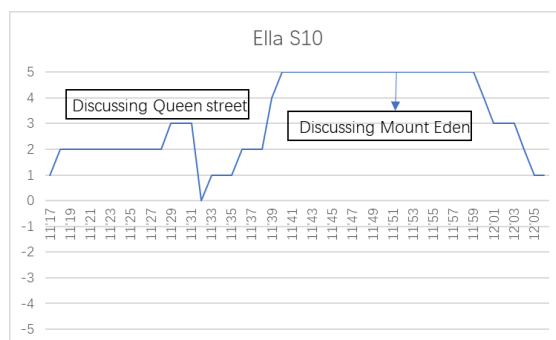
Among these learning materials, images were extensively reported as beneficial situational factors in learners' WTCC. They reported that images could act as a trigger to evoke and increase their interest in a certain topic. In the current context, learners were only involved in choosing the topics of discussion, and they had no idea of how tutors would design and implement their sessions accordingly. Therefore, the emergence of pictures relevant to their preferred topics would boost their excitement and curiosity. Ella was excited about a picture of Mount Eden that flashed up out of order in Session 10. The tutor then reverted to the intended order, requiring her to talk about another picture first. However, this picture of Mount Eden (a prime location in Auckland) had planted a seed to promote her WTCC arousal once they moved on to talking about Mount Eden, and that seed then blossomed, which means her WTCC increased and remained at +5, showing her strong intention to talk (see Figure 9.2). As for Tony, the picture of Mount Qingcheng (in Chengdu China) provoked his interest in the written order of Chinese traditional characters, leading him to bring up this unexpected question about why Chinese traditional characters were presented from left to right in Session 6. However, the overlong unclear explanation aroused Tony's confusion and even boredom. This suggests that images on the one hand, could set the foundation for the ongoing interactions between tutors and learners, confirming Guichon and Cohen's (2016) claim that images can be used to maximise learning by affording learners' language output. On the other hand, learners' interest provoked by the picture, if not handled properly, might result in boredom or disappointment.

Other materials, such as images, provided by the learners, have also proven to be highly useful to nurture their WTCC. Sharing their own photos helped learners explore meaning in their personal lives and elicited rich utterances relevant to their daily lives. The results suggest that learners' intention to talk started forming during the process of selecting the photos, where their emotions played a major role in shaping WTCC fluctuations. Tony, in Session 10, shared a photo showing his own farm and a house on the farm. When the conversational turns took place, he clearly attached emotions such

as enjoyment, love, and pride to his home, showing his strong emotional investment in what was behind his photo. Therefore, his WTCC ratings kept high within this specific instance of a communication event. Moreover, sharing photos also helped learners establish rapport and strengthen their connection with their tutors. For example, Vicky was happy to share photos of herself at different ages with her tutor in Session 8 and expressed her excitement to talk about her own story. This self-exposure demonstrated Vicky's trust in her tutor, through which they became more familiar with each other, promoting more meaningful communication.

Figure 9.2

Ella's Idio-WTCC ratings in Session 10



In addition to the image, texts also played a vital role in the SCOLT-WTCC sessions. Apart from serving as a means of displaying learning objectives in the previous studies (Yamada & Akahori, 2007), in SCOLT-WTCC, tutors' texts typed during the conversation also caught learners' attention and highly influenced their WTCC. Learners might encounter difficulties in comprehension and expression, which could possibly cause conversation breakdown. In these circumstances, typing out words combined with tutors' timely guidance could be extremely useful for recovering a conversation breakdown. For example, rather than compared to vocabulary learning before a topic discussion, Tony preferred to pick up some words typed out during their conversation because it gave him more contextual cues when combined with the pictures or the topics under discussion. In addition, Tony liked the way that his tutor only displayed certain words, as it could make him think more to complete a sentence.

As he wrote:

Even though this [typing out certain words] can sometimes be too cumbersome, I feel like this forces me to talk more or think harder about how I'm going to communicate rather than reading an entire sentence that the teacher has displayed. (TJ5)

In this study, the way of presenting the learning material was also reported to influence learners' WTCC. All tutors used the screen-sharing function on ZOOM to share their slides. Synchronous computer-mediated communication (SCMC), ZOOM in this case, through inbuilt functions such as screen-sharing, webcam, video, audio, text, and whiteboard and so on, brings teachers and learners together for simultaneous pedagogical interaction. Although there is no physical co-presence context for the tutor-learner interaction, the SCMC environment can increase the perception of others as present and helps participants to establish and maintain social and affective connections with others in interaction, that is, social presence (see Section 3.2.1). Although the tutor and the learner were not co-present physically, the screen sharing compensated for this lack and helped create a sense of social presence. This was illustrated by Ella's example: she became anxious when there was no screen sharing, as she could not find certain words to describe the technical failure, and she was not sure what to look at on the slides. As a result, the feeling of being in different physical settings became more salient at that moment.

9.2.6 Factors influencing WTCC as a CDST system

The preceding sections reveal a range of factors from different domains influencing learners' WTCC in specific communicative interactions. More importantly, these influential elements (such as SPCC, emotions, topic-related variables, tutor-related factors, and multimodality) were not independently separated entities but interacted in a complex way with each other. These dynamic, unpredictable, intricate reciprocities between various influences emerged and cooperatively shaped learners' WTCC at the specific moment, suggesting that WTCC, as a CDST system, exhibited a

multidimensional dynamic construct.

The current study found that those factors did not play equal roles in shaping WTCC at all times but rather appeared to work dynamically and reciprocally, affecting learners' WTCC in specific communication events. Even for the two learners (Vicky and Dan) with relatively stable and high communicative intentions, the influencing factors were constantly changing. For example, interest in the topics often played a significant role in Vicky's WTCC; while sometimes her language competence determined how much she could say on a specific topic. In the online environment, technology issues sometimes influence the flow of conversations. Vicky recalled several times in Session 5, where she told the tutor could not hear her due to an unstable internet connection. She had to stop talking even though she had strong WTCC. These findings were in line with previous studies (Cao, 2009, 2014; Syed, 2016) that there is variability in the strength of the factors or the different configurations of factors in shaping learners' WTCC at different moments in time. As suggested by Cao (2009, p. 208), "their influence is differently weighted on different occasions, some factors might override others at particular times."

Additionally, these intricate reciprocities among the factors included opposing processes (e.g., approach and avoidance) converging to shape learners' WTCC, which suggests that L2 WTC is not a straightforward, linear process (MacIntyre, 2007; Yue, 2016). In this study, learners described their experiences of conflict between driving forces and restraining forces when deciding whether to engage in communication. The resolution to these moments of conflict depended on which factors played a larger role in learners' WTCC at that moment. For instance, there were moments in the opening of several sessions where Ella was both simultaneously propelled by driving forces (such as a desire to initiate greetings to her tutor, and a desire to respond to the tutor's technical check) and hindered by restraining forces (such as uncertainty about greetings in a culturally appropriate form, limited vocabulary). Under such circumstances, she

had to make conflicting decisions on a regular basis, however, the restraining forces in the first several sessions overpowered her WTCC and induced reticence within her. Finally, in Session 7, she made a conscious effort to reverse the conditions by initiating greetings to her tutor, further increasing her WTCC at that particular moment.

It is inevitable that learners may encounter various challenges and difficulties during communication; however, how they react, negotiate, or overcome immediate WTCC-related difficulties makes a big difference. As mentioned before, learners' SPCC, in particular, linguistic facets, associated emotions, topic- and tutor-related variables, and technology-related issues have been found to directly impact the fluctuations of WTC during interactions. However, learners could exercise their agency to resist or amplify the impacts of these difficulties. Clearly, in Vicky's case, difficulties in expression could not lower her WTCC, as she did not focus on the difficulty itself but exercised her agency to try different ways to solve it. Drawing on her extensive language learning experiences, Vicky developed and employed many strategies to resolve impasses, including: "reflective pause", re-analysing the content of the dialogue, and linking new information with previous knowledge. The "reflective pause" strategy (see Section 7.4.1) she mentioned often could help her notice the nature of the difficulties she was experiencing at a micro-level of this process and gave her time and space to find a way to overcome the difficulty. Dan's "first and second instincts" offered another example showing that difficulties did not lower his WTCC, confirming MacIntyre et al.'s (2020) findings that rational thinking was related to high WTCC. Even though Dan struggled with difficulties in expression and was reluctant to speak more, at the same time, he deployed his agency by using a deliberate, analytic thinking style to fight against his intuitive reluctance. In this sense, Dan's experience negotiating with his WTCC suggested that one's willingness to speak was not always a straightforward process but could sometimes feature ambiguity.

As for Ella, she displayed clearly different reactions when facing difficulties. In

challenging situations, especially linguistic difficulties, like a failure to retrieve vocabulary, her agency was restricted due to an intriguing feeling that she was not able to solve it, and it usually combined with other negative affective feelings such as anxiety, apprehension, and frustration. At that moment Ella's affective reactions to conversational challenges restrained her WTCC to produce more speaking. Nevertheless, Ella's WTCC was not always passively influenced by linguistic difficulties. In particular, she referred to the "weird moment" twice (see sections 5.4.2 and 5.4.3), occurring when she gradually realised that she could express herself in different ways and did not have to fall down at the linguistic hurdle. Hiver (2014) considered this "weird moment" as the outcome of the self-organisation of a dynamic system into a preferred state in the CDST system, indicating that learners could make a small adjustment to the context, and their reactions to various factors and situations were not 'hardwired' but 'softly assembled' (Dörnyei et al., 2014).

Furthermore, learners in this study mentioned that uncontrollable factors, including physiological states and the physical environment, highly affected their WTCC. The physiological factors, including tiredness from work, anxiety in general, and a sense of heat and sweatiness, were found to hamper learners' WTCC. Learners in this study had to juggle work, study and also the research tasks I had assigned to them. Sometimes, they felt exhausted and fatigued after a heavy work commitment and then entered the session with tiredness, making it hard to engage in the conversation. In addition, the physical environment, such as a public shared space with a lot of people around and hot weather, also depressed learners' WTCC. For example, Tony could not find a private room but a cafeteria with people around to attend Session 4. His normal feelings of privacy and security in the one-on-one online session were eliminated in a public physical area. Therefore, he felt restricted and embarrassed to speak Chinese in that atmosphere. Learners' WTCC displayed sensitive dependence on initial conditions, corroborating the non-linearity or threshold effects (sometimes called the butterfly effect), one salient characteristic of dynamic systems indicating that minor differences

in initial conditions could significantly affect the eventual learning outcomes (de Bot et al., 2007; Verspoor, 2014).

9.3 Dynamic Methods: Effectiveness and Connections to WTCC

In the above section, I examined fluctuations over time in WTCC over the course of single moments, single sessions, and throughout the SCOLT-WTCC project, and established factors accounting for periods of fluctuations and stability in WTCC, exploring their interrelationship. It became clear that WTCC could be considered as a complex dynamic system. That is, WTCC was not always fixed but varied in response to changes of interconnectedness of all factors over time, also featured as non-linear behaviour, and self-organised into attractor and repeller states that have been discussed in Section 2.3.1. How can the conceptualisation of WTCC as a dynamic complex system be achieved? The RQ 2 of the study was concerned with the effectiveness of dynamic methods including idiodynamic method and ESM.

Many previous studies have adopted solely one dynamic method to reveal the variations in WTC in classroom-based or lab-based situations. However, this study implemented multiple forms of dynamic methods, including the Session-based WTCC scale, the WTCC grid and the idiodynamic method, to demonstrate the variability of WTCC in emerging interactions that occurred at different levels in the SCOLT model proposed by White et al. (2020). These quantitative ratings of WTCC were triangulated with qualitative and observational data to reveal the interactions occurring at the exact time of WTCC changes. By conducting multiple dynamic methods, this study investigated the individual nature of each learner's WTCC and expands the understanding of how and in what ways their dynamic online communications are (re)shaping their developing CDST at different levels across time and space.

From a theoretical point of view, the focus of CDST research should be on the dynamics by which learners' WTCC continuously arrives at new moments. This study followed

Hiver and Al-Hoorie's (2019) suggestion that the data collected would meet the following requirements to study complex dynamic systems: (1) dense, (2) individual, and (3) longitudinal. This study used multiple methods to determine learners' WTCC at many regular measurement points combining learners' reflective accounts to build a picture of individual learners' WTCC with its dynamic and unpredictable interplay of factors, and to seek linkages across timescales. The aim of this part of the study was to demonstrate how learners' WTCC could be effectively measured over an attenuated period and in multiple encounters. This section will illustrate the interrelated nature of timescales with respect to changes in learners' WTCC, discuss the value of the idiodynamic method and the experience sampling method (ESM) in recording the moments that create the sense of being (un)willing to communicate, and present the advantages and disadvantages when using these methods from the learners' point of view.

9.3.1 The dynamics of WTCC on different timescales

MacIntyre (2020) suggests that "documenting the process by which various factors interact and the timescales on which different processes operate is the heart of CDST" (p. 121). In this study, there were at least four timescales operating, all of which interacted with each other. The first was the long-term characteristics of the person built over many years, and they were captured by questionnaire measures of WTCC-Trait, language anxiety, and self-perceived communicative competence. As the focus of this study was to examine how learners' WTCC fluctuated and emerged as each dyad worked together in the SCOLT-WTCC project, the choice of timescale was relative, here *the levels* in the SCOLT model (see Section 3.3.1) rather than absolute time (de Bot, 2014). The second timescale (Level 1) was measured over a series of sessions by the Session-WTCC scale. The third timescale (Level 2), operating within one session, maybe on a topic-by-topic basis, was measured by ESM every five minutes. The fourth timescale (Level 3) operates on a per-second basis, combining influences from

relatively stable individual differences, specific demands of the SCOLT-WTCC situation, unique communication demands of the topic itself, and immediate experiences (such as forgetting a word).

9.3.1.1 The uniqueness of individuals' WTCC system

The four learners showed quite different dynamics in WTCC, highlighting the uniqueness of individuals and the inherent complexity of WTCC systems. Two learners, Dan and Vicky, displayed stably high WTCC at all levels, whereas the other two learners, Tony and Ella, reported very different forms and levels of WTCC. It possibly suggests a different structure and conceptualisation of WTCC. For example, for Tony, there is a high degree of dynamism in WTCC at levels 1 and 2, whereas relative stability is maintained within a certain long timeframe at Level 3. On the more macro levels, Tony's data reflect considerable dynamism depending on knowing what to do in this session or this activity (learning objectives) and real communication with the tutor. This might be related to the fact that he referred to himself more as a language user, barely discussing himself as a language learner in this program. He was more concerned with the overall structure and flow of the session, which was aggregated across time and tended to be reported on a more abstract, generalised level through explicit reflection. During those situations that could evoke authentic communication, Tony was very excited to talk barely noticing the linguistic facets. He preferred to learn words in context especially when expression or comprehension needs came up.

In contrast, for Ella, there is a high degree of dynamism in her WTCC system at all levels, especially in terms of changes at the idiodynamic level, Ella's WTCC dynamics seemed to be marked by more sharp, quick changes, which means her WTCC system was in a greater state of fluctuation all the time, and changes in one part could easily affect other parts. It was notable that Ella tended to refer more to her sense of WTCC in terms of linguistic facets and affective terms, which were linked to real-time

experiences of WTCC and functions on microlevel timescales. Interestingly, these forces of change were fundamentally the same on each level of WTCC, just expressed in different ways. Thus, even at the more macro levels, it was linguistic facets and her emotions that affected her most strongly.

Dan and Vicky retained high WTCC at all levels. They both gave similar reasons in terms of relative stability in their WTCC, including close relationships with their tutors, getting accustomed to the SCOLT-WTCC project and topics and so on. Although learners' WTCC was divided into macro and micro levels, the three levels were based on the SCOLT-WTCC, so their WTCC had a relatively tight "scope and size" and was reported within SCOLT-WTCC, which might reduce variation in their report content (Elahi Shirvan et al., 2020; Mercer, 2014). In addition, as mentioned in 9.1.3, both learners' *ideal self* and intrinsic interest in anything about Chinese helped to bring stability and emerged as pleasant WTCC attractors, where their WTCC might not be sensitive to small perturbations conceptualised as a "disturbing force" (Hiver, 2014, p. 23).

9.3.1.2 The interaction of timescales

This study found that variability of learners' WTCC over time at one timescale could contribute to periods of either fluctuation or stability at briefer or larger timescales. In this study, the familiarity between tutors and learners showed a gradually rising function on the scale of a series of sessions and helped learners feel comfortable speaking with their tutors in general, as mentioned before. The rapport built over time (long timescale) increased the driving forces to talk at that moment when they had to decide to jump into the conversation (short timescale). Equally importantly, learners' perceptions of rapport that manifested itself in different ways at a particular time, such as even tutors' vivid explanation in a nonverbal way, could contribute to the establishment of affinity: Rome wasn't built in a day, the relationship between tutors and learners developed over time.

Therefore, through gathering and combining data from different timescales, this study portrayed a fuller picture of individual learners' WTCC. These findings appeared consistent with Sulis (2020) who developed multiple methods for her study to investigate inter- and intra-individual variability in motivation and engagement, as well as their relationship over different timescales, highlighting the interrelation between different timescales.

In addition to the interplay among different timescales, this study found that the data from different timescales were complementary to each other. Take Ella's WTCC in openings as an example (see Section 5.3.3.2), her general negative attitude toward openings (except Session 7) was demonstrated through the journal as in the sessions where WTCC was measured by the WTCC grid at five-minute intervals, and the first rating was taken five minutes into the session. Although Ella's narratives in her journals provided rich descriptions of the processes involved in generating UnWTCC, the lack of any ratings over the first interchanges of the session made it hard to reveal the dynamic process in her WTCC as communication unfolded. Whereas the data collected from the idiodynamic sessions helped fill in this gap. Ella's Idio-WTCC ratings experienced two salient drops to -5 and changed quickly in the first two and half minutes of Session 2. As an analogy, imagine looking at this fluctuating process with a microscope: lacking certain words to describe technical issues, feeling a surge in uncertainty due to lack of shared screen, and lack of confidence in her pronunciation when repeating words. Even the different degrees of WTCC due to familiarity with words were captured. It is worth noting the rise in Ella's Idio-WTCC increased between the two drops. This was because Ella and the tutor's conversation was back on track after a successful repair of the communication breakdown caused by lacking the affordance of the shared screen on the technological tool being used. Once the difficulty was resolved, their communication arrived at a new moment in time where Ella's Idio-WTCC increased. The idiodynamic method helped to capture these communication events during which learners' WTCC might fluctuate subtly, indicating that learners'

WTCC fluctuates not only from situation to situation, but from moment to moment.

9.3.2 Complex dynamic features of WTCC

The methods used in this study demonstrated the dynamic and complex nature of the WTCC which was subject to change at unpredictable moments during communication. Idiodynamic software, documenting and quantifying the process of change of WTCC, enabled me to identify the moments that created the sense of being (un)willing to communicate on a brief timescale. The addition of the stimulated recall interview data provided me with learners' rich description of the processes and complex dynamics involved in creating WTCC occurring at the exact time WTCC changes.

Many examples in this study demonstrated the power of the idiodynamic method to detect moments of change in WTCC and identify explanations underlying the WTCC system in real time. For example, one unusual instance was preceded by Tony's relatively flat and low Idio-WTCC ratings in a reviewing-words activity at the beginning of Session 2, until he received the tutor's praise. Tony perceived this praise as the end point of reviewing words and was trying to change the trajectory of the conversation by initiating questions about the tutor's job to a discussion of topics relevant to real life. The two peaks in Tony's Idio-WTCC level shown in Figure 6.7 corresponded to his two questions and combined with Tony's explanation in TS2, showed his strong intention underlying his actions. This indicates that he was aware of his ability to impact learning activities by giving or not giving certain responses to the teacher. Initially, his WTCC was low as he did not have the intention to speak and wanted to let the teacher teach. However, when the teacher moved to introduce new vocabulary, Tony interrupted the flow and initiated a change in the trajectory of the communication. Meta-cognitively he was aware that he could enact some agency and interrupt the flow of the communication. Through the idiodynamic method, the lynchpin of Tony's particular initiating questions and its underlying complex intention

processes were captured.

As mentioned in sections 4.3.3 and 4.4.4, due to the practical issues of idiodynamic software and the outbreak of COVID-19, I implemented a more naturalistic measurement method, experience sampling method (ESM), to collect three learners' Grid-WTCC every five minutes during sessions. ESM is also a powerful method to show the character of WTCC, including fluctuations and stability, by virtue of its repeated measures design. Combining the journal data and video recordings of SCOLT sessions, it effectively renders a wealth of information on the intricate interactions of factors underlying the communication process.

For instance, in Tony's case, an attractor (Hiver, 2014; Nematizadeh, 2021) emerged as his Grid-WTCC remained stable and high for the entire Session 9 (see Section 6.3.2). His Grid-WTC rose at the outset as his initial excitement was sparked by a video sent from his tutor before Session 9. During their session, Tony seized the opportunity to learn new vocabulary relevant to this video, which in the end contributed to his language development. In Tony's Session 4, another attractor emerged due to a lack of private space to attend the session, and his Grid-WTCC remained negative almost for the entire session. Only at the end of the session, when the teacher showed a picture of himself skydiving, did Tony's Grid-WTCC increase to +3 as this related to his job. This corroborated Hiver's (2014) claim that attractors might not be sensitive to small perturbations but were not necessarily unchangeable or permanent. In Tony's Session 4, the perturbations, his interest in the skydiving picture in this case, were strong enough to push his negative Grid-WTCC out of an attractor state.

These examples demonstrated the value of ESM in tracking the quantitative ratings of WTCC over time, especially revealing the pattern of learners' WTCC for the entire session. In CDST, the WTCC score at the next moment in time is partially a function of WTCC at the preceding one, which sets the moment's initial conditions (MacIntyre

& Legatto, 2011; Verspoor, 2014). In Tony's Session 9, the lingering effect of feeling excitement activated his strong desire to talk in later topic discussions. Despite encountering difficulties in expression several times in this session, the lasting impact of initial excitement partly helped Tony sustain a high level of WTC and transformed it into active engagement even when they discussed different topics. On the other hand, despite dynamic systems also being self-organising into attractor states, change is to be expected as variables fluctuate over time (MacIntyre & Legatto, 2011). Even from Tony's Session 4 which indicated his negative attractor states, the last picture that popped up had large effects on the overall WTCC system, confirming one of the dynamic system's properties, the butterfly effect (de Bot et al., 2007; MacIntyre & Legatto, 2011).

9.3.3 Advantages and disadvantages of the dynamic methods

Methods used in this study not only enabled me to examine the nature of learners' WTCC, but the learners also gained benefits in their language learning by being part of this research. This study encouraged learners' self-reflection through the use of tools, including journals and stimulated recall interviews (StRI), to record their narrative responses about what stimulated or inhibited their intention to talk during the sessions. Self-reflection allowed learners to tap into their experience and feelings to make decisions to jump into a conversation or not, by which learners become more aware of their own learning process and progression, expanded the benefits of the experience, and enhanced their language development. Ella in EJ3 (see Section 5.3.3.5) clearly described the value and benefit of oral and written self-reflection on learning as it facilitated self-monitoring personal development and increased the ability to analyse and understand key events, enhanced readiness to probe and take risks in similar situations. Ella's awareness of different sampling strategies to overcome her reluctance to communicate in the opening of the session developed through "doing these questionnaires" (EJ7). In Session 7, she managed to initiate greetings to her tutors

which could be considered a huge victory for her in the process of self-reflection.

The value of video recordings for this research has been discussed in Chapter 4 (see Section 4.1.3.3), which provided access to and a detailed record of tutor- and learner-interactions. This study found that learners used their video recordings as a learning resource. For example, Vicky mentioned in VS2 that viewing session video recordings was itself a learning moment, which could help her understand what she could not fully grasp during the session, consolidate what she had learned, and enhance learning and retention. Although learners could remove themselves from the pressures of the decision-making process and ongoing session demands while watching the video, they might generate some negative emotions while watching their performance. Tony, in TS10, expressed his embarrassment at viewing his bad performance during that session while rating Idio-WTCC, which affected the validity of his Idio-WTCC ratings. It is worthwhile to consider how to reduce the adverse effects in viewing the video to better utilise the value of the video effectively in future research.

Previous sections have discussed the value of the idiodynamic method of providing detailed information on learners' WTCC during communication. However, there were limitations mainly concerning the participants' use of the idiodynamic software. First, from Vicky and Dan's explanations, the fluctuations in their Idio-WTCC were due to the auto-zero function of the software, which did not reflect their stably high WTCC. Second, there are restrictions on the types of computers when installing and using this software. From the instructions of the software, the length of the uploaded video should be under 15 minutes. However, this requirement does not apply to all Windows computers. The learners mentioned that they had to log out after they had been rating their Idio-WTCC for around 10 minutes. Otherwise, the software would crash, and no results would be saved. Previous studies (Gregersen et al., 2014; MacIntyre & Legatto, 2011; Wood, 2016) using the idiodynamic method were mainly lab-based, and the communication tasks were often three to five minutes. Therefore, no reports of this

software issue could warn me of the difficulty. In my study, each session lasted 20 to 30 minutes, and learners often felt that rating their Idio-WTCC over that period was very demanding. It seems that this software required participants to rate the long video without any pause, otherwise, the ratings would not accurately reflect learners' WTCC. Vicky was busy when she was rating the Idio-WTCC of Session 10, so she paused the video recording in the software during the rating several times to pick up a phone. However, her Idio-WTCC showed more fluctuations in Session 10 than in the other two sessions. These issues made me realise that it would not be practical to confine the research to the idiodynamic method; I thus alternated it with a less demanding approach would help retain my participants and enable me to dig into the dynamic nature of learners' WTCC.

In addition, Tony in TS10 compared the accuracy of his WTCC ratings from the idiodynamic method and ESM and he felt his Grid-WTCC more accurately reflected his feelings at that moment. Two reasons could explain the difference. First, as mentioned above, due to discomfort at viewing his bad performance, Tony admitted that he was rating the level of embarrassment rather than Idio-WTCC. Second, the idiodynamic method is retrospective, where the communication and idiodynamic aspects are separate, so there is still memory bias in learners' Idio-WTCC. On the other hand, ESM combined the two aspects by which the participants reported their level of WTCC in real-time on a chart while simultaneously taking part in the session. Therefore, the Grid-WTCC ratings were more accurate. Nevertheless, ESM has its own drawback, such as disruption in the naturally-occurring communication and failure to cover the intervening fluctuations, as indicated in the discussion of Ella's openings.

Inevitably, there is no method perfect for every situation. However, these two approaches were combined in this study to develop their own strength in providing different levels of granularity of learners' WTCC developmental process (de Bot, 2014). de Bot (2014, p. 32) argued that "while on timescales of fine granularity, the data may

suggest slight decline, that change may actually be part of a pattern of growth on a scale that has a lower granularity and a longer time window”, suggesting the importance of taking timescales into consideration when examining changes over time in a system. This value of having used the multiple measures to investigate learners’ WTCC at different timescales has been discussed in Section 9.3.1.

9.4 Tutor and Learner Perceptions of Learners’ WTCC

In the one-to-one SCOLT setting, tutors and students are obliged to maintain interaction, for the tutors to be attuned as closely as possible so that the WTC on which conversation can be built is nurtured. During conversation, tutors need to be assessing and responding to learners’ WTC moment by moment. This study is unique in using the one-to-one conversation in the SCOLT setting as a window into capturing differences or similarities between tutors’ and learners’ perceptions of learners’ WTCC over time. By embedding quantitative ratings within a qualitative approach, subtle differences in the dynamics of affective reactions and associated conversational excerpts between tutors and learners can be observed. The methodological approach used to study the communication activity has not been used previously in this way, and it represents an innovation in the study of dyadic communication. The following describes the process of how tutors and learners perceive learners’ WTCC over time and at a specific point.

9.4.1 The effect of building rapport on learner’s WTCC

Similar to the learners’ perception, tutors in this study considered that building rapport positively influenced learners’ WTCC. As already noted (sections 9.1.1 and 9.2.4), the tutors made efforts to establish and maintain rapport with their learners, among which they constantly used the negotiated curriculum focusing on learners’ personalised learning, to promote learners’ WTCC. In the early stage of SCOLT-WTCC, due to a lack of learners’ involvement in the curriculum design, tutors found it challenging to design activities potentially suitable for learners, and had to rely on their prior

experiences or speculation about their students' preferences, mostly collected from the pre-session questionnaire. This easily led to a mismatch of the tutors' intentions and learners' perceptions in terms of tailored session activities. For instance, in Tony's Session 2, the tutor and Tony had different interpretations of the tutor's praise after reviewing the words (see Section 6.5.1). Although synchrony with regard to WTCC ratings exists to some degree between Jiyao and Tony in Figure 6.20, both showing an upward trend, they provide different explanations of the tutor's praise behaviour. Tony perceived the tutor's praise as an endpoint for a formal learning activity (reviewing words) and an opportunity to start a casual chat, therefore his Idio-WTCC increased. However, Jiyao did not identify Tony's expectations in this exchange, instead perceiving this positive comment as a summary of Tony's performance in the reviewing words activity. Jiyao thought that Tony had a strong desire to learn more language items, which in turn spurred him to think that he should add a little more to the vocabulary review phase. At this stage, Jiyao took Tony's capability to produce the language items as a key criterion of whether Tony achieved an ideal learning result. This might be because without identifying Tony's preferences, Jiyao still held traditional beliefs about the teacher-centred approach and the teacher as the source of knowledge, which were not aligned with the learner's expectations and needs for situations that could elicit authentic exchanges, and for tutor, support functions as opposed to 'teaching'. To some extent, this mismatch missed the opportunity to promote the learner's intention to engage in dialogue. Such mismatch situations were also found in Dai's (2022) SCOLT study, where she found that mismatch incidents would impact teachers' perception of their relationship with learners: in the early stages, when they began to develop a rapport with each other, tutors and learners had not established a mutual understanding regarding learners' expectations, interests, proficiency, etc. Therefore, there is a need to consider how to effectively identify learners' learning goals in the early stages of the future SCOLT program and other online learning opportunities.

With tutors continually negotiating the curriculum in their teaching practice in SCOLT-

WTCC, learners recognised that curriculum design was an ongoing process and increased their involvement in co-constructing the SCOLT-WTCC sessions. The evolved rapport was associated with the reciprocal communication of both parties, which increased mutual trust and understanding of each other, strengthened their personal relationship, and further led to a greater alignment of their perceptions in learners' WTCC. Within this study, the factor that tutors and learners most frequently mentioned in influencing learners' WTCC was learners' topic interest and knowledge.

The examples that aligned perceptions in this study can be found in Figure 5.23 and Figure 6.22, where two pairs of tutors and learners (Ella with Yating, and Tony with Jiyao) showed relatively sustained high WTCC ratings. Figure 5.23 presents Ella and Yating's idiodynamic ratings for the excerpt where Ella was asked to design a three-day trip plan for Auckland. During the conversation, despite Ella having notable linguistic difficulties, she felt excited and capable of completing this task. In Ella's explanations, her interest in travelling and familiarity with this city promoted her high WTCC. Similarly, Tutor Yating attributed her perception of Ella's high WTCC to Ella's topic interest and knowledge from preparation, and she sensed that she and Ella acted as co-constructors of knowledge. Interestingly, when comparing Yating's reflection in Sessions 2 and 10 relevant to travelling topics, it is clear that her awareness of adapting to the SCOLT environment developed over time, which in turn established rapport as she consulted with the learner to find out what her preferred approach and favoured topics for learning were.

There were some questions which are relatively general [just so so], or relatively shallow - everyone can think of them. But if [the questions] required students to think or interests to them, she would [will] be more willing to discuss her answer.

可能有些问题就比较一般，就比较浅显，大家都能想到。但如果涉及一些学生能够，她还能再想一想，或者她自己又感兴趣的问题的时候，她会更愿意就是和你进行一个表达。(YS2-E)

I set a more authentic scenario where I asked her questions as she was talking, and we were

having a two-way communication, so we did not have obvious sense that we were in a classroom, we both felt relaxed during communication. So, in this relaxing atmosphere, I think the learner was more willing to express.

我模拟了一个比较真实的场景，因为她在说的过程中我也会问她一些问题，我们在进行一个双向的沟通，所以我觉得这种没有明显那种课堂的那种感觉，就会让我们彼此都很放松，所以在这种放松的过程当中我觉得学生表达意愿是更强的。(YS10-E)

The case of Tony with his tutor Jiyao also demonstrates an increased sense of authentic communication as they developed familiarity with each other. Figure 6.22 shows their idiodynamic ratings for the excerpt where Tony was enthusiastic about sharing his photo with Jiyao. Tony mentioned that this photo description task provoked mixed positive feelings (e.g., love, enjoyment, excitement), which encouraged him to explore meaning in his life and facilitated his desire to share everything relevant to that photo. Even though he faced some obstacles in describing himself, this difficulty in vocabulary did not stop him from talking. Jiyao also had similar comments about Tony's performance and attributed this high WTCC to the topic being relevant to Tony's life which enabled Tony to share topic knowledge.

These two examples show tutors and learners similarly recognized the importance and the value of tapping into learners' interests in certain topics in promoting learners' intention to communicate. Learners' strong interests in certain topics had the dual effect of promoting learners' WTCC and improving their fluency in using the target language, albeit at the expense of the accuracy of expression. Moreover, the ongoing negotiation of curriculum enabled tutors and learners to become more familiar with each other, allowing them to adjust to the SCOLT-WTCC context and further develop their rapport. In such contexts, tutors more easily designed topics to align with learners' needs and interests. The mismatches within tutors' intentions and learners' perceptions were eradicated, and a more accurate understanding was reached. Tony shifted from being confused about the tutor's intention behind Session 2 activities to feeling excited about engaging in conversation in Session 10, suggesting that the synergy of rapport and

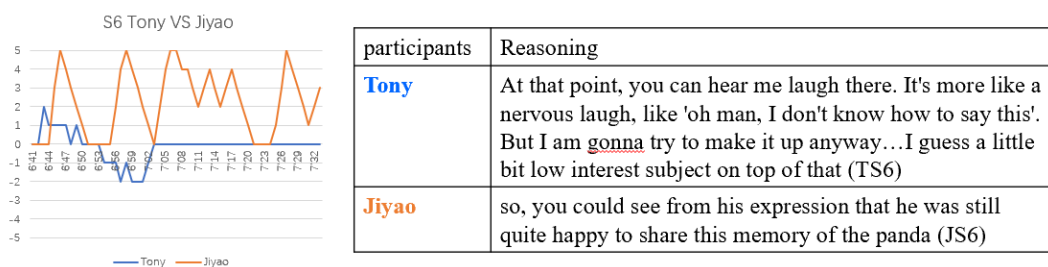
topic-relevant factors influenced learners' WTCC.

9.4.2 The dynamics of tutors' and learners' perceptions of learners' WTCC

Although a negotiated curriculum contributed to the alignment of topic perceptions between tutors and learners, a myriad of sub-topics emerged during conversations which sometimes caused the mismatch of both parties' interpretations. Sometimes learners and tutors might have different understandings about learners' needs or preferences, which caused tutors' and learners' perceptions of learners' WTCC to diverge. The topics under discussion were negotiated continuously during interpersonal communication, and the ongoing processes of tutors' identifying learners' preferences and learners' self-exposure to their needs played a role in the ongoing communication process. Below is an example showing the inconsistencies of tutors' and learners' perceptions about learners' interest in particular topics. Figure 9.3 presents Tony's and Jiyao's idiodynamic ratings and explanations for changes in WTCC. In this excerpt, where Tony did not know how to answer the question "why do you think a panda is cute?" his WTCC dropped to the negative band around 6'53 (see Figure 9.3). Jiyao, however, mistakenly assumed that Tony was interested in pandas, reflecting the inconsistencies between the tutor's and learner's perceptions.

Figure 9.3

Idio-WTCC ratings for Tony and Jiyao ratings of Tony in the 6'41-7'33 of SCOLT-WTCC 6 conversation



Conversational twists and turns may be partly the result of both parties' different

interpretations of learners' preferences. Such a process in a short period might not be reflected in the general perception of learners' interest in certain topics, but in specific actions, reactions, and the rationales underlying them. The pairs were in constant contact and they had increasingly extensive knowledge of each other, even getting familiar with the rhythm and flow of each other's speech. This would lead to a convergent trend of tutors' and learners' perceptions of learners' communicative intention. However, CDST suggests that interlocutors' communication is a moment-to-moment process which is continuously shaped by different variables, including facial expressions. In this example, Jiyao's misunderstanding of Tony's interest in pandas caused Jiyao to perceive Tony's laughter as an indicator of enjoyment. In fact, Tony used this laughter to cover up his nervousness about this topic. Therefore, the findings regarding tutors' and learners' perceptions of learners' WTCC indicated that it was a dynamic process in terms of the different sources of factors provided by both parties.

Another observed indication was the different focus on communicative competence by learners and tutors, enacted moment-to-moment. As mentioned in Section 9.2.1, one's communicative competence, made up of various dimensions of competence, such as linguistic competence, discourse competence, and strategic competence, has been found to strongly influence one's WTC (MacIntyre et al., 1998). In this study, different dimensions of both parties' focus on learners' communicative competence influenced their perceptions of learners' WTCC. For instance, Ella was intrigued by a topic about imagining the possible ending of the movie *Titanic* in Session 6 (see Session 5.5.2), and generally, her Idio-WTCC stayed high with several brief drops in the first four minutes of discussing this topic. Ella attributed these drops to linguistic factors, such as pronunciation and lexical issues. Yating, meanwhile, focused more on Ella's effective communication competence rather than worrying too much about her linguistic competence, such as language form and accuracy. Their different attentiveness to the different aspects of communicative competence caused the mismatch between Ella's self-ratings and Yating's perceived ratings about Ella's WTCC.

All tutors involved in this study adopted a conversational approach for most the sessions, in alignment with the belief about learner-centredness in a SCOLT setting. They developed their teaching strategies to engage learners in conversations and sustain the conversations. They positioned themselves as ‘teachers’ facilitating learners’ WTCC and constantly calibrated their positions of promoting learners’ WTCC through SCOLT-WTCC practice. For example, Yating’s reflections and practices in Sessions 2 and 10 with Ella demonstrated her awareness in terms of the conversational approach. The organisation of Session 2 was mainly controlled by Yating where IRF exchange sequences were the dominant interactions. When she realised that that was the case, after that, she worked to change her role, and she was very aware of the fact that she was providing opportunities for the learner to engage in spontaneous interaction rather than controlling the SCOLT-WTCC sessions. In Session 10, she set an authentic scenario to reduce the “sense of classroom”, which made Ella feel comfortable and natural in the conversation. However, Ella was particularly aware of and nervous about linguistic issues, resulting in a mismatch of the perceptions of Ella’s and Yating’s WTCC sometimes.

Investigating matches and mismatches between tutors’ and learners’ perceptions of learner WTCC is valuable in providing insight into the process of planning SCOLT-WTCC sessions and enacting it session by session. The increasing alignment of tutors’ and learners’ perceptions of learners’ WTCC was clearly based on the establishment of the tutor-learner relationship along with a growing understanding of learners’ needs, interests, and characteristics. In planning SCOLT-WTCC sessions, tutors often tended to focus on longer timescales so that topics and the language needed to talk about them built up from session to session. However, the act of teaching and learning was conducted from moment to moment during the sessions. During conversations full of uncertainty, such as an unexpected event or combination of factors, the well-made session plan might go awry, leading to both parties’ different understanding of learners’ intention to communicate. A point of emphasis for this section is that even with care to

establish a student-centred approach, tutors may sometimes misinterpret what is happening in the event, particularly the dynamics of WTCC changing from one moment to the next.

Although whether a tutor detected the learner's WTCC depends on their relationship in general, it appeared that learners' WTCC were more clearly and easily interpreted than UnWTCC, showing more consistency in perceiving when learners' WTCC was rising than when it was decreasing by both parties. In this study, both parties were consistent in reporting the factors that positively influenced learners' WTCC, such as topic interest and knowledge and the tutor's tailored support. On the other hand, in terms of the learners' UnWTCC, both parties' perceptions produced much less convergence. In particular, when the tutors found learners showed interest in certain topics, they would deliberately dig into those topics and prolong the conversation. Jiyao's overly long explanation of how traditional Chinese characters were written reflected his misuse of Tony's interest in certain topics and neglected the learner's UnWTCC cues of saying "I understand" several times. Perhaps it is not surprising to note that it is easier to detect learners' rising WTCC as WTC, as a final step before actual L2 use, has been associated with learners' performance in the conversation (MacIntyre et al., 1998). Thus, tutors could take learners' speech during communication as a cue of WTCC, despite sometimes not being as accurate.

However, the inconsistency of the perceptions of learners' UnWTCC suggests that learners' WTCC, as an unseen intent behind their behaviour, reflected its complex, dynamic nature during communication. MacIntyre and Legatto (2011) found that students experience both driving and restraining forces at the same time in most situations, but it may be more effective in the short term to address the factors hindering the learners' WTC as mostly restraining forces can be more powerful at the moment when learners decide whether or not to talk. MacIntyre et al. (2019) thus called for concentrating on reducing restraining forces of learners' WTC as a first step during

communication, indicating that the tutors should be more sensitive to learners' UnWTCC and provide appropriate help to students to manage their conversations. If this is the case, learners' own idiodynamic ratings about their UnWTCC paired with ratings by the tutor which set foundation of tutor's following support, might have an indirect WTCC-promoting effect.

In addition, brief lapses in WTCC are not in fact always negative elements in the overall process of SCOLT-WTCC. Some students found their WTCC dropped if they were struggling with new vocabulary sometimes. But if that UnWTCC pushes them to sort out the problem, that is a moment when they are mentally deciding to stop communicating for a moment and reflect internally about the language, pull it all into place and then launch on communication again. For example, Ella's UnWTCC often derived from anxiety about an aspect of communication, that could in fact spur her onto linguistic effort, attentiveness to the tutor support provided, and potentially new learning (e.g., "weird moment" in Sessions 6 and 10). A lowered WTC may contribute to a cycle of learning, so tutors could grasp these opportunities to provide help and support to their students.

9.5 Emerging Thoughts on the Potential of Reconceptualising Communication in WTC

Analysis of one of the SCOLT-WTCC teaching and learning practices reveals that interlocutors negotiating and adjusting to each other constantly evolve and reshape to ultimately contribute to their meaningful communication, despite intervening miscommunication or conversational twists. The ultimate goal of the tutors in this study was to promote learners' WTCC in the learning activities, and direct and facilitate the interaction to meet their mutual learning goals. However, as I analysed data and discussed the findings, I realised that the original definition of WTC may need to be revised to take into account the inclusion of listening. MacIntyre et al. (1998, p. 547)

referred to WTC as “a readiness to enter into discourse at a particular time with a specific person or persons, using an L2”, expressed by the statement “I plan to speak up, given the opportunity” (p. 548). The subsequent research appeared to share the original definition to describe WTC as a state of readiness (Kang, 2005), a probability (Macintyre, 2007), or an intention (Matsuoka, 2009) with emphasis *to speak* given an appropriate opportunity or context. However, to date, listening, as an essential part of enabling effective and meaningful communication, has not been overtly included in the definition of WTC.

Interestingly, Vicky was very willing to communicate all the time, both in her willingness and in her behaviours, and her tutor had the same feeling. However, the tutor expressed slight worry about Vicky’s willingness to listen carefully before constructing her thoughts in words to contribute to communication. As demonstrated in several moments, Vicky tended to talk without thinking too much, and she also did not always seem to listen very carefully to the questions. Therefore, to make Vicky pay attention to the questions, the tutor used the strategy of showing the entire question on the slides rather than simply certain words from Session 6 onwards. Obviously, Vicky is an example of speaking overpowering her need to listen. It may even be a means to disguise her uncertainty about listening, which needs to be explored in future research.

The phenomenon of overly talkative students is well known, for example, Kota, a participant in Ducker’s (2020) study, who also reported high WTC throughout but did not dominate his partners. Kota indicated his desire to proactively take the floor; however, he tended to avoid interrupting while another student was talking as he was aware that floor-taking was not legitimate behaviour in Japanese culture. Since conversation is based on turns, and turns include speaking and listening, knowing what one’s turn is at any moment is essential for effective communication. It does create an issue when we consider high WTC to be a goal of language learning if not considering the essence of listening. This present study implies that high WTC doesn’t mean

mutually engaged and meaningful communication took place for by each pair in the SCOLT-WTCC setting, particularly when the pair had never met in person before and they were expected (though willingly) to communicate for learning. Therefore, carefully listening is crucially taken as part of WTC to better achieve the goal of learning through communication.

Listening, one of the most significant parts of communication, is vital in providing meaningful responses (Ducker, 2020). As mentioned earlier (see Section 2.1), a key claim of the Interaction Hypothesis is that listening is essential for the intake of information that derives from negotiation of meaning. Especially in the one-to-one dyadic conversation, listening is pivotal to help the learners adapt their pronunciation, rhythm, and intonation of the language and comprehend the interlocutors' messages. For example, Vicky always benefited from the tutor's corrective feedback on her struggle with certain vocabulary. When Vicky listened to Yating's exemplar to correcting her pronunciation of the words (e.g., 酥油茶, butter tea, in Session 6), Vicky in fact received the message and repeated the words twice herself and as a way of consolidating the learning process. However, without listening to what the other person says, one could not properly respond or co-construct the conversation. Therefore, learners need to be attentive to develop their awareness of listening capability, not just about comprehension, but how their listening development can better help them achieve effective and meaningful communication in maximising language learning opportunities. Ultimately, listening capability is essential to the nature of willingness to communicate. Based on these research findings, I propose a new definition of WTCC: an individual's volitional readiness to engage with the context, to listen, and enter into the discourse at a particular time with a specific person or persons.

9.6 Summary

This chapter has discussed this study's findings in the light of the research questions

and interpreted them in-depth in relation to related literature. As demonstrated in this chapter, it is reasonable to argue that learners' WTCC, as a CDST system, should be considered a dynamic and complex construct that changes and fluctuates on different timescales due to the complex interplay of multiple variables. These variables, including situational, affective, linguistic, physiological, and technological factors, interrelated within dynamic and non-linear configurations to influence learners' WTCC. Then this chapter explored the values of the dynamic methods used in this study. Through the multiple dynamic methods, the results of this study have highlighted the individual nature of each learner's WTCC and demonstrated the dynamism of different facets of WTCC across different timescales as well as the linkages across timescales.

The third part of this chapter discussed how tutors and learners perceived learners' WTCC. Both parties' perceptions of learners' WTCC became more consistent over time due to rapport building. On the other hand, there were some mismatches in both parties' interpretations on a more specific or micro level. Given that communication is a moment-to-moment process, the tutors at times found it difficult to identify or capture the rapid changes in learners' WTCC, or sometimes both parties had different understandings of certain topics or different focuses of competence. The final sections called for the inclusion of listenership as part of reconceptualising communication in the WTC research.

Chapter 10 Conclusion

In reviewing and synthesising the key findings of the present study, this chapter focuses on discussing the theoretical, methodological, and pedagogical contributions of the present study, its limitations, and recommendations for future research.

10.1 Key Findings

This current study created a composite picture of the dynamics of four adult Chinese language learners' WTCC on multiple levels across different timescales in a SCOLT environment. Through the comprehensive analysis of data collected from multiple methods, including learners' background questionnaire, the Session-based WTCC scale, the WTCC grid, the journal, and the idiodynamic method, the results of this study have highlighted the individual nature of each learner's WTCC. It was found that WTCC is subject to the considerable interconnectedness, interactions, and change across different dimensions of main drivers or inhibitors. The findings also indicated that each timescale contributes differently to the emergence of WTCC for each individual. Adopting the CDST approach, this study provides insights into the dynamics of learners' L2 WTCC on multiple timescales, that is, over the whole SCOLT-WTCC program, within each session and second by second during communication, as well as the complex non-linear interaction of underlying factors that have shaped learners' WTCC embedded in communication.

The dynamics of WTCC across different timescales

With regard to learners' WTCC over SCOLT-WTCC, the findings demonstrate that more variability in learners' WTCC could be observed at the beginning of the program. All learners volunteered for this research and were curious, motivated, and enthusiastic before the first SCOLT-WTCC session, but they did report needing some time to adjust to the environment and their tutors after the program began. The lack of a pre-

determined curriculum posed a challenge for both parties as they did not have any guidance to rely on. In particular, given that the tutors and the learners never met, there was more uncertainty and a lack of direction at the initial stage. On the other hand, the negotiated curriculum posed a unique opportunity for effective and personalised communicative practice. It acted as a communication bridge that encouraged both parties to make contact with each other, and increased mutual understanding. Concomitantly with the development of familiarisation with context and tutors, it was possible to notice learners' development of sustained and higher WTCC over time. In addition, this gradual process of familiarisation and rapport-building appears to have had a reciprocal effect on learners' WTCC during the session and the activity levels, corroborating the interactions between timescales (de Bot, 2014).

The reasons behind the dynamics of learners' WTCC

The findings show that learners' WTCC emerged as highly dynamic constructs, characterised by alternate periods of fluctuation and stability over the course of a session and within an activity. A number of variables came into play to shape and sustain learners' WTCC at the session level, including both individual (learners' self-perceived communicative competence, negative and positive emotions), and situational (topic-related factors, tutor-related variables, and technology); and the complex relationships among them. As shown by the data, these factors interrelated in dynamic and complex ways in shaping language learners' WTCC in specific L2 communication actions and throughout the session. Indeed, variability over time was not determined by one isolated determinant, nor did all factors exert influences equally and at all times. Rather the learners' WTCC was the result of an interplay of a number of situation-specific, individual interacting factors at a specific time. More importantly, this study found that the learners, as active agents, could exercise their agency to reinforce or resist the impacts of the factors in their WTCC and (re)shape their WTCC. In this sense, these findings highlight the importance and necessity of approaching WTCC from a

dynamic and complex perspective, as has been advocated in previous studies (e.g., MacIntyre & Ayers-Glassey, 2020; MacIntyre & Legatto, 2011; MacIntyre & Wang, 2021).

WTCC: an ongoing complex process

The results suggest that learners' WTCC is not a straightforward process but an ongoing co-adaptation process between the environment and the learners. In the cases of Vicky and Dan, where there was stability in WTCC at all timescales, this was also due to a complex interplay of factors allowing learners' WTCC to reach an equilibrium. It is worth noting that both cases reported their attitude and strategies towards communication struggles and difficulties, revealing their WTCC negotiation process.

Tutors' and learners' perceptions of learners' WTCC

Studying learners' WTCC in here-and-now actions, and comparing them with the tutors' unfolding interpretations of learners' WTCC, allows an in-depth and comprehensive understanding of WTCC phenomena. Both parties' perceptions of learners' WTCC became more consistent over time with a desire to build and maintain the relationship and to select communication topics convergent with learners' communication needs. However, sometimes on a global level, they could agree on the level of WTCC but nevertheless attribute it to different factors at a micro-level as interlocutors' communication is a moment-to-moment process. For example, there may be different understandings of sub-topic interest, different focuses on learners' communicative competence, and rapid fluctuations in learners' WTCC. All these factors could lead to tutors and learners having different perceptions about whether the learners wanted to talk or not.

It is worth noting that both parties had similar views on the effect of social presence mediated by the learning platform on influencing learners' WTCC. The current data

highlight the importance of social presence in the online language learning environment. Embedded multimedia, however, can sometimes disrupt teaching practice and learner attention, depressing WTC. While this may be attributed to tutors and learners having access to multiple multimodal platforms in the classroom, it can also occur when engaging with a singular platform.

Listening: reconceptualizing the WTCC

Findings that emerged in the study have particularly highlighted the importance of listening as vital to effective and meaningful communication. This factor can significantly contribute to the reconceptualization of communication in the WTCC research.

10.2 Contributions

My study's key theoretical implication lies in its demonstration of the dynamic and complex nature of learners' WTCC in the SCOLT-WTCC context at the activity, session-based, and whole project levels. Crucially, this study, adopting the CDST theoretical lens, has revealed the interrelated nature of timescales in learners' WTCC; variability at one timescale can impact on what happens at smaller or larger timescales. Inspired by the SCOLT model, in which the emerging interactions between tutors and learners are presented at different levels, this study applied multiple methods to show how learners' WTCC emerged at different timescales. In addition to the original SCOLT model (see Figure 3.1) which represents the different timescales as separate entities, my study sought a visual method to expand and illustrate that learners' WTCC can emerge at different timescales and that timescales interact (see Figure 10.1).

The emerging interactions on the right-hand side of Figure 10.1 provide a way to represent the connections between different levels, demonstrating that learners' WTCC during the emerging interactions is a complex process that takes place on multiple

interrelated timescales. By nesting emerging interactions that occur on smaller timescales within larger timescales, this new model could demonstrate de Bot's (2014) argument that “ ‘now’ is the resultant of changes on all possible timescales up to this point (p.35)”, as well as their mutual influence on each other over time.

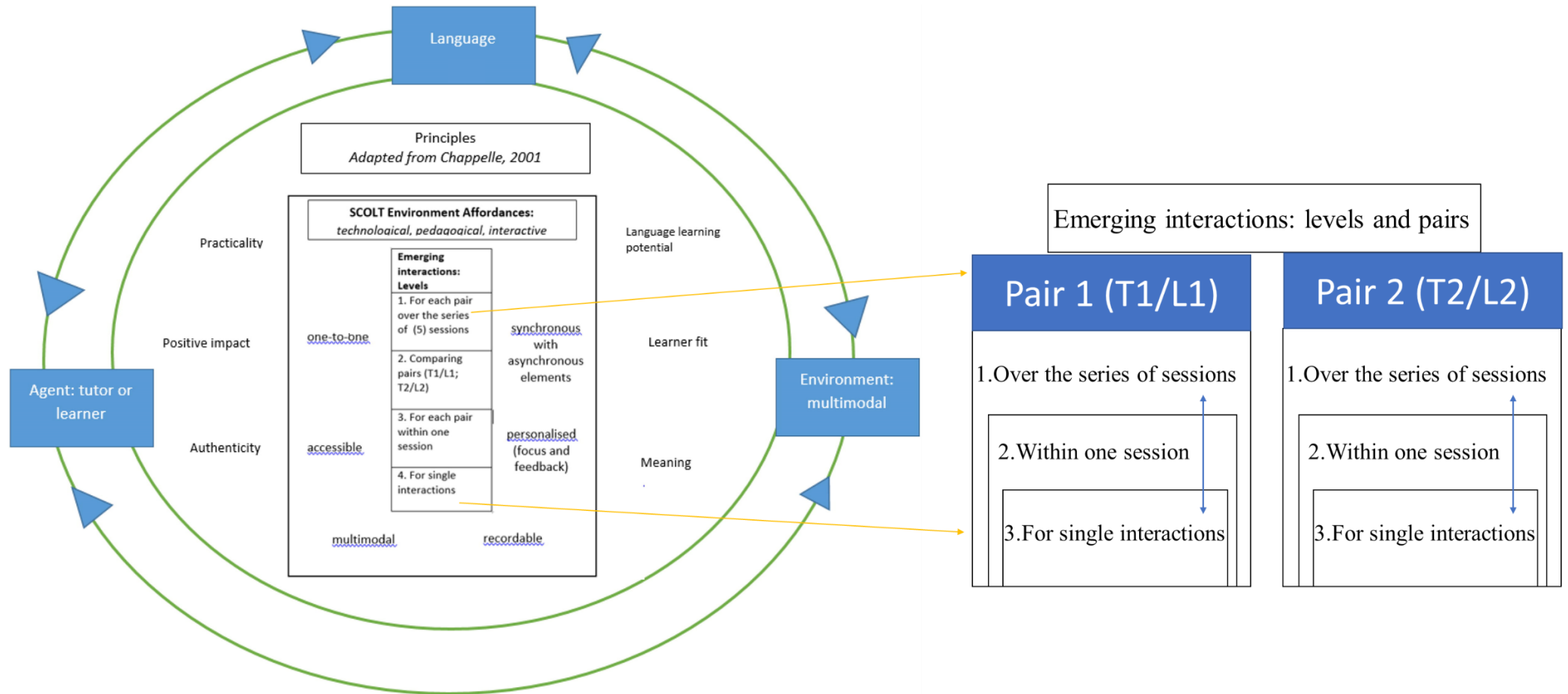
In addition, in line with the research findings presented in this study, it becomes evident that listening capability plays a fundamental role in WTCC. Building upon these insights, a new definition of WTCC emerges (see Section 9.5), capturing an individual's volitional readiness not only to engage with the context but also to actively listen and actively participate in the discourse at a specific moment with individuals. This expanded definition highlights the importance of receptive skills, such as listening, in the complex dynamics of communication and underscores their integral role in shaping individuals' willingness to engage and communicate effectively.

Another aspect of the theoretical implications of this study is that WTC research has been extended to online Chinese language learning contexts. There have been very few studies into WTC in this context (Liu, 2017, 2018). These studies recognised WTCC as a trait-like predisposition and explored WTC in a quantitative way, but did not reveal the understanding of the dynamics of WTCC. The current study enriches the understanding of the intricate dynamics of learners' WTCC by providing detailed descriptions of the online communication context and excerpts from their interactions. Previous studies which used a static presentation of WTC along with quantitative measures are crucial in contributing to our knowledge of the significance of these influential domains in shaping WTC (e.g., Liu, 2017, 2018; MacIntyre et al., 2001; Peng & Woodrow, 2010; Weaver, 2005). However, the results of this study challenge a simple classification of the factors in isolation and their direct causal relationship with L2 WTC separated from the actual contexts. In other words, the identified factors in previous studies or in my study only become prominent and make meaning in the communicative contexts in which language learners engage with their L2 WTC. In this

way, this study provides an in-depth understanding of the intricate and contextually-embedded complexity of WTCC in the online context of those interactions.

Figure 10.1

Nested emerging interactions between tutors and learners in SCOLT



Lastly, this is the first study to investigate how tutors and learners perceived learners' WTCC moment by moment, following MacIntyre and Legatto's (2011) recommendation for researchers to consider perceptions about learners' WTC from different parties by using the idiodynamic method. Combining quantitative WTCC ratings of learners by the learners themselves and by their tutors, along with both parties' rationale for changes in WTCC, this study reveals the differences and similarities of both parties' perceptions that underlie communication processes. In doing so, it systematically investigates and provides evidence of the teachers' views and interpretations to gain a more holistic and in-depth understanding of the complexity of learners' WTCC phenomena.

10.3 Methodological Contributions

The longitudinal qualitative case study design makes several methodological contributions to research in learners' WTCC. First, the use of multiple dynamic methods, i.e., Session-based WTCC scale, ESM, and idiodynamic method, in the exploration of the dynamics of learners' WTCC over a range of different timescales can also be applied for future research in different contexts. Second, multi-method analysis, by combining data from dynamic methods with the video recordings and qualitative data (i.e., stimulated recall interview, journal), allows for a contextualised analysis of both inter and intra-individual variability in WTCC as well as main drivers or inhibitors of these dynamics at different timescales (activity, session, project). The combinations of multiple data reinforced the importance of triangulation of self-reported perceptions and video recordings of SCOLT-WTCC sessions in demonstrating dynamism, and the contextually-embedded nature of WTCC in the online Chinese learning context, making it possible to understand how learners make sense of their WTCC in such a context. The inclusion of multiple data sources enabled a focused analysis of the dynamics of learners' WTCC at a particular moment during communication (MacIntyre, 2007).

Third, one critical methodological significance of this study was its longitudinal nature. The longitudinal research design not only enabled the participants to get accustomed to the SCOLT-WTCC context and each other, but it also allowed me as a researcher to systematically collect and analyse data about the dynamics of learners' WTCC taking place longitudinally. Therefore, it allowed for a holistic and situated understanding of dynamics in WTCC over time, especially at different stages of the dynamic and complex interplay of variables driving periods of stability or fluctuations, rather than being limited to linear, cause-effect relationships between isolated variables. In addition, the longitudinal research design made it possible to encompass multiple dynamic methods in this study, by which the dynamics in learners' WTCC could be revealed at different timescales. Larsen-Freeman and Cameron (2008b) have particularly supported this type of approach for researchers, combining different timescales to investigate dynamic systems, of L2 WTC, in this case, to get the full picture.

Fourth, understanding the dynamics of learners' WTCC in an online class or synchronous computer-mediated communication (SCMC) context is still in its fledgling state. Only one study, so far as I am aware, has focused on the dynamics of learners' WTC in such a context (Lee & Liu, 2022), despite the fact that the COVID-19 pandemic crisis has accelerated the adoption of online teaching. In this sense, this study makes a timely and significant contribution to the WTC literature in the Chinese and SCMC context. Meanwhile, the study demonstrates that dynamic methods, such as ESM, and the idiodynamic method, are useful analytical approaches for comprehending the fluid and dynamic nature of L2 WTC in a SCMC context.

10.4 Pedagogical Implications

This research suggests several practical points for practitioners and learners with an aim to nurture Chinese language learners' WTC and improve their communicative competence, including listening skills, in SCMC contexts. Above all, it is important for

practitioners to understand the dynamic and complex nature of learners' WTC and be tolerant and supportive of how and why learners may experience communication difficulties and struggles. In other words, teachers should consider temporal and contextual issues when thinking about learners' WTCC and be well-informed about how WTCC may be strengthened or weakened by the joint effects of multiple interrelated variables. There is need to incorporate the understanding of WTC and its dynamic nature into future teacher training and professional development programs. Teachers should be equipped with the knowledge to not only encourage students' language development, but also create an environment where students feel safe, comfortable, and motivated.

Moreover, identifying the factors or situations most relevant to individual learners is a worthwhile use of time, not only for the benefit of the tutors but also for the learners themselves. The methods used in this study, such as journals and StRI, provide insight into the situations or factors that shape learners' WTCC, particularly those that recur. The numerous influential variables and their dynamic interactions that emerged from the study suggested that teachers should pay attention to influential factors that promote and inhibit learners' WTCC and, more importantly, how learners' agency mediates the impact of these factors on their WTCC. For learners, the significance of their reflection in guiding their WTCC hinted that learners could make adjustments and improvements to their strategies to deal with tensions and constraints or to amplify the impacts of facilitating factors. Therefore, there is a need for teachers to help students to explore their ambivalence and driving/restraining forces, probably through a variety of forms of interactions such as interviews, journals, and conversations together with teachers' or their peers' feedback to students. Similarly, tutors and learners can also utilize video recordings to gain valuable insights into their own ways of communication, identify areas for improvement, and reflect on their practice.

In addition, comparing tutors' and learners' perceptions about learners' WTCC enables

teachers to realise the discrepancy between what they observe and perceive as learners' WTCC and what WTCC learners experience and undergo during communication. This reminds practitioners to try making sense of WTC from their students' perspective and be cautious about making simple evaluations according to learners' apparent behaviours.

The findings of this study provide empirical evidence for the benefits of the negotiated curriculum in exploring learners' preferences and needs and building rapport. Given the realities of teacher-learner relationships in distance education, SCOLT-WTCC in this case, where learners seemed unready or unsure about how to contribute to the negotiation of the curriculum initially, perhaps more overt guidance could be given for this. For example, a further question in the questionnaire which began with an indication of the importance of topic interest and knowledge, and invited them to suggest topics they would like to talk about would be help. Then in the first session, they would be mentally prepared and could participate further in this aspect. When learners hesitate to make contact or report their preferences in spite of being encouraged to do so, teachers need to be proactive and patient in establishing contact and maintaining the relationship, and drawing out the learner experience or needs to develop a tailored curriculum.

Moreover, keeping the dynamic nature of learners' WTCC in mind, learners' needs are not static but emerge constantly in the learning process. Thus, teachers need to develop their awareness of the change in learners' learning expectations along with the fluctuations in their WTCC, and make a timely adjustment to better meet learner needs. Specifically, teachers shall be supported to gain increased awareness and ability to make use of the affordances and constraints of online language learning environments to create and maintain a social presence. For example, if there is no screen-sharing function available in a certain digital platform, teachers may consider how to properly demonstrate their teaching content in the absence of the readily established joint focus that screen-sharing allows and the impact of that absence of learners' perceived social

presence and their WTCC.

Finally, the study also sheds light on the current challenge of language teaching in tertiary education, which is not only a New Zealand-based issue, but an internationally recognised struggle for accommodating the diverse needs of language learners. Focusing on Chinese language teaching and learning, this study provides empirical evidence for the benefits of implementing SCOLT-WTCC in enhancing learners' WTCC over time. All learners in this study reported their enjoyment of this project, characterised by a high level of personalisation, support, and rich opportunities for the immersive experience of language use. The SCOLT project is a practical and effective addition to meeting distance Chinese language learners' diverse needs in New Zealand, and could be replicated by partnerships between other institutions which teach languages and train the future teachers of those languages. It is also vital that such a project contributes to the pandemic-impacted educational transformation in the 21st Century.

10.5 Limitations and Recommendations

Some limitations of this study need to be considered. As with other qualitative studies, this investigation as a longitudinal case study was limited to its scope with a small group of learner participants (n=4). The focus of the study was on learners' WTC in a specific online Chinese language learning project, which on the one hand, offered an in-depth analysis and a rich contextualised description and explanation for each learner's WTC development in Chinese. However, on the other hand, it suggests that despite the results having limited generalisability, this study, as an exploratory study, lays the groundwork for future studies to consider including more case studies to validate and enrich the findings. In addition, I would suggest the inclusion of different Chinese language learning contexts and instruction in future research, such as one-to-many online classes.

In addition, the involvement of the learners' background information and trait WTCC, even though it was relatively limited and not the focus of the current study, nevertheless provided valuable insights into understanding learners' WTCC. This study only investigated one round of the SCOLT-WTCC project, emphasising the dynamics of learners' WTCC in multiple timescales. In fact, learners' motivation for learning Chinese recorded in the questionnaire provided insightful explanations for their WTCC, particularly its dynamic interplay with engagement over time. Therefore, it would be meaningful to include broader sociocultural contexts in the study itself, such as learners' Chinese learning experiences and involvement in extracurricular activities, to background the micro-level communication behaviours and intentions of learners in future studies.

Furthermore, this study provided insights into dynamic changes of WTC attending to different levels and timescales, which suggests that researchers should take a step further to explore the developmental trajectories of learners' WTCC through a more longitudinal time window. By December 2022, six rounds of SCOLT sessions had been carried out, and some participants had attended several rounds. It would be worthwhile for researchers to investigate those students who are willing to continue attending the SCOLT program and reveal their WTCC in different rounds of SCOLT sessions to come up with a more comprehensive and dynamic picture of changes in WTCC. Moreover, CDST provides a very useful and valuable perspective in researching and capturing situatedness, dynamics, and complexity of learners' WTCC during communication, which implies that future research will shed more light on learners' WTCC and educational implications using CDST.

The current research has also pointed to both methodological limitations and directions for the study of WTCC in future. I adopted the mainstream CDST-informed method, the idiodynamic method (MacIntyre & Legatto, 2011), to investigate the dynamics of individual learners' WTCC. Although several practical issues arose when employing

the idiodynamic method (see Section 9.3.3), this method enabled me to conduct a study of WTCC, which allowed dynamics and complexity-informed interpretations while being firmly embedded in actual participation in communication. There is a need for future research to upgrade this rating software to address the difficulties reported in this study. In fact, Ducker (2020) has developed a new version of idiodynamic rating software to be not only for laboratory-based research but also used in other contexts, such as classroom settings; it became available to the public only after I completed most of the data collection in December 2020. Future researchers could usefully employ this updated version idiodynamic software to investigate the CDST-informed research in the broader domain of SLA.

Figure 10.2

The adjustments of the new version of idiodynamic software (Ducker, 2020, p. 81)

1. Video and ratings controller were incorporated into one window constituting a video player with mouse-controlled 'up' and 'down' buttons at the bottom of the screen.
2. Ratings were from -10 to +10 rather than -5 / +5. This would allow for representation of larger changes in WTC, and it simplifies comparisons with trait- and situational-WTC ratings elicited from pre-interview surveys.
3. A hold function that would maintain a consistent rating if a student wished to indicate no change in WTC.
4. A 2.5-second delay to the automatic-return-to-zero function in order to give the users better control over the changes; it was found during trialing that the automatic function was forcing users' scores down at times when they did not wish to reduce their score.
5. A score reversal button that would allow a user to flip their current rating score from positive to negative; this button was included to allow for sudden changes in WTC ratings that the original software did not allow for.

Another limitation of the idiodynamic method concerns a fading affect bias caused by the time elapsed between each investigated session, the stimulated recall ratings, and the stimulated recall interview (StRI) procedure (MacIntyre & Legatto, 2011). To

reduce this bias, despite there being practical constraints, in particular, time differences between me and my learners (four or five hours with daylight saving schedules), most of the participants completed the ratings and StRI within 48 hours of the session under investigation. Ella was not able to attend the StRI on time because she was sick, but she completed her ratings within two days after Session 6. While there was no noteworthy issue with the results, there is a need for future researchers to be cautious that the accuracy rate of the recall would progressively decline as more time elapsed (Mackey & Gass, 2016).

In addition, video recordings of the SCOLT-WTCC sessions investigated provided participants with an original situation with a large number of cues to relive the situation and elicit accurate and in-depth reflections. However, it has also been observed that video recordings could create a feeling of embarrassment: when Tony looked at his performance on the screen, he admitted that he rated his performance during Session 10 rather than his actual WTCC at the time. A possible way to avoid this would have been to make clear in the instructions what construct they need to measure before each measurement.

Finally, the main limitation of the experience sample method used later in this study is that it intrusively influenced the flow of conversation to some extent due to ESM ratings that occurred during communication. On the other hand, learners' ratings captured by this type of method were more accurate in reflecting their intention in communication than those in the idiodynamic method based on learners' reports, as it requires participants to report their WTCC during the session itself. This study employed the two methods, ESM and idiodynamic method, in order to mitigate the negatives of each and allow a balanced view of the dynamics of WTCC at different timescales; it supports Hiver and Al-Hoorie's (2016, p. 745) argument that the timescale at which a given construct is examined influences "the type of questions appropriate for exploration, the types of evidence that can be collected, and ultimately the theoretical and empirical

advances made”. This would be a fruitful area for further study by employing these methods to obtain a more situated and contextualised understanding of the dynamics of other constructs over different timescales.

Despite these limitations of the methods used, all participants willingly invested their time to support this project. In particular, all participants made it possible that they completed all idiodynamic ratings and most StRI within the 48-hour recommended period (see Appendix N), although they had other demands on their time. For this reason, I would like to express my gratitude to my participants.

10.6 Closing Remarks

On reflection, I am confident that by adopting the longitudinal qualitative approach with multiple methods to study learners’ WTCC, I have achieved my aim to better understand how learners’ WTCC fluctuate at different timescales, and how teachers and learners perceive learners’ WTCC. It has captured the dynamics and complex nature of learners’ WTCC across different timescales, the (mis)match of teachers’ and learners’ perceptions of learners’ WTCC, and the multifaceted factors that constituted the emergence of learners’ WTCC at a given time. The examination of the (in)congruence between teachers’ and learners’ perceptions could potentially provide better insights into the professional development of the SCOLT project teachers and the negotiated curriculum development of online language learning programs.

This study has also demonstrated the value of online Chinese language learning, especially to help achieve individualised learning. It sheds light on the potential of online language learning that has maximised meaningful and effective communicative competence opportunities for learners, who in this case are New Zealand-based, and meanwhile, supported China-based trainee teachers of Chinese for their online professional development, emphasising pedagogical and digital literacy skills. Learners

from this study experienced tailored curricula designed to meet their diverse needs. This approach of designing for language learning, particularly in technology-mediated, multimodal contexts, has marked a new, innovative, forward-looking future of 21st Century language education.

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Appendices

Appendix A Learner questionnaire

Part 1

Language Profile

I would appreciate it if you could take several minutes to complete this questionnaire so that I can know more about your experience learning Chinese. This will help your tutor know how to help you, and it will also help me with our research. Please answer these questions based on your experience of learning Chinese so far.

1. **Name:** _____ **Gender:** Male / Female **Age:** _____

(Please note, if we use this information in our research, I will not use your name or any information that can identify you, but we would like to be able to match your information with your intended tutor.)

2. What is your mother tongue?

Have you learnt any other languages (apart from your mother tongue and Chinese)?
Yes/No

If so, which?

3. Are you a student? If so, what is your current major?

And minor?

4. Are you involved in what kind of profession, career or work?

What kind of profession, career or work do you envisage for yourself in the next five years?

In an ideal world, what kind of work would you like to do?

5. Have you ever visited a country where Mandarin is the main language? Where? For how long?
6. How important to you are the following reasons for learning Chinese?

Circle a number for each option in the order of its importance for you.

	I am studying Chinese...	4= very important 3= important 2=may be important, sometimes, but not often 1 = not important at all			
a	Because I am interested in the Chinese language	1	2	3	4
b	Because I am interested in Chinese culture	1	2	3	4
c	because I have friends who speak Chinese	1	2	3	4
d	because it will be useful for my present (or future) employment	1	2	3	4
e	because I would like to get to know Chinese people	1	2	3	4
f	because I want to travel to China	1	2	3	4
g	Other reasons:				

7. How long have you already learnt Chinese? What was your previous experience of learning Chinese?
8. Would you describe yourself as extrovert, introvert or neutral?
9. Have you studied by distance before? If so, which subjects?

Part 2

Willingness to communicate (WTC) SCALE in Chinese

Directions: WTC is the most basic orientation toward communication. Almost anyone is likely to respond to a direct question, but many not *continue or initiate* interaction. This instrument measures your willingness to initiate communication. If you are willing to communicate, it means you feel comfortable and ready to enter into an interaction with the person you are talking to (in this case, your online tutor). It means that you are willing to participate – you are happy to listen and try to understand what they are saying, and then to say something in Chinese in response, and you feel comfortable about that. The questionnaire I will ask you to fill in is trying to find about how you feel in general in the following situations.

Please indicate the percentage of time (0% to 100%) you would choose to communicate in each type of situation. Indicate in the space at the left of the item what percent of the time you would choose to communicate.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
Never willing			Sometimes willing				Always willing				
_____											1. Present a talk to a group of strangers in Chinese.
_____											2. Talk with an acquaintance while standing in line in Chinese.
_____											3. Talk in a large meeting of friends in Chinese.
_____											4. Talk in a small group of strangers in Chinese.
_____											5. Talk with a friend while standing in line in Chinese.
_____											6. Talk in a large meeting of acquaintances in Chinese.
_____											7. Talk with a stranger while standing in line in Chinese.
_____											8. Present a talk to a group of friends in Chinese.
_____											9. Talk in a small group of acquaintances in Chinese.
_____											10. Talk in a large meeting of strangers in Chinese.
_____											11. Talk in a small group of friends in Chinese.
_____											12. Present a talk to a group of acquaintances in Chinese.

_____ 13. Use computer-mediated communication to address an acquaintance in Chinese.

_____ 14. Use computer-mediated communication to address my acquaintances as well as strangers in Chinese.

_____ 15. Use CMC to address whoever is interested in what I want to communicate in Chinese.

Part 3

Self-Perceived Communication Competence (SPCC) SCALE

Directions: Below are 12 situations in which you might need to communicate. People's abilities to communicate effectively vary a lot and sometimes the same person is more competent to communicate in one situation than in another. Please indicate how competent you believe you are to communicate in each of the situations described below. In this scale, I am asking you to think about *how well* you believe you can do it, not how willing you would be.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Completely incompetent Moderately can do competent

- _____ 1. Present a talk to a group of strangers in Chinese.
- _____ 2. Talk with an acquaintance while standing in line in Chinese.
- _____ 3. Talk in a large meeting of friends in Chinese.
- _____ 4. Talk in a small group of strangers in Chinese.
- _____ 5. Talk with a friend while standing in line in Chinese.
- _____ 6. Talk in a large meeting of acquaintances in Chinese.
- _____ 7. Talk with a stranger while standing in line in Chinese.
- _____ 8. Present a talk to a group of friends in Chinese.
- _____ 9. Talk in a small group of acquaintances in Chinese.
- _____ 10. Talk in a large meeting of strangers in Chinese.
- _____ 11. Talk in a small group of friends in Chinese.
- _____ 12. Present a talk to a group of acquaintances in Chinese.
- _____ 13. Use computer-mediated communication to address an acquaintance in Chinese.
- _____ 14. Use computer-mediated communication to address my acquaintances as well as strangers in Chinese.
- _____ 15. Use CMC to address whoever is interested in what I want to

communicate in Chinese.

Part 4

The Chinese Speaking Anxiety SCALE

DIRECTIONS: This time, I am trying to find out about how anxious you feel in the below 12 situations in which you might need to communicate. Please indicate how much you agree with the following when communicating in Chinese.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
not at all			Slightly		Moderately				Extremely	
anxious			anxious		anxious				anxious	
_____	1.	Present a talk to a group of strangers in Chinese.								
_____	2.	Talk with an acquaintance while standing in line in Chinese.								
_____	3.	Talk in a large meeting of friends in Chinese.								
_____	4.	Talk in a small group of strangers in Chinese.								
_____	5.	Talk with a friend while standing in line in Chinese.								
_____	6.	Talk in a large meeting of acquaintances in Chinese.								
_____	7.	Talk with a stranger while standing in line in Chinese.								
_____	8.	Present a talk to a group of friends in Chinese.								
_____	9.	Talk in a small group of acquaintances in Chinese.								
_____	10.	Talk in a large meeting of strangers in Chinese.								
_____	11.	Talk in a small group of friends in Chinese.								
_____	12.	Present a talk to a group of acquaintances in Chinese.								
_____	13.	Use computer-mediated communication to address an acquaintance in Chinese.								
_____	14.	Use computer-mediated communication to address my acquaintances as well as strangers in Chinese.								
_____	15.	Use CMC to address whoever is interested in what I want to communicate								

in Chinese.

Part 5

MOTIVATION SCALE

Directions: Please indicate your opinion after each statement that best describes the extent to which you believe the statement applies to you.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Very little **Very much**

1. If I were to rate how hard I work at learning Chinese, I would characterise it as: _____
2. If I were to rate my desire to learn Chinese, I would say that it is: _____
3. If I were to rate my attitude towards learning Chinese, I would say that it is: _____

Appendix B Session-based WTCC scale

Please indicate the level of your WTC by circling the number that most corresponds to your feeling for this SCOLT session.

0	10	20	30	40	50	60	70	80	90	100
Very little										Very much

Appendix C Stimulated recall interview

General questions

1. How did you feel about today's session?
2. Did you feel like talking in today's class? Why/Why not?


Instructions: what we are going to do now is to play the recordings from the session. I am interested in what you were thinking at the time you were talking. What I would like you to do is choose two moments that you feel most willing or least willing to communicate. I will play 30s before and after that moment and ask you what you were thinking, what was on your mind at the time. If you want to tell me something about what you were thinking, you can ask me to pause the video. If I have a question, I'll push pause and ask you to talk about that part of the recording.

Stimulated-recall questions:

1. Why you choose this moment?
2. I saw your WTCC decreased/increased dramatically when _____.
 - ✧ Can you tell me why the change occurred? What factors do you think affect your WTC?
 - ✧ Can you tell me what you were thinking back then?
 - ✧ How did you feel at that moment?




Appendix D Ethics approval document

Human Ethics Notification - 400021961 ☆

From: **humanethics** <humanethics@massey.ac.nz> 

Date: Thursday, Jan 16, 2020 8:42 AM

To: **Huan.Huang.5** <Huan.Huang.5@uni.massey.ac.nz>; **C.J.White** <C.J.White@massey.ac.nz>; **G.R.Skyrme** <G.R.Skyrme@massey.ac.nz>

Cc: **humanethics** <humanethics@massey.ac.nz>   

Tips: Your email address isn't in the "To", you are the Bcc recipient of the message.

HoU Review Group

Ethics Notification Number: 400021961
Title: The Dynamics of Willingness to Communicate in Synchronous Chinese Online Language Teaching and Learning

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Professor Craig Johnson, Director (Research Ethics), email humanethics@massey.ac.nz. "

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish require evidence of committee approval (with an approval number), you will have to complete the application form again answering yes to the publication question to provide more information to go before one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

You are reminded that staff researchers and supervisors are fully responsible for ensuring that the information in the low risk notification has met the requirements and guidelines for submission of a low risk notification.

If you wish to print an official copy of this letter, please login to the RIMS system, and under the Reporting section, View Reports you will find a link to run the LR Report.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and
Director (Research Ethics)

Appendix E Learner information sheet



The Dynamics of Willingness to Communicate in Synchronous Chinese Online Language Teaching

Information Sheet

August 2019

Dear student

My name is Huan Huang and I am a PhD candidate in the School of Humanities at Massey University. This research will be conducted for fulfilment of the requirements for the degree of Doctor of Philosophy in Applied Linguistics.

This current research belongs to the Synchronous Chinese Online Language Teaching Project (SCOLT) project undertaken by the Massey University / Beijing Language and Culture University (BLCU) Joint Research Centre in Applied Linguistics. This has brought Massey learners of Chinese and BLCU tutors and tutor trainees together for one-to-one online learning opportunities since September 2016. I was one of the online Chinese tutors. In my research, I am going to look at students' willingness to communicate (WTC). Sometimes when students are learning a second language, they feel very willing to have a go and try speaking, but sometimes they seem to be reluctant to do this. WTC can change from moment to moment, in response to factors like the language being used, or the topic or the task. I want to investigate the multiple potential factors affecting WTC over time.

Project Procedures

I would like to invite Chinese language learners in New Zealand to take part in the SCOLT project, which has five tutorial sessions with Chinese language teachers over a period of approximately two weeks. You will have opportunities to communicate with Chinese native speakers, I believe this will be beneficial for your oral Chinese. I hope this will give you an excellent opportunity to improve your Chinese, by speaking with a native speaker tutor in a one-to-one situation. And this study will in no way impact on their Massey course grades. For my project you will be asked to:

- Fill out a questionnaire before and after SCOLT twice in total;

- Join online one-to-one teaching for 5 sessions, of approximately 20 minutes each and participate in a range of communicative tasks;
- After each of the final four sessions, to watch a video of the completed session and, using special software, rate how willing you think you felt to communicate as the tasks progressed during the session.
- Talk to me in a follow-up interview about how you rated your WTC, and what caused you to feel more or less willing to communicate.

Each SCOLT session will be videotaped and the interviews will be audiotaped with your consent.

Participant's Rights

You are a volunteer in this research, so you have the right to:

- decide not to join;
- withdraw at any time up until data analysis;
- ask any questions about the study during SCOLT;
- decline to answer any question;
- ask the researcher to turn off the recorder during interview;
- check and make any change to the transcription of your interview;
- decide whether your name or pictures with your image can be presented in research report and thesis;
- be given a summary of the project findings when it is completed.

Project Contacts

Please contact us if you have any questions.

Researcher

Huan Huang: H.Huang1@massey.ac.nz

Supervisors

Professor Cynthia White: c.j.white@massey.ac.nz

Dr. Gillian Skyrme: g.r.skyrme@massey.ac.nz

Li, Michael: S.Li.1@massey.ac.nz

Appendix F Teacher information sheet



The Dynamics of Willingness to Communicate in Synchronous Chinese Online Language Teaching

Information Sheet

August 2019

Dear teacher

My name is Huan Huang and I am a PhD candidate in the School of Humanities and social sciences Massey University (MU). I am writing to invite you to participate in a research project which will be conducted for fulfilment of the requirements for the degree of Doctor of Philosophy in Applied Linguistics.

This current research belongs to the Synchronous Chinese Online Language Teaching (SCOLT) project undertaken by the Massey University / Beijing Language and Culture University (BLCU) Joint Research Centre in Applied Linguistics. This has brought Massey learners of Chinese and BLCU tutors and tutor trainees together for one-to-one online learning opportunities since September 2016. I was one of the online Chinese tutors. In my research, I am going to look at students' willingness to communicate (WTC). Sometimes when students are learning a second language, they feel very willing to have a go and try speaking, but sometimes they seem to be reluctant to do this. WTC can change from moment to moment, in response to factors like the language being used, or the topic or the task. I want to investigate the multiple potential factors affecting WTC, and the teachers' perceptions of WTC of their students. This means we want to know the teachers' intuition to perceive the students' WTC state.

Project Procedures

I would like to invite Chinese language teachers to take part in the SCOLT project, which has five tutorial sessions with Chinese language teachers over approximately two weeks. For my project you will be asked to:

- Conduct online one-to-one teaching for five sessions, of 20 minutes each and record each session;
- Watch a recording of each of the last four sessions, and using special software, record your assessment of changes in the student's willingness to communicate through the course of the lesson;
- Participate in stimulated recall interviews with me to discuss these recorded assessments of WTC.

Each SCOLT session will be videotaped and the interviews will be audiotaped with your consent. The interview transcripts will be offered to you.

Participant's Rights

You are a volunteer in this research, so you have the right to:

- decide not to join;
- withdraw at any time up until data analysis;
- ask any questions about the study during SCOLT;
- decline to answer any question;
- ask the researcher to turn off the recorder during interview;
- check and make any change to the transcription of your interview;
- decide whether your name or pictures with your image can be presented in research report and thesis;
- be given a summary of the project findings when it is completed.

Project Contacts

Please feel free to contact us if you have any questions.

Researcher

Huan Huang: H.Huang1@massey.ac.nz

Supervisors

Professor Cynthia White: c.j.white@massey.ac.nz

Dr. Gillian Skyrme: g.r.skyrme@massey.ac.nz

Li, Michael: S.Li.1@massey.ac.nz

Appendix G Consent form



The Dynamics of Willingness to Communicate in Synchronous Chinese Online Language Teaching and Learning.

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have understood the nature of the study. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the online teaching/learning, interviews and teaching sessions being recorded.

I wish/do not wish to have my recordings and transcriptions returned to me.

I agree/do not agree to the use of screenshots showing my face in the final report.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

Date:

Full Name - printed

Appendix H Operational definition of WTCC

Thank you so much for agreeing to participate in this research.

As I mentioned in my information letter, this project is designed to find out about what makes it easy for learners of Chinese to talk in Chinese, and what might make them not want to communicate. This is known as *willingness to communicate (WTC)*. I am asking about this because many teachers believe that is important for learners to use their new language in order to learn it well.

Just to make sure that you know what I am asking: if you are willing to communicate, it means you feel comfortable and ready to enter into an interaction with the person you are talking to (in this case your online tutor). It means that you are willing to participate – you are happy to listen and try to understand what they are saying, and then to say something in Chinese in response, and you feel comfortable about that, or if you feel a little bit anxious, you still want to have a go.

We think about this as an overall trait (in general, do you enjoy talking with other people? And as a learner of Chinese, do you enjoy talking with someone else in Chinese or does it make you feel shy?) We also think about it in relation to specific tasks you do. Do you feel comfortable when you are talking about yourself and your everyday life, but maybe not when you are having a formal discussion about something like climate change, for example?

The first questionnaire I asked you to fill in is trying to find about how you feel in general. When I ask you to use the idiodynamic software as you watch the recordings of your sessions, I will be asking about how you felt in relation to the tasks you did with your tutor, the second kind of WTC.

Appendix I Learner recruiting flyer

Participants Wanted



线上中文一对一
Online Chinese 1 on 1

This study aims to improve Chinese language learners' willingness to communicate (WTC) in Chinese

If you are a Chinese learner,
you want to practice your Chinese,
you want to know more about Chinese culture or other stuff,
...

there are **5 online Chinese** classes waiting for you

free, one-to-one personalized

Our tutor **experienced Chinese teacher,
Chinese native speaker**

Please feel free to join us:

Email: H.Huang1@massey.ac.nz

WeChat: [REDACTED]

What you need to do

- Attend 3 pre-class training sessions
- Fill out a questionnaire
- Attend 5 online classes (20-25mins/ each)
- Rate your WTC using a specified software and attend interviews for four classes (45-55 mins/each)

Appendix J Tutor recruiting flyer

汉语教师招募



线上中文一对一
Online Chinese 1 on 1

本研究关注学习者线上课堂汉语交际意愿的变化，探索影响学习者交际意愿的因素。

如果你：

会使用ZOOM,
想学习如何提高学习者线上汉语的交际意愿
想增加汉语教学经验；

一共五节课，每节课20-30分钟
一对一教学（学习者为新西兰人）
与学生商讨课程内容和时间

欢迎加入：

邮件地址: H.Huang1@massey.ac.nz

微信: [REDACTED]

你需要做：

参加三次课前培训；
承担五节课的教学任务并录屏；
评判学习者的交际意愿（四次）；
接受四次采访

Appendix K WTCC grid

In Class WTC Grid

In this part, I would like to know your willingness to communicate at a particular moment in response to a beep set by your tutor. Please indicate the level of WTC using a scale from -5 (not at all) to +5 (very much) in the below grid.

	5min	10min	15min	20min	25min	30min
5	5	-1				
4						
3						
2						
1						
0						
-1						
-2						
-3						
-4						
-5						

Appendix L Journal

In-Class WTC Journal

The following journal has been designed to gain a better understanding of your communication tendencies and feelings IN THIS CLASS AT THIS POINT IN TIME.

You can recall these situations based on the WTC grid and your video recording.

1. Please recall one or two situations in which you were most willing to communicate in Chinese. (describe what happened, why you wanted to communicate, and how you felt about that experience)
2. Please recall one or two situations in which you were most unwilling to communicate in Chinese. (describe what happened, why you wanted to communicate, and how you felt about that experience)
3. Please recall one or two situations in which you were most willing to communicate in Chinese, but you did not talk, and vice versa. (describe what happened, why you did not talk, and how you felt about that experience)
4. Enumerate factors that influenced your willingness to communicate and your feelings in this class (such as topic, tutor, technology, your state, communication competence, feelings, etc.). Please list factors and your explanation how they affected your willingness to talk

Appendix M Tutor recruiting flyer English version

Participants Wanted



线上中文一对一
Online Chinese 1 on 1

This study aims to investigate Chinese language learners' willingness to communicate (WTC) in online Chinese environment

If you
can use ZOOM;
want to learn how to improve learners' WTC in online environment;
want to increase your Chinese teaching experience.

there are **5 online Chinese** classes waiting for you

one-to-one personalized

Our learner: New Zealanders

negotiate course content and time with learners

Please feel free to join us:

Email: H.Huang1@massey.ac.nz

WeChat: [REDACTED]

What you need to do

Attend 3 pre-class training sessions
Fill out a questionnaire
Attend 5 online classes (20-25mins/ each)
Rate learners' WTC using a specified software and attend interviews for four classes (45-55 mins/each)

**Appendix N Information of the dates of the idiodynamic sessions
and idiodynamic methods conducted by each participant**

Idiodynamic Session	Date	Ella		Yating	
		Ratings	StRI	Ratings	StRI
Session 2	2020.11.18	2020.11.19	2020.11.20	2020.11.19	2020.11.20
Session 6	2020.12.2	2020.12.3	2020.12.8	2020.12.3	2020.12.3
Session 10	2020.12.16	2020.12.17	2020.12.17	2020.12.17	2020.12.17
		Tony		Jiyao	
Session 2	2020.11.18	2020.11.19	2020.11.21	2020.11.20	2020.11.20
Session 6	2020.12.2	2020.12.2	2020.12.3	2020.12.2	2020.12.3
Session 10	2020.12.17	2020.12.18	2020.12.18	2020.12.17	2020.12.19
		Dan		Chaonan	
Session 2	2020.11.19	2020.11.20	2020.11.22	2020.11.19	2020.11.21
Session 3	2020.11.21	2020.11.23	2020.11.23	2020.11.21	2020.11.23
Session 4	2020.11.25	2020.11.26	2020.11.26	2020.11.25	2020.12.26
Session 5	2020.11.27	2020.11.28	2020.11.28	2020.11.27	2020.11.28
		Vicky		Yating	
Session 2	2021.5.5	2021.5.6	2021.5.6	2021.5.5	2021.5.7
Session 6	2021.5.22	2021.5.22	2021.5.23	2021.5.22	2021.5.23
Session 10	2021.6.11	2021.6.11	2021.6.12	2021.6.11	2021.6.12

Appendix O Peter MacIntyre's response about how to juxtapose communicative talk with idiodynamic ratings

Dear Huan,

We simply used the time on the video (in seconds) and the software produced one rating per second, so we matched them up using the time stamp in the Excel file.

You should be sure that your computer is getting one rating per second and make any necessary adjustments. If the video is 60 seconds you should have 60 ratings in the Excel file. If not it might be possible to find the start of the change in ratings (when the respondent starts clicking) and use that moment at the beginning point to match up the ratings and the time on the video.

There must be some moment in the video that you know matches with the ratings and you can start with that point. If you have many more or many fewer ratings than 1 per second, you might have to adjust the ratings to that timescale (e.g if you have three ratings between 50 and 51 seconds, you can average them to have a single rating represent that moment in the video).

Please let me know if this helps.

Best wishes for success in your research,

Peter