Collaboratively Processing Written Corrective Feedback through Co-Constructed Texts

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Finally, I dedicate this thesis to my dear wife. Your support and patience throughout this journey was crucial in helping me bring it to completion. I also dedicate this thesis to my parents. Your support and encouragement throughout all of my educational pursuits has been incredible.
Abstract

This study explores how four adult English language learners in Melbourne experienced the process of collaboratively processing written corrective feedback (WCF) on co-constructed texts. This thesis continues and expands on previous research set within a sociocultural theory (SCT) framework by investigating learner experiences of WCF through the lens of activity theory (AT), and exploring how co-constructed knowledge is utilised in new, non-repeat writing and speaking tasks.

Through a case study approach, this research aims to provide rich and detailed insights into the ways participants experience collaboratively processing WCF through jointly produced texts. It describes how knowledge is co-constructed, illuminates factors that impact the learning potential of WCF, and explores how knowledge generated via WCF is used by participants when individually carrying out new, non-repeat writing and speaking tasks.

Participants took part in a series of ten English language lessons, during which they were video-recorded on four occasions as they collaboratively processed WCF. Through the use of retrospective interviews, participants identified instances of knowledge being co-constructed while collaboratively processing the WCF by watching the video-recordings. Participants were then provided with several opportunities to use this knowledge in new, individual writing and speaking tasks throughout the study.

The analysis of participant experiences through the lens of AT revealed that knowledge was predominately constructed through the interactions the feedback initiated rather than the feedback itself. The analysis also illuminated the complex ways in which aspects such as the tools participants use to process and respond to the feedback, desired outcomes, language learning beliefs, and the division of labour interact interdependently to influence the learning potential of WCF. Participants displayed the ability to use some of the knowledge generated while collaboratively processing WCF when carrying out new, non-repeat writing and speaking tasks individually. This extends the extant literature, which until now has utilised writing tasks that were either an exact replication of the original
writing task or required participants to edit their original attempt at the task. Additionally, output was shown to not accurately reflect what participants had learnt via the WCF, and as such alternative methods of evaluating what is learnt when collaboratively processing WCF are proposed. Collectively, these findings argue for a reconceptualisation of how WCF potentially benefits language learners, and changes to both pedagogical approaches and assessment in writing are recommended. This study contributes to the theoretical understandings of the learning potential of collaboratively processing WCF and deepens our understanding of the role of feedback in writing for language learners. These new understandings are argued to be useful in informing language teachers’ responses to and assessment of writing, and to better facilitate collaborative writing in the language classroom.
Table of Contents

Candidate Declaration

Abstract ................................................................................................................... i
List of Figures .................................................................................................... viii
List of Tables ..................................................................................................... viii
Preface .................................................................................................................... 1

Chapter 1: Introduction ....................................................................................... 3
  1.1 Mapping the literature and location of this study .......................................... 4
  1.2 Research questions ........................................................................................ 6
  1.3 Significance of the research questions .......................................................... 6
  1.4 Outlining the conceptual and theoretical framework .................................... 8
  1.5 Introduction to Research Methods ............................................................... 9
  1.6 Notes on terminology .................................................................................. 10
  1.7 Organisation of the study ............................................................................ 12

Chapter 2: Literature Review ............................................................................ 15
  2.1 Studies underpinned by cognitive theories of language learning ............ 16
    2.1.1 Theoretical positions within cognitive theories of language learning .. 16
    2.1.2 Early research against the provision of WCF ................................. 18
    2.1.3 Key studies post-1996 ........................................................................ 19
    2.1.4 Limitations of Cognitive-based Studies ............................................. 22
  2.2 Introduction to SCT ..................................................................................... 24
    2.2.1 Graduated feedback ............................................................................ 28
    2.2.2 Peer feedback studies ......................................................................... 34
    2.2.3 Collaborative processing of WCF ..................................................... 37
  2.3 Activity Theory—a potential way forward ................................................. 42
  2.4 Conclusions ................................................................................................. 44

Chapter 3: Frameworks and Methodology ...................................................... 47
  3.1 Conceptual framework: language learning from a SCT perspective ......... 48
  3.2 Theoretical framework: Activity Theory .................................................... 52
    3.2.1 Background and suitability of AT ...................................................... 52
    3.2.2 Interpretation and application of AT ................................................ 53
  3.3 Qualitative data and philosophical underpinnings .................................... 59
  3.4 Case study .................................................................................................. 60
Chapter 3: Carol and Kazue’s experiences .............................................. 81
  4.1 Introduction ....................................................................................... 81
  4.2 Transcription key ............................................................................... 81
  4.3 Co-constructed knowledge points ..................................................... 83
  4.4 Meet Carol and Kazue ....................................................................... 84
    4.4.1 Carol ............................................................................................. 84
    4.4.2 Kazue ............................................................................................ 86
  4.5 Feedback session 1: It’s not just the WCF ......................................... 87
  4.6 Feedback session 2: A new object changes (almost) everything .......... 94
  4.7 Feedback session 3: Changes to mutuality ......................................... 101
  4.8 Feedback session 4: Other activity systems ....................................... 108
  4.9 Carol and Kazue: A summary of their experiences ............................ 115

Chapter 5: Natsuko and Yumi’s experiences ......................................... 118
  5.1 Meet Natsuko and Yumi .................................................................... 118
    5.1.1 Natsuko ........................................................................................ 118
    5.1.2 Yumi ............................................................................................ 120
  5.2 Feedback session 1: Our own English resources only ......................... 121
  5.3 Feedback session 2: A little Japanese and a smartphone ..................... 128
8.2.2 Research question 2: What factors impact the learning potential of collaboratively processing WCF? ................................................................. 221

8.2.3 Research question 3: How is the co-constructed knowledge generated via collaboratively processing WCF drawn upon during individual output? ................................................................. 223

8.3 Contributions of findings ........................................................................ 225

8.4 Pedagogical implications ........................................................................ 226

8.5 Future research ....................................................................................... 228

8.6 Concluding remarks ............................................................................... 230

Appendix 1: Sample pre-study interview questions ........................................ 231

Appendix 2: Participants’ Collaborative Writing Tasks ................................. 232
  Carol and Kazue: Collaborative Writing Task 1 Instructions ....................... 232
  Carol and Kazue: Collaborative Writing Task 1, Draft 1 ............................. 233
  Carol and Kazue: Collaborative Writing Task 1, Draft 2 ............................. 234
  Carol and Kazue: Direct WCF for Collaborative Task 1 ............................. 235
  Carol and Kazue: Collaborative Writing Task 2 Instructions ....................... 236
  Carol and Kazue: Collaborative Writing Task 2, Draft 1 ............................. 237
  Carol and Kazue: Collaborative Writing Task 2, Draft 2 ............................. 238
  Carol and Kazue: Direct WCF for Collaborative Writing Task 2 ................ 239
  Natsuko and Yumi: Collaborative Writing Task 1 Instructions .................... 240
  Natsuko and Yumi: Collaborative Writing Task 1, Draft 1 ......................... 241
  Natsuko and Yumi: Collaborative Writing Task 1, Draft 2 ......................... 242
  Natsuko and Yumi: Direct WCF for Collaborative Task 1 ........................... 243
  Natsuko and Yumi: Collaborative Writing Task 2 Instructions .................... 244
  Natsuko and Yumi: Collaborative Writing Task 2, Draft 1 ......................... 245
  Natsuko and Yumi: Collaborative Writing Task 2, Draft 2 ......................... 246
  Natsuko and Yumi: Direct WCF for Collaborative Writing Task 2 ............... 247

Appendix 3: Retrospective interview sample questions .................................. 248

Appendix 4: Participants’ Individual Writing Tasks ..................................... 249
  Task Instructions: Carol and Kazue’s Individual Tasks ............................... 249
    Individual Writing Task 1 ........................................................................ 249
    Individual Writing Task 2 ........................................................................ 249
    Individual Writing Task 3 ........................................................................ 251
    Individual Writing Task 4 ........................................................................ 251
    Speaking Task 6 ....................................................................................... 253
    Speaking Task 8 ....................................................................................... 253
List of Figures

Figure 3.1: A visual representation of AT G3 for collaboratively processing WCF ................................................................. 54
Figure 3.2: Activity System for Indirect WCF ............................................................... 55
Figure 3.3: AT G3 Framework for Direct WCF ............................................................ 56
Figure 3.4: AT G2 framework applied when investigating research question 3... 58

List of Tables

Table 3.1 Carol and Kazue’s Data Collection Timeline.................................68
Table 3.2 Natsuko and Yumi Data Collection Timeline..............................69
Table 4.1 CKPs identified by Carol and Kazue in feedback session 1.........94
Table 4.2 CKPs identified by Carol and Kazue in feedback session 2....100
Table 4.3 CKPs identified by Carol and Kazue in feedback session 3....107
Table 4.4 CKPs identified by Carol and Kazue in feedback session 4....114
Table 5.1 CKPs identified by Natsuko and Yumi in feedback session 1...127
Table 5.2 CKPs identified by Natsuko and Yumi in feedback session 2...133
Table 5.3 CKPs identified by Natsuko and Yumi in feedback session 3...139
Table 5.4 CKPs identified by Natsuko and Yumi in feedback session 4...145
Table 7.1 Carol’s utilisation of CKPs from feedback sessions 1 and 2...191
Table 7.2 Carol’s utilisation of CKPs from feedback sessions 3 and 4...191
Table 7.3 Kazue’s utilisation of CKPs from feedback sessions 1 and 2 .......... 192
Table 7.4 Kazue’s utilisation of CKPs from feedback sessions 3 and 4 .......... 193
Table 7.5 Natsuko’s utilisation of CKPs from feedback sessions 1 and 2 .......... 195
Table 7.6 Natsuko’s utilisation of CKPs from feedback sessions 3 and 4 .......... 196
Table 7.7 Yumi’s utilisation of CKPs from feedback sessions 1 and 2 .......... 196
Table 7.8 Yumi’s utilisation of CKPs from feedback sessions 3 and 4 .......... 197
Preface

A research journey begins…

The seed for this research was sown by Doctor Rod Neilsen during a lecture while undertaking my Master of TESOL course. As a class, we were examining a piece of writing produced by an English language learner, when he commented that there is much debate surrounding the benefits of providing written corrective feedback (WCF), and that one could refer to articles written by John Truscott and Dana Ferris if they would like to begin to delve into the issue further.

Before I engaged with the literature, my own personal experiences as both a language learner and teacher had provided me with contradictory encounters with WCF. Reflecting upon my own Japanese language learning experiences in Japan, where I resided for approximately 15 years, I recalled my own frustration with receiving drafts of my writing covered in red pen. Too often I felt the teacher had misunderstood my ideas, addressing what, according to other local Japanese speakers, were frivolous and at times subjectively interpreted grammatical points. As such, my teachers seemed to attach very little value to the content of my writing. At the end of my time as a full-time Japanese language student, I did not read the WCF my teachers provided. I also often avoided linguistic phrases or items I felt may receive WCF—effectively simplifying my writing to avoid the dreaded red pen.

Despite these feelings as a language learner, during my time as an English language teacher in both Australia and Japan, there had been times when I was expected to provide WCF to my students—with some of my employers mandating not only that WCF be provided but also the manner by which it was to be provided. It seems I am not alone in experiencing this, with research showing that some institutions set strict guidelines around WCF. These guidelines are not necessarily misaligned, as research shows that language learners perceive WCF as valuable and many language teachers view it as a pedagogical tool.
With my interest piqued, I started investigating what I thought would be a reasonably straightforward issue to clarify my own pedagogical practices—completely unaware of the journey I was about to venture into. As anyone familiar with the literature already knows, there is little congruency amongst the extensive amount of studies investigating WCF. Determined to know more, the topic of my research paper, which made up part of my Master of TESOL degree, became obvious and I embarked on a study that investigated Japanese adult learners’ perspectives of the usefulness of WCF. Perhaps the most valuable finding the paper offered was the illumination of the influence of external factors such as learner preferences and learner characteristics on the usefulness of WCF. While I would argue that this was a good start due to the paper’s attempts to incorporate factors outside of a learner’s mind, I retrospectively came to realise that it lacked one key ingredient—the WCF was delivered in the traditional unidirectional manner between a teacher and learner, with the learners processing the feedback alone. Yet, with pair and group work making up so much of my own teaching, it seemed counter-intuitive that learners were writing alone. This realisation reignited my interest in sociocultural theory (SCT), which naturally also brought to my attention the, albeit limited, research into WCF conducted through the lens of SCT. It was here where the next stage of this journey began as I embarked on this PhD journey. In what follows, I aim to explore language learners’ experiences with WCF within a sociocultural framework.
Chapter 1: Introduction

This thesis is an exploration of the experiences of a small number of English language learners with the collaborative processing of written corrective feedback (WCF) through jointly produced texts. The impact of feedback on students is argued to be one of the most important factors that influence student achievement (Black & Wiliam, 1998). Therefore, consideration of its importance and providing contextually appropriate feedback is paramount (Harmer, 2007). For language teachers, feedback can be broadly divided into oral (including paralinguistic) and written feedback. WCF refers to written feedback provided to a language learner in response to an error that has occurred in their writing and is commonly assumed to be provided on linguistic errors rather than on the quality of the content of the writing (Bitchener & Storch, 2016). Based on this definition, oral feedback can be considered as feedback on linguistic errors, which is provided through speech or paralinguistic gestures. Research into oral feedback has shown it to be beneficial for language learners (Carroll & Swain, 1993; Muranoi, 2000), with explicit feedback emerging as being more helpful than implicit (Ellis, Loewen, & Erlam, 2006). The research is a lot less congruent when investigating WCF. Despite considerable investigation into WCF over three decades, there is still much debate on its learning potential and several interesting areas are yet to be investigated.

In this chapter, I first provide an overview of the literature on WCF to highlight the interesting gaps in our knowledge of WCF and its role in language learning. While providing this brief overview, I also describe the location of this study within the extant literature. Following this, the aims of this study and its resulting research questions are presented. I then discuss the significance of these research questions and how they contribute to our knowledge of WCF in the context of language learning. This is followed by a brief introduction to the conceptual and theoretical framework of this study and the research methods utilised. The chapter then concludes with some notes on terminology and outlines the organisation of this thesis.
1.1 Mapping the literature and location of this study

As the literature review will highlight, much of the extant literature investigating WCF has been underpinned by cognitive theories of language learning. The majority of studies have utilised pre- and post-tests to measure the learning derived from WCF and given little, if any, consideration to factors outside of the provision of WCF. These studies have made some important contributions to our understanding of WCF, including: the benefits of it being focussed (Bitchener & Knoch, 2009b); being more beneficial when addressing simple rule-based errors (Ferris, 1999; Ferris & Roberts, 2001); the learning derived from WCF is considered to be explicit knowledge (Bitchener, 2012; Shintani & Ellis, 2013); and that the single provision of WCF can have long-term effects (Bitchener & Knoch, 2009b, 2010a). However, as I will argue in the literature review, studies underpinned by cognitive theories of language learning are limited in how far they can take our understanding of the role WCF plays in language learning. Firstly, there is a need to understand how WCF interacts with other variables within the learning process (Bitchener, 2012). These studies have given no, or very little, attention to factors such as the learner’s goals, motivation and relationship with the provider of the feedback (Storch, 2010). Secondly, these studies have utilised feedback that addresses very few errors and as such is not reflective of real-life classrooms (van Beuningen, De Jong, & Kuiken, 2012). Additionally, the pre- and post-test measures used to evaluate learning have the potential limitation that learners consider these tasks as grammar tests and as such do not truly reflect a learner’s interlanguage (Williams, 2012). Finally, these studies have investigated writing as an individual activity, and as such assume that any learning is occurring within the mind of an individual learner. Such an approach may be limited due to not providing learners with opportunities to learn through social interactions—a key tenet of sociocultural theory (SCT). The vast majority of these studies were implemented with participants writing individually and the WCF being provided in a unidirectional manner, i.e. the teacher provided WCF and the student processed the feedback alone. Such an approach neglects the potential benefits of learners working together, as peers have been found to be able to scaffold each other in ways similar to expert-novice type interactions and
create knowledge as they complete tasks collaboratively (for example Donato, 1994).

In order to address some of these limitations, studies have facilitated the investigation of WCF when learners work in pairs throughout the whole writing process—including the processing of WCF. These studies have shown that learners can co-construct knowledge while collaboratively processing WCF (Adams, 2003; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002; Tocalli-Beller & Swain, 2005). These studies have also highlighted the influence of factors such as the goals of a learner or their satisfaction with the feedback, which contribute to any learning that may eventuate. While these findings have made important contributions, there have been calls to use activity theory (AT) to investigate WCF to illuminate weaknesses in the feedback cycle and improve the process (see Bitchener & Storch, 2016; I. Lee, 2014; Storch, 2018). As Storch notes, within the extant literature important factors such as participant history, beliefs, cultural norms, classroom context and learner goals are often not given due consideration. However, AT is a framework that can further our understanding of how these factors interact to create participant experiences with WCF (Storch, 2018). While there are a handful of studies that utilise AT to investigate WCF, a thorough search of the literature did not reveal any studies that have investigated WCF when it is collaboratively processed on jointly produced texts.

Additionally, a potential limitation of the extant literature that has investigated collaboratively processed WCF is that many have utilised a post-test, which is a repeat task of the original collaborative task. How learners use this co-constructed knowledge in individual non-repeat, new output remains under-researched. Furthermore, to date there has been no research to examine how much, if any, of this knowledge is able to be used in spontaneous output. This thesis aims to contribute to a deeper understanding of these interesting gaps in the literature.

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1 Please see section 1.6 for notes on how the term repeat is used to describe a writing task throughout this thesis.
1.2 Research questions

This thesis aims to investigate how English language learners experience the collaborative processing of WCF on jointly produced texts. Specifically, this project aims to provide a rich description of the what, why and how of participants’ experiences when collaboratively processing WCF on jointly produced texts; with the what referring to what knowledge participants co-construct, the how referring to how participants co-construct knowledge, and the why referring to the reasons why participants complete the activity in the manner they do. The nature of this description also intends to illuminate factors that impact the learning potential of learners collaboratively processing WCF on their jointly written texts. The thesis then aims to investigate how, and to what extent, the knowledge created and/or primed through collaborative processing of feedback is drawn upon at a later date in new individually written texts and spontaneous spoken output. Based on these research aims, this research investigates the following questions:

1. How do learners experience and engage with the collaborative processing of WCF on co-constructed texts?

2. What factors impact the learning potential of collaboratively processing WCF?

3. How is the co-constructed knowledge generated via collaboratively processing WCF drawn upon during individual output?

1.3 Significance of the research questions

Each of these three research questions aims to contribute to our knowledge of WCF. The first research question will give insights into the strategies and tools participants use to respond to the WCF they receive. The extant literature has at times identified the strategies used by learners to facilitate the peer revision process (for example Villamil & Guerrero, 1996) but has yet to consider the impact these strategies have on learning, when and why the strategies were used, and how the learners themselves perceived them. The description this research question aims to provide is argued to help fill this
interesting and under-researched area. A deeper understanding of how and why participants utilise certain tools and strategies and how they perceive them will provide insights into how learning occurs during this process.

Investigating the second research question is also argued to offer a valuable and significant contribution. This research question aims to provide a rich description of how factors such as participant beliefs around optimal language learning strategies, their history, their cultural norms, their goals, and the classroom context all interact with each other to influence the learning potential of collaboratively processing WCF. This is a perspective that has been identified as under-researched (Storch, 2018). Understanding the relationship between these factors is argued to be valuable for language teachers as it will help them understand the environment in which learners are more likely to benefit from collaboratively processing WCF.

Finally, the third research question extends the extant literature by investigating how participants experience any knowledge they co-constructed while collaboratively processing WCF in non-repeat, new writing and speaking tasks. This is argued to be significant because the extant literature has utilised a repeat of the original task, which leaves the question of whether or not any of the co-constructed knowledge can be adapted to new circumstances. Furthermore, I am unaware of any studies that have investigated if the knowledge generated via WCF can be used in spontaneous output. The third research question requires multiple episodes of output to be analysed, which will facilitate an analysis of how much of the knowledge co-constructed during the processing of WCF is reflected in participants’ individual output. This is a valuable insight because if a gap exists, then earlier studies investigating WCF that used output to measure learning may not have accurately represented what participants had learnt. Embedded within my three research questions is the intention explore the pedagogical implications of my findings. These will be synthesised and discussed in the conclusion chapter.

Before introducing the methods by which these research questions will be investigated, I will first introduce the conceptual framework that underpins this study and the theoretical lens that will be used to view the data.
1.4 Outlining the conceptual and theoretical framework

This study is underpinned by a SCT view of language learning. A key tenet of SCT is that our higher mental functions are mediated by symbolic tools such as language (Lantolf, 2000). Within SCT, the notion of language mediating thinking is referred to as *languaging*, which Swain (2006) defines as “the process of making meaning and shaping knowledge and experience through language” (p. 98). The use of language to make meaning and shape knowledge may occur when engaged in dialogue with another individual or when talking to oneself (Swain, 2006). When the tool of language is conceived as mediating an individual’s higher mental functions, the production of language becomes an activity that is both cognitive and social (Swain, 2000); as such, the output of a language learner is learning rather than a result of learning. Therefore, in this study, participants are considered to be co-constructing knowledge as they use language to talk with their partner, talk to their study partner, or talk to themselves as they respond to instances of WCF. A more detailed introduction to SCT and a complete description of the conceptual framework of this study can be found in sections 2.3 and 3.1 respectively.

Underpinned by this view of languaging, this study requires a theoretical lens that enables the outcome of participants’ languaging to be first be identified. In line with the rich description this study aims to provide, this outcome needed to be considered in relation to the other social factors interacting with a participant’s experiences with WCF to illuminate insights into how and why knowledge was primed or created. After identifying the outcome of participant’s languaging while processing WCF, the framework then needs to be able to consider how any co-constructed knowledge is used in individual output and understand the factors influencing how the knowledge is used. AT is a theoretical framework that meets these needs. AT is a “descriptive tool” that assists in developing an understanding of a complex learning activity (Barahona, 2015, p. 67). The second generation of the theory was further developed by Engeström (Lantolf & Thorne, 2006, p. 222), who expanded the theory to include consideration of: subject(s); tools and signs; object; rules; community; and division of labour (Engeström, 1987). This expansion allows due consideration to
be given to the complex interdependent relationships between an activity and its external factors (Engeström, 2014). Engeström states that his third generation of AT was later developed to allow for multiple perspectives of one event to be accounted for. The use of AT as a theoretical lens is in line with the conceptual underpinnings of this study and meets its practical needs.

1.5 Introduction to Research Methods

This study seeks to provide a rich description of how learners experience the process of collaboratively processing WCF from the learners’ perspective. With qualitative data seeking an understanding from the perspective of the participant (Merriam & Tisdell, 2015) and the interpretivist paradigm seeking to understand phenomena through an interpretation of participants’ perspectives (Lincoln, Lynham, & Guba, 2011), this study was best approached through qualitative data in an interpretivist paradigm. My epistemology in taking this approach is that there is not one single observable reality, but rather that reality is socially constructed, and as such there are multiple realities of one single event (Merriam & Tisdell, 2015). The nature of this study and the thick description of events it seeks resulted in the adoption of a case study approach.

There are three main data collection tools used in this study. The first is the video recordings of participants as they collaboratively processed WCF on their jointly written texts. The second tool is the individual retrospective interviews, during which participants watched the video-recordings and described their experiences. The third is the output participants produced during the study. This included both collaborative and individual output. In order to ensure my interpretation of each participant’s interpretation of their experience was accurate, member checking was performed on multiple occasions throughout the study.

The description and analysis this research presents is the experiences of four adult English language learners in Melbourne, Australia. The four learners participated as two set pairs throughout the duration of the study. Over the course of ten English language classes, each pair jointly produced two texts, each consisting of two drafts. As such, WCF was collaboratively processed on four occasions. The classes were conducted separately for each pair, i.e. the study was
run as two separate classes. Participants were provided with multiple opportunities to utilise the knowledge co-constructed via the WCF in individual writing and speaking tasks. Participants then identified where they believed they had utilised this knowledge and discussed factors that influenced their usage of this knowledge. This thesis is a case study and as such its results are not intended to be generalised—nor can they—to all English language learners. However, as Yin (2009) argues, a case study can contribute to theoretical positions and as such the rich description this study provides is argued to contribute to a more complete understanding of WCF and its place in language learning.

1.6 Notes on terminology

Some notes on terminology are required before proceeding. This section describes the use, or at times non-use, of the following terms: the zone of proximal development (ZPD), interaction, co-constructed knowledge point (CKP), priming, repeat task, tool and dominant language.

From Chapter 4 onwards, I have not used the term ‘ZPD’ when describing participants’ experiences. I took this course of action for a number of reasons. Firstly, the ZPD concept is only one of the ways in which Vygotsky played out his social theory of learning—with the ZPD being argued to not be the most important aspect of his social theory of learning (Chaiklin, 2003; Lantolf & Thorne, 2006). Secondly, the ZPD has had wide-ranging interpretations within language education (Kinginger, 2002; Lantolf & Thorne, 2006). For example, it is often amalgamated with scaffolding, which leads to not only a misrepresentation of the metaphor but limits its richness (Smagorinsky, 2018). I am not suggesting there is no value in the term scaffolding; the term aptly describes some situations during which a learner constructs knowledge during a ZPD. However, I agree with Smorginsky that conceptualisation of the ZPD should not be limited to a notion of scaffolding being strategically provided and withdrawn. When describing participant experiences of collaboratively processing WCF, I am in effect describing their experiences of collaborating with each other, the WCF, and online literary resources—interactions in which knowledge was often co-constructed during a ZPD. However, I felt that the use of this term while describing participant experiences may shift the focus away from the co-
construction of knowledge and shift it towards the notion of the WCF acting as scaffolding. Participant experiences showed that while there were times the WCF acted as scaffolding, they indicated it was not the main manner by which knowledge was co-constructed; rather, it was mainly through the dialogue the feedback generated. Thirdly, in the preceding studies that underpin this thesis, the term ZPD has not been used when describing knowledge that has been co-constructed through the collaborative processing of WCF (for example Adams, 2003; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002), nor has it been used in describing co-constructed knowledge emerging from non-WCF-type tasks (for example Donato, 1994; Swain & Lapkin, 1998). Accordingly, I felt that the findings were best presented without using the term ZPD to reduce the possibility of participant experiences being misinterpreted due to any preconceived notion readers of this thesis may hold about this often misunderstood term.

A second term to note is the word ‘interaction’. When presenting participant experiences, I have used this term to describe an exchange or social contact between a participant and another individual or with an artefact, such as a text or dictionary. In SCT, all material and symbolic man-made objects are referred to as artefacts (Swain, Kinnear, & Steinman, 2015). This is in line with the notion that in SCT, writing is viewed as a “conversation” between an individual and a piece of paper (Vygotsky, 1987, p. 202). Therefore, in this study, the term interaction encompasses a participant’s exchange or contact with both other individuals and artefacts or inanimate objects. Furthermore, the term also covers what some studies have referred to as language-related episodes (LREs), which are defined as participants discussing the language they are in the act of producing (Swain & Lapkin, 1995) or language that has been produced (Swain & Lapkin, 2002).

A third term to note is ‘co-constructed knowledge point’ (CKP). A key aim of this study is to investigate what participants perceive they learnt while collaboratively processing feedback. However, terms such as instance of learning or linguistic item became problematic. Firstly, learn gives the impression that the knowledge is new; however, in a similar manner to Tocalli-Beller and Swain (2005), participants identified that pre-existing knowledge was often primed while collaboratively processing WCF. Secondly, participants identified learning
that was not a linguistic item, such as a grammatical rule, but broader issues ranging from communicative strategies, letter-writing conventions and pronunciation of lexis. Such learning is not well rendered by terms such as *linguistic item*. Finally, in line with description of interaction presented above, a term that captures the interactional aspects between an individual and their surroundings, which SCT espouses, was needed. As such, any knowledge that a participant identifies as being constructed while collaboratively processing WCF, whether or not the interaction was with another individual or an artefact, or a combination of both, is referred to as a CKP.

A fourth term to note is the use of ‘priming’. In this thesis, some CKPs are referred to as primed knowledge, which is referring to a learner refining existing knowledge and/or the process of making that knowledge more accessible. This term was necessary to understand which CKPs participants identified as the creation of new knowledge and those which were identified as the refinement of pre-existing knowledge. The term ‘repeat’ is used throughout this thesis to refer to post-tests which were writing tasks that were either an exact replication of the original pre-test task or a task which required learners to edit their original attempt at the writing task. The term ‘tool’ is used to refer to both tools and signs/symbols in this thesis. The term is also used to refer to mediational means.

A final term to note is ‘dominant language’. In line with research that has questioned the dichotomy of a native speaker and non-native speaker (for example Moussu & Llurda, 2008) I have used the term ‘dominant language’ to refer to what has traditionally been referred to as one’s ‘native language’ or ‘L1’. However, there are occasions in this thesis when the term ‘native language’ cannot be avoided to refer to one’s ‘L1’, for example when referring to other researchers’ work or quoting excerpts from participant interviews.

### 1.7 Organisation of the study

This section describes the organisation of this thesis. The Preface and Chapter 1 provide an overview of this study, which includes its inspiration, its location within the literature and this study’s research questions. Chapter 2 surveys the literature on WCF. The chapter begins by surveying the literature,
which has been underpinned by cognitive theories of language learning. I then go on to argue that a new framework in which to investigate WCF is required, with AT being the framework that can assist us further develop our knowledge of collaboratively processing WCF. In Chapter 3 I outline the conceptual and theoretical frameworks that underpin this study, followed by a description of its methodology. The conceptual framework discusses how language learning is understood within a SCT framework. The theoretical framework explains my interpretation of AT and how it is implemented in this project. The chapter then explains the data collection instruments utilised and the implementation of this study.

Chapters 4, 5, 6 and 7 make up my data chapters. With the rich description the data analysis provides, it seemed counter-intuitive to attempt to present the rich qualitative data and then discuss it in a separate chapter. Therefore, it made sense to analyse and discuss the findings for each research question within the same chapter. As previously mentioned, this study consists of four participants, who took part in this study as two set pairs for its entire duration. When considering the first research question, the data provided a thick description of participant experiences for each pair that benefited from being explored separately. As such, Chapter 4 addresses the first research question for one pair, and Chapter 5 the second pair.

The second and third research questions lent themselves to combining the data for both pairs and to be presented and discussed simultaneously. As such, Chapter 6 addresses the second research question for both pairs and Chapter 7 presents the third research question for both pairs. After presenting and discussing the data of this case study, the conclusion chapter summarises the findings, which answer the three research questions, and discusses the implications of these answers for language teachers and researchers and directions for further research.

After the concluding chapter, a large amount of raw data is provided in the appendices. This raw data includes: transcriptions of selected interactions from the video-recordings of participants collaboratively processing WCF; typed up copies of the collaborative writing tasks with the WCF; and typed up copies of participants’ individual writing and speaking tasks. The inclusion of this raw data
serves two purposes. Firstly, it is required to ensure the reliability (or as I will explain in section 3.9.2, the consistency) of this study. Secondly, it also assists to ensure its rigour, as I analyse, present and discuss what is, in its totality, a complex and large set of data.

This introductory chapter has presented a brief overview of this study. The chapter began with a short outline of the literature that investigates WCF and then located where this study fits into the extant literature. To restate, this thesis investigates how English language learners experience the process of collaboratively processing WCF on jointly produced texts. The research questions were introduced and I discussed the contribution the findings are expected to make to our understanding of collaboratively processing WCF. This was followed by a brief introduction to the conceptual and theoretical frameworks of this study and its research methods. I then discussed some notes on the terminology used in this thesis and provided a guide to the structure of the thesis itself. With the research having been introduced, the next chapter provides a more in-depth analysis of the extant literature and the gaps this study aims to address.
Chapter 2: Literature Review

This literature review will critically analyse the research on written corrective feedback (WCF) in two main sections. The first will look at research that has been underpinned by cognitive theories of language learning. The section will first outline some theoretical considerations to keep in mind when mapping out studies within this framework. It needs to be noted from the outset that research underpinned by cognitive theories of language is extensive in its volume. Due to this study being informed by sociocultural theory (SCT), only selected key studies underpinned by cognitive theories of language learning are discussed.

The second section of the literature review examines research that uses SCT and activity theory (AT) as its framework. This begins with studies that investigate the benefits of providing graduated feedback to learners so that it can be adjusted to be within their zone of proximal development (ZPD) when involved in expert-novice interactions. This is followed by studies drawing on Donato’s (1994) notion of learners collectively scaffolding each other in peer-to-peer rather than traditional expert-novice interactions. Finally, studies that utilised AT to investigate WCF and its broader context are discussed.

As I survey the literature, I engage critically with it from not only a methodological and theoretical point of view, but also through the lens of a language teacher in real-life classroom contexts. The ultimate aim of this study is not only to extend our knowledge of WCF but also to help both language teachers and learners. As such, on several occasions I draw on my own experience as a language teacher when considering how the literature may or may not benefit teacher practice. I should also note that while this literature review spends significantly more time discussing studies that have been underpinned by SCT, this should not be interpreted as assuming these studies are of more importance. Rather, it is a reflection of this study’s theoretical framework, and the intention to further our knowledge of WCF when examining the issue through a SCT lens.
2.1 Studies underpinned by cognitive theories of language learning

2.1.1 Theoretical positions within cognitive theories of language learning

Polio (2012) highlights that whilst much of the research concerning oral feedback has used Second Language Acquisition (SLA) theories to support researchers’ arguments, most of the research on WCF does not. A large amount of the research has been based on the practical outcomes of learners receiving WCF, with arguments often being presented without the support of SLA theories (Polio, 2012). This is not to suggest, however, that the research does not draw on SLA theories, nor that it has not affirmed constructs of these theories (Bitchener, 2012). The scope of this literature review does not allow for an in-depth discussion of different cognitive-based SLA theories underpinning these key studies. Therefore, only key theoretical considerations will be discussed before mapping out the research in the first section of this review. While these considerations are in no way argued to be exhaustive, they aim to present the theoretical basis of cognitive-based studies.

When arguing against the use of WCF on theoretical grounds, the role of explicit knowledge is given minimal, if any, importance in language acquisition. Such a position agrees with Krashen’s (1985) theory that learnt (explicit) knowledge cannot become acquired (implicit) knowledge and that implicit knowledge is more useful for language learners in real-life communicative settings. Another theoretical proposition that would argue against the benefits of WCF is Pienemann’s processability theory of oral language, which argues there are stages of acquisition that cannot be altered by instruction (Pienemann, 1998; Pienemann & Lenzing, 2014). Finally, there is also the argument that while explicit knowledge and feedback may be beneficial, it can be argued that WCF occurs in a context too far removed from the original use of the language, and as such any feedback becomes ineffective (Polio, 2012).

When taking a position that, on theoretical grounds, WCF can be beneficial for learners, a common presumption is that explicit knowledge can
become automatised. The question of whether or not explicit knowledge becomes implicit is beyond the scope of this study. However, the key point to note is that, unlike Krashen (1985), explicit knowledge is considered beneficial for a learner because it can be used in a manner similar to implicit knowledge if it is automatised. This notion is based on skill acquisition theorists such as such as Anderson (2010) and DeKeyser (2014), as well as McLaughlin’s (1987) information processing model. Whilst not identical, both theories argue that complex skills can become automatised through repetition and practice. Therefore, the explicit knowledge generated via WCF can be beneficial in the long-term if it becomes automated, or internalised, through practice. Another theoretical consideration that supports the notion that WCF can facilitate language development is Schmidt’s (1990) noticing hypothesis. Based on this, learners’ attention can be drawn to particular language forms in their input and output through the provision of WCF, which results in language development. This is based on the hypothesis that WCF can act as a tool that helps learners understand certain linguistic items and rules, and thus draws the attention of learners to targeted items in both input and output.

Before outlining some of the key studies, some brief notes on the terminology used are required. Some commonplace terms throughout the literature on WCF underpinned by cognitive theories of language learning that may require clarification include:

*Comprehensive feedback*: feedback addressing multiple, if not all, errors made. Used interchangeably with *unfocussed WCF* in the literature.

*Content feedback*: feedback addressing issues beyond the sentence level. For example, incorrect information, text structure and coherence.

*Control group*: a group of participants who did not receive any WCF.

*Direct WCF*: feedback providing the correct form of the grammatical error.

*Focussed WCF*: feedback addressing a limited number of error types and ignoring others. For example, addressing errors concerned with article usage but ignoring errors with modal verb usage.
**Indirect WCF:** feedback that does not provide the correct form of the error. The location of the error may, or may not, be provided.

**Treatment group:** a group of participants who received WCF.

**Meta-linguistic explanation:** an explanation of the grammatical rule that was broken.

**Unfocussed WCF:** feedback addressing multiple, if not all, errors made in the text. Used interchangeably with comprehensive WCF in the literature.

The overview of key studies underpinned by cognitive theories of language learning are presented in two main sections: Early research against the provision of WCF, and key studies post-1996. I have done this because, traditionally, teachers assumed written work in a foreign language class requires comprehensive correction of grammatical errors based on the notion that if errors are not addressed, fossilisation will occur (Kepner, 1991; Semke, 1984). This notion was not noticeably challenged in the literature until Truscott (1996) called for the abandonment of WCF. Since Truscott’s seminal article, the issue has been heavily debated (see Ferris, 1999, 2004; Truscott, 1999, 2004), with the article generating a large number of subsequent studies (Polio, 2012). Therefore, it makes sense to present the literature in a pre- and post-1996 framework.

### 2.1.2 Early research against the provision of WCF

Surveys of the literature on early research investigating WCF drew the conclusion that it does not lead to an increase in grammatical accuracy for learners (Leki, 1990; Truscott, 1996). Additionally, it was argued that WCF is actually “harmful” (Truscott, 1996, p. 328) due to it negatively affecting the attitudes of learners, reducing the complexity of their writing and not being an efficient use of student time. Truscott (2004) went on to argue that learners avoid using linguistic items that receive WCF in subsequent writing tasks. Some of the key studies that have been used to support the argument against the use of WCF include: Semke (1984), Kepner (1991), and Sheppard (1992). While these studies do differ in methodology and their specific research questions, they are congruent in finding that the provision of WCF does not lead to a notable increase in
grammatical accuracy (Kepner, 1991; Semke, 1984; Sheppard, 1992), with participants who received content feedback showing greater improvement in Semke’s and Sheppard’s study. Additionally, Semke found that indirect WCF caused learners to experience negative feelings towards writing in an additional language and Sheppard found that the group that received WCF reduced the complexity of their writing over the course of the study. It needs to be noted that other researchers (for example Ferris & Roberts, 2001) have stated that Sheppard (1992) showed positive results for WCF. This is due to the WCF group showing an improvement in grammatical accuracy. However, as the content-related feedback group displayed greater improvement and the WCF group displayed negative effects of correction, I agree with Truscott (1996) and consider Sheppard’s results to fall under the “against” side of the WCF debate.

At face value, these three studies may lead one to agree with Truscott’s (1996, 2004) argument that WCF does not improve the grammatical accuracy of language learners. However, the aforementioned studies have been critiqued for design flaws. It has been argued that the studies used to support Truscott’s argument are each testing slightly different issues, and accordingly, results should not be combined to draw conclusions (Ferris, 1999). Bitchener and Ferris (2012) go on to point out that these studies appear to have used unfocussed WCF. This is significant, as other studies have found that due to the cognitive load unfocussed feedback places on a learner, potential learning is counteracted (Han, 2002; Sheen, Wright, & Moldawa, 2009). Additionally, I argue that of greater concern is the one-shot nature of testing used in these studies. These studies used a single episode of output to assess students learning after receiving feedback. Language learners do not progress in a linear manner and the accuracy of learners’ production is often inconsistent despite conditions being identical (Lightbown & Spada, 1999; Nunan, 2001). With these critiques in mind, a significant amount of research was conducted in order to further investigate Truscott’s claims.

2.1.3 Key studies post-1996

Truscott’s (1996) paper drew a significant amount of attention and prompted a large number of subsequent studies (Polio, 2012). In Liu and Brown’s (2015) methodological synthesis of papers on WCF, they report there are over
300 papers investigating the issue. With much of the research being underpinned by cognitive theories of language learning and this study being informed by SCT, it bears repeating that only a brief overview of some of these studies is provided. For a more in-depth analysis of these studies, I suggest reviews on the literature such as: Bitchener (2012); chapter 3 of Bitchener and Ferris (2012); and chapter 3 of Bitchener and Storch (2016).

Despite the incongruences within the plethora of studies on WCF, I find two common themes emerging in most, but not all, of the studies post-1996. The first is that WCF has usually been found to be beneficial when addressing rule-based errors such as the simple past tense, noun endings and some specific usages of articles, but offers few benefits when addressing more idiosyncratic issues such as prepositions and word choice (for example Bitchener, Young, & Cameron, 2005; Ferris & Roberts, 2001). The second theme is that WCF has been found to be more beneficial when it is focussed and addresses very few error types (for example Bitchener & Knoch, 2009b; Ellis, Sheen, Murakami, & Takashima, 2008; Stefanou & Révész, 2015).

When examining studies that utilised focussed WCF, of particular note have been the studies examining WCF and one linguistic item only—namely the referential uses of the definite and indefinite article (‘a’ for the first mention and ‘the’ for subsequent mentions). Examples of these studies include: Bitchener (2008); Bitchener and Knoch (2009a, 2009b, 2010a, 2010b); Ellis et al. (2008) and Sheen (2007). The design and method of the aforementioned studies are not completely congruent and at times the studies investigate slightly different issues—for example the difference between different types of direct WCF (for example Bitchener, 2008; Sheen, 2007) or a comparison of the usefulness of direct and indirect WCF when targeting articles (for example Bitchener & Knoch, 2010b). However, there are substantial similarities, which allow, to some degree, the pooling of results. The studies did not require participants to write revisions of texts after receiving feedback, utilised a pre-test, immediate post-test and delayed post(s) methodology, and with the exception of Sheen (2007), all studies used a similar instrument to test learning—a series of pictures used to stimulate a narrative text or describe a situation. These studies were all congruent in finding that WCF improved the accuracy of learners’ usage of articles (for the referential
function) in both immediate and delayed post-tests. Perhaps of most significance is the finding that participants showed evidence of long-term learning ten months after receiving WCF (Bitchener and Knoch, 2009b, 2010a). However, it should be noted that the studies were not always congruent in exactly which type of feedback was most helpful for learners. For example, direct WCF with a written meta-linguistic explanation was found to be more useful than direct WCF only in Sheen (2007), but no significant difference was found in Bitchener and Knoch (2009a, 2010a).

The emerging picture that WCF is useful for learners when it is highly focussed and addresses rule-based errors is further evidenced in Ellis et al. (2008) and Sheen et al. (2009). One similar aspect of both studies was that they compared the impact of receiving direct WCF for one linguistic item only (the referential use of articles) and direct WCF on multiple items (referential use of articles in combination with other linguistic items). In both studies, the groups that received the highly focussed WCF outperformed those that received WCF on multiple errors. Additionally, Sheen et al. found that writing practice alone was more beneficial than receiving WCF on multiple linguistic errors.

Further, van Beuningen et al. (2012) posit that the usage of such highly focussed WCF in these studies finding WCF to be beneficial is not reflective of real-life classrooms. Empirical evidence of van Beuningen et al.’s argument can be found in I. Lee (2004) and Alshahrani and Storch (2014). Lee’s investigation of teachers and students in Hong Kong found that both teachers and students prefer all errors to be addressed when providing WCF. Alshahrani and Storch found that teachers in a Saudi Arabia context were required by their institution to provide comprehensive WCF. When investigating unfocussed WCF, the results have been inconclusive. Truscott and Hsu (2008) found that unfocussed WCF was beneficial for learners when revising their texts, but these benefits did not carry over to new pieces of writing, thus bringing into question any longer-term benefits of unfocussed WCF. Contrary to Truscott and Hsu, van Beuningen, De Jong, and Kuiken (2008), van Beuningen et al. (2012), and Frear and Chiu (2015) found some benefits of unfocussed WCF did carry over to new texts. The type of WCF that participants benefited from in the longer-term varied in each of the studies performed by van Beuningen et al. In van Beuningen et al. (2008), direct
WCF was reported as having the greatest benefit for learners when producing new texts. In van Beuningen et al. (2012) there was no significant difference between direct and indirect WCF on the first post-test, however, it was indirect WCF that had the most lasting benefits when considering the delayed post-test. While Frear and Chiu did not compare direct and indirect WCF, they found that both focussed and unfocussed WCF was beneficial for participants, however, there was no significant difference between the treatment groups.

A final area of interest within the studies underpinned by cognitive-based theories of language learning is whether or not the explicit knowledge that is either created or primed via WCF can become implicit knowledge (Polio, 2012; Williams, 2012). In order to investigate this notion further, Shintani and Ellis (2013) looked for evidence of WCF increasing both explicit and implicit knowledge. Shintani and Ellis investigated this by utilising an error correction test to test explicit knowledge and narrative writing tasks to test implicit knowledge. The study comprised of three groups: direct WCF; meta-linguistic explanation as feedback; and a control group. The study provided highly focussed feedback, targeting use of the indefinite article when denoting an unknown referent. Shintani and Ellis found that meta-linguistic explanations created and/or primed some explicit knowledge but not implicit knowledge, and that direct WCF did not create and/or prime any explicit or implicit knowledge in this study.

From the studies I have given an overview of thus far, the emerging theme is that, from a cognitive-based theory of language learning, WCF has been shown to be beneficial for learners when it addresses rule-based errors and is highly focussed. Based on this, some may feel justified in rejecting Truscott’s (1996) call to abandon the provision of WCF. However, before accepting these claims, there are some limitations of these studies I would like to draw attention to.

2.1.4 Limitations of Cognitive-based Studies

While the research that has been discussed thus far has at times noted external factors such as the background of participants (see Bitchener, 2008; Bitchener et al., 2005; Ellis et al., 2008), they have rarely been factored into conclusions concerning the learning potential of WCF. This is evident in several studies aiming to find a direct causal link between a single episode of WCF and
an improvement in grammatical accuracy. Truscott (2007) highlights an excellent example of the exclusion of external factors in Bitchener et al. (2005). In Bitchener et al., the treatment groups received significantly more classroom instruction than the control group—with the group displaying the most improvement receiving five times more instruction than the control group. I argue this is a factor that has the potential to skew results.

Another potential limitation of the research underpinned by cognitive theories of language learning is the use of highly focussed WCF. As van Beuningen et al. (2012) point out, focussing on one type of error does not accurately represent the practices of most teachers. This is substantiated, as research has shown students prefer to receive comprehensive feedback (Amrhein & Nassaji, 2010; Diab, 2005; I. Lee, 2004), and teachers are sometimes required by their institutions to provide comprehensive WCF (Alshahrani & Storch, 2014). The longer-term learning value of unfocussed WCF has produced mixed results (see Truscott & Hsu, 2008; van Beuningen et al., 2008, 2012). The significant investigation of WCF in regard to article usage has produced positive results, even in the long term (see Bitchener & Knoch, 2009b, 2010a). However, as Shintani and Ellis (2013) note, there is a concern that such highly focussed feedback does not examine what else is happening in the written output. With the exception of few studies (Fathman & Whalley, 1990; Kepner, 1991; Sheppard, 1992), highly focussed grammatical feedback has resulted in the value of content related feedback and potential learning beyond the syntactic level to be largely neglected. These findings point towards a need to consider learning beyond the sentence level in the writing of language learners.

I also question the pre-/post-testing instrument used in many studies. The most commonly used instrument in these studies has been the use of pictures to create a narrative or describe a situation (see Bitchener, 2008; Bitchener & Knoch, 2009a, 2009b, 2010a, 2010b; Ellis et al., 2008; Sheen et al., 2009), with the justification being that the pictures naturally create obligatory contexts for articles. The extent to which the findings are a result of the artefact requires consideration (Nunan, 1992). Williams (2012) argues there is a danger that learners may treat post-treatment writing tasks as grammar tests, and therefore results do not truly reflect language development. I argue that this possibility is
enhanced when the post-treatment writing tasks are similar to those that received WCF. I also agree with Nunan in that there is a need to collect data from more than one source. With the exception of very few studies (see Ellis et al., 2008; Sheen, 2007; Shintani & Ellis, 2013), much of the research has collected data from a single source—a writing task in the same genre as the pre-test.

Finally, whilst I agree with the importance of examining if the knowledge created and/or primed via WCF becomes internalised, i.e. implicit knowledge, I argue that Shintani and Ellis’ (2013) study had some design flaws when investigating the effect of WCF on implicit knowledge. I agree with Polio (2012), when she argues that writing draws on both implicit and explicit knowledge; however, speaking tasks, more often than not, require implicit knowledge to be drawn upon to complete them in a fluent manner. Therefore, rather than the narrative writing tasks used in Shintani and Ellis, I argue that multiple, less structured oral production tasks would be a more accurate measure of how WCF is impacting a language learner’s implicit knowledge. Shintani and Ellis also acknowledge this limitation in their study.

To conclude, I am not advocating that there is no value in the research discussed thus far, nor am I refuting the results of these studies. I am, however, arguing that while the research discussed has made important contributions to our understanding of WCF, it has limitations in how far it can develop our understanding. The research has utilised testing instruments that arguably do not reflect authentic output, has utilised highly focussed feedback that is not reflective of real-life classroom practices, and fails to incorporate external factors. Finally, it has not furthered an understanding of the why and how. For language teachers to improve our pedagogical practices, I argue we need to uncover why learners sometimes do, and do not, benefit from WCF. In order to begin to overcome these limitations, a new paradigm to view and investigate WCF is required.

2.2 Introduction to SCT

In contrast to cognitive-interactionist theories of language learning, within which learning is seen as a phenomenon occurring within the mind of an
individual learner (Sheen, 2011), SCT views learning as the result of social interactions (Gibbons, 2002). A key construct of SCT is that the human mind is mediated (Vygotsky, 1978). Vygotsky argued that just as we act on the material world with tools, such as using a hammer to knock in a nail, we use symbolic tools such as language to mediate our cognitive functions (Lantolf, 2000). This mediation can take three forms: object-, other-, and self-regulation (Lantolf & Appel, 1994). Object-regulation is defined as physical, or concrete, objects in the environment regulating the individual (Lantolf & Appel, 1994; Swain, Steinman, & Kinnear, 2011). The most common example provided in the literature to explain this is a child being tasked with retrieving a specific item, but on the way to retrieving it, is distracted by another object in their environment, resulting in the child either fetching the wrong item or forgetting the original task and playing with a different toy (see Lantolf & Appel, 1994; Swain et al., 2011). When considering language learners, Lantolf, Thorne, and Poehner (2014) describe object-regulation as instances in which resources such as a dictionary or translation tool are being used to mediate their behaviour. Other-regulation refers to regulation being received from another person (Lantolf et al., 2014; Swain et al., 2011), with Lantolf and Appel (1994) stating that other-regulation principally takes the form of participation in dialogue. Therefore, other-regulation for a language learner can be conceptualised as the learner participating in a dialogue, which acts as a tool that mediates their linguistic behaviour. Self-regulation refers to a learner no longer requiring external mediation to perform a task due to the object- and/or other-regulation having been internalised (Lantolf & Appel, 1994; Swain et al., 2011). These key constructs exemplify how a SCT approach to language learning shifts the focus away from mastering linguistic items in the mind of an individual and emphasises “dialectic interaction” to create meaning (Lantolf & Pavlenko, 1995, p. 110).

The phenomena of a learner reducing the amount of object- and other-regulation and shifting towards self-regulation is argued to occur when a learner is working in a ZPD (Lantolf & Appel, 1994). Vygotsky’s definition of a ZPD was originally translated as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in
collaboration with more capable peers” (Vygotsky, 1978, p. 86). However, it needs to be noted that due to Vygotsky only explicitly referring to the ZPD on a few occasions in his writings, there has been considerable controversy on exactly how it is to be conceptualised (Wertsch, 2010). For example, as Ohta (2005) points out, the original definition was coined with child development in mind and not language learners, and as such she argues the ZPD should include learners utilising mediation via literary resources such as dictionaries and textbooks. The scope of this literature review does not facilitate an in-depth discussion on the controversies of how the ZPD should, and should not, be interpreted. In the context of this literature review, the key studies have basically interpreted the ZPD as per Vygotsky’s original translation, with it being extended to include the following notions: learners of different levels are capable of assisting each other (Ohta, 2000); a collective expert can be created when learners of a similar ability pool their resources (Donato, 1994); and mediation also taking the form of object-regulation to include literary resources such as dictionaries and textbooks (Ohta, 2005).

A shift towards SCT also requires a change in how learning is measured. In contrast to the studies underpinned by cognitive theories of language learning, SCT postulates that learning and development should not be measured solely in terms of correct output, but also consider the quantity and quality of assistance required for a learner to complete a task (Lantolf et al., 2014). Therefore, while on the surface a learner’s output may not have changed, development is considered to have occurred if the quality of the assistance has become more implicit.

Lantolf et al. (2014) point out the relevance of the more recent neurobiological research of Paradis (2009) and Ullman (2005, 2014) concerning explicit and implicit knowledge. Paradis and Ullman posit that a distinction between explicit or implicit knowledge is not biologically supported, and that knowledge belongs to one of two memory systems: procedural or declarative. While the intricacies of Paradis and Ullman’s work are beyond the scope of this thesis, Lantolf et al. point out two important elements they argue are directly relevant for SCT. The first of these is that knowledge learnt in the declarative system, or declarative knowledge, cannot be transformed into procedural
knowledge. The second element they highlight is that declarative knowledge, through practice, can be accessed fluently and quickly, and as such can be useful for spontaneous output. Declarative knowledge is usually learnt “through intentional and conscious instruction” (Lantolf et al., 2014, p. 220) or “conscious attention to input stimuli”, and can be learned quickly (Ullman, 2014, p. 139). Procedural knowledge is usually “acquired in immersion settings” (Lantolf et al., 2014, p. 219), lacks attention to stimuli and is learnt through repeated exposure over a longer period of time (Ullman, 2014). Based on these understandings, any knowledge co-constructed through the collaborative processing of WCF on jointly produced texts is most likely going to be declarative. It is important to note that while procedural memory serves implicit knowledge only, the declarative system serves both explicit and implicit knowledge (Ullman, 2014). Therefore, in SCT the issue is not whether the explicit knowledge generated from WCF becomes implicit, but rather whether any declarative knowledge constructed via WCF becomes a readily accessible linguistic resource for the learner or not.

As this brief overview of key constructs of SCT shows, WCF is theoretically supported within a SCT perspective of language learning. The feedback is viewed as mediational tool that may facilitate learning and development. Additionally, any knowledge created or primed via WCF is considered to be useful for a language learner, as both the declarative and procedural knowledge is considered useful for a language learner. Before proceeding with the studies underpinned by SCT, however, I believe it is worthwhile to clarify two terms used in this section of the literature review. These are:

Language Related Episode (LRE): a term originally coined by Swain and Lapkin (1995) to describe the phenomenon of learners discussing the language they are producing. It was expanded to include the discussion of language that has been produced, including the discussion of written CF (Swain & Lapkin, 2002)
Reformulation: a learner’s text being re-written in a more natural manner by a native-level speaker while maintaining the original author(s) intention (Cohen, 1983).

2.2.1 Graduated feedback

One manner by which constructs of SCT have been implemented in studies investigating WCF has been the provision of graduated or negotiated feedback. The key notion in such studies is that a minimal amount of assistance is provided; by doing so, the interlocutor providing the feedback (the expert) and the learner (the novice) are involved in a dialogic interaction in which the learner’s ZPD is negotiated. In other words, the expert first provides very implicit feedback and based on whether or not the learner is able to find a solution, the level of explicitness of the feedback is increased until the learner finds a solution. When discussing studies that have employed this approach, the terms ‘graduated feedback’, ‘negotiated feedback’, and ‘feedback attuned to a learner’s ZPD’ are used interchangeably in both the extant literature and this literature review.

A key study implementing such graduated feedback is Aljaafreh and Lantolf (1994), who investigated the usefulness of corrective feedback in writing by analysing not only learners’ new pieces of writing but also by examining the quality and frequency of mediation required for learners to find and correct specific linguistic forms. In line with a SCT framework, a shift towards a more implicit type of feedback to find and correct a linguistic error was considered language development. Aljaafreh and Lantolf conducted the study over an eight-week period with adult learners of English at an American university. The study utilised focussed feedback, addressing articles, tense marking, prepositions and modal verbs, and consisted of five feedback sessions. Participants moved through a process of first attempting to revise their texts alone to gradually receiving assistance from a tutor. In other words, the level of assistance, or explicitness, gradually increased as per the participant’s individual needs on a case by case basis. Due to the need for the feedback to be dynamic, it was provided orally. Over the course of the study, Aljaafreh and Lantolf found that participants benefited from feedback that was attuned to their ZPD, with all participants moving towards self-regulation, i.e. requiring less explicit feedback. Aljaafreh
and Lantolf found that the same error can represent different problems for the learner due to the specific error being located in very different places within their respective ZPDs. This highlights how written output or performance in a test does not paint the full picture of a language learner’s interlanguage. Aljaafreh and Lantolf concluded that the ZPD is dynamic and co-constructed in dialogic interaction. They also concluded that a learner does not move from needing explicit feedback to full appropriation, but rather it is an evolving, non-linear process by which a learner gradually becomes less reliant on external help and more reliant on internal assistance.

The research conducted by Aljaafreh and Lantolf (1994) on graduated feedback when responding to writing has been further investigated by comparing learners who received feedback attuned to their individual ZPD and those who received feedback that did not consider the learner’s individual ZPD (for example Erlam, Ellis, & Batstone, 2013; Nassaji & Swain, 2000; Rassaei, 2019). In the same manner as Aljaafreh and Lantolf, the feedback was delivered orally, with the level of explicitness increasing as per learner needs. Nassaji and Swain (2000) conducted a case study comparing two learners: one who received feedback within their ZPD and one who received feedback not adjusted to their ZPD. The study utilised highly focussed feedback by targeting articles only, and included both qualitative and quantitative measures to evaluate language development. The qualitative measures were similar to Aljaafreh and Lantolf—assessing the level of prompting required for a learner to identify and correct their errors. The quantitative measures were in the form of a cloze test implemented at the end of the study. Nassaji and Swain found that the learner who received feedback that was attuned to their ZPD showed consistent improvement in qualitative measures both within a single tutorial and across tutorials. The same learner also showed greater improvement in the post-test. Nassaji and Swain concluded that feedback attuned to a learner’s ZPD was more helpful than feedback that has not been negotiated to co-construct the individual learner’s ZPD.

Erlam et al. (2013) also compared the effects of negotiated and non-negotiated feedback by performing an approximate replication of Aljaafreh and Lantolf (1994). Language development was measured in the same manner as
Aljaafreh and Lantolf by considering the quality of assistance required for a learner to identify and correct errors. Erlam and colleagues found that whilst the negotiated feedback was more beneficial for encouraging learners to self-correct, it did not result in a reduction of the explicitness of feedback required in subsequent negotiations of feedback. This led Erlam et al. to conclude that graduated feedback is no more effective than explicit feedback. However, as Bitchener and Storch (2016) highlight, there are some design flaws that require consideration when interpreting these results. Firstly, there were only two feedback sessions. As previously argued, language development is not linear (Lightbown & Spada, 1999; Nunan, 2001). Aljaafreh and Lantolf allowed for some of this variance by providing participants in their study with five feedback sessions. Erlam et al. did not allow for such variation. This argument is further evidenced in Lantolf, Kurtz, and Kisselev (2016). Lantolf and colleagues provide both theoretical arguments and empirical evidence to counter Erlam et al.’s conclusions based on Vygotsky’s notion of the revolutionary nature of learning, and re-examined the data from Aljaafreh’s (1992) thesis—which was utilised in the study conducted by Aljaafreh and Lantolf. Additionally, the two groups of participants in Erlam et al. were at different language levels and enrolled in different language courses, with the group that received negotiated feedback being enrolled in a General English course and the non-negotiated feedback being enrolled in an Academic English course. As I mentioned earlier, the exclusion of such factors has been a common critique of the studies underpinned by cognitive views of language learning and is argued to be an important consideration when interpreting results. Despite these potential flaws, Erlam et al. do raise an extremely important issue regarding practicality, with the reported time required to provide attuned feedback being above 26 minutes per learner. It is likely that language teachers may find such an approach unsustainable due to class size and time constraints.

One manner to overcome this issue of practicality is for the feedback to be attuned to a group of learners. Poehner (2009) outlines both theoretical and empirical evidence of how this can occur in group dynamic assessment. Poehner argues that feedback provided to one learner has the potential to benefit other members of the group as they participate as “secondary interactants” (p. 477).
While the data Poehner analysed is not concerned with writing tasks, the theoretical principle is relevant for responding to the writing of language learners. Rassaei (2019) implemented Poehner’s ideas in a writing context by investigating the notion of attuned feedback being provided to a group when responding to the writing of language learners. Rassaei divided participants into five groups: graduated feedback provided to a group; graduated feedback provided to learners individually; explicit feedback provided to a group; explicit feedback provided to learners individually, and a control group that did not receive feedback on the targeted errors. Such grouping facilitated a comparison between learners who received graduated feedback as a group and individually, with the results corroborating Poehner’s claim that all members of the group can benefit from graduated feedback. In Rassaei’s study, not only did participants who received negotiated feedback as a group benefit, they actually showed more benefit than those who received negotiated feedback individually. The other comparison the study facilitated was a comparison between learners who received graduated feedback and those who received explicit feedback, with the study finding that both the group and individual graduated feedback groups displayed more evidence of development than those that received explicit feedback.

When considering the results of Rassaei (2019), the type of texts used and the relevance of these texts in language classrooms requires consideration. Participants wrote a text individually in response to a set of six sequenced picture prompts. The nature of this writing task enabled feedback to be provided to groups by having the teacher read one section of each of the group member’s text. In other words, the teacher would read learner A’s text, which was related to the first picture prompt; then for the second picture prompt they would read the relevant section from learner B’s text, and so on, until all six pictures that made up the story had been discussed. As each section of the text was being read, the teacher highlighted errors by providing graduated feedback to the learner who had written that particular section of text. If the author of that particular section was not able to utilise the feedback to find a solution, other group members were called upon for further assistance and acted as secondary interactants. The same type of graduated feedback was provided to participants receiving feedback individually in one-to-one conferences with the teacher. The insights provided by
Rassaei are significant in evidencing that attuned feedback to writing may not only be provided to group of learners, but that it is more beneficial than when receiving it individually—a finding that extends the knowledge of earlier studies such as Aljaafreh and Lantolf (1994) and Nassaji and Swain (2000). Furthermore, from the perspective of teachers in the classroom, the manner by which Rassaei provided the feedback overcomes the issue of the length of time it takes a teacher to provide graduated feedback to individual learners. However, there still remains an issue of practicality. The methods employed by Rassaei are, I argue, reliant on the type of text produced and it is difficult to see how the same method of providing feedback would be applied to other genres of writing when members of a group have written completely different texts. The use of sequenced picture prompts may be suitable in some writing classrooms, but in many cases, in particular classes focusing on academic writing, the innovative method used by Rassaei is not appropriate. Accordingly, such a method may only be useful in limited circumstances.

Another critique of the studies that expanded on the work of Aljaafreh and Lantolf (1994) is that by comparing learners who received graduated feedback and those who did not, they are assuming participants are identical objects. Such an assumption neglects the fact that humans are exposed to a plethora of external influences and participants are not identical (Yates, 2004). Therefore, while the learners who received feedback within their ZPD displayed greater improvement in Nassaji and Swain (2000) and Rassaei (2019), the same result may have occurred if these learners received feedback that did not account for their ZPD.

One way by which to take a step towards overcoming the individual uniqueness of language learners is for the same individuals to receive different types of feedback and only compare these, rather than different individuals who received different types of feedback. Nassaji (2012) took this approach and investigated the potential benefits of providing feedback that is within a learner’s ZPD by comparing non-negotiated feedback (or direct WCF), feedback with limited negotiation, and negotiated feedback. Participants received all three types of feedback for three writing tasks; i.e., after the first one, all participants received non-negotiated feedback; after the second, all participants received limited negotiated feedback; and after the third participants received negotiated
feedback. This methodology is important to note as it overcomes the critique identified in Nassaji and Swain (2000), Erlam et al. (2013) and Rassaei (2019), as rather than comparing individuals who received different forms of feedback, the study compares how different forms of feedback affected each individual. Participants were divided into two groups, with one group receiving feedback for errors concerning article use only, and the other group for prepositions only. After each feedback session, participants completed a post-test on two occasions: three and ten days after the feedback had been received. The post-tests were learner-specific and contained the original erroneous sentences the participants had produced. Participants were instructed to locate and correct the errors in the sentences. For both the immediate and delayed post-tests, Nassaji found that the negotiated feedback was more beneficial for participants.

With the exception of Erlam et al. (2013), the studies investigating the provision of graduated feedback show that feedback attuned to a learner’s ZPD is more useful for language development than feedback that does not consider an individual learner’s ZPD. Furthermore, the studies corroborate Wells’ (1998) contention that the ZPD is not a fixed characteristic of a learner, but rather it is dynamic, and created through interaction. However, as I have noted, there are some limitations that need to be considered when considering these studies. Firstly, some studies do not use new writing tasks to evaluate learning (for example Nassaji, 2012; Nassaji & Swain, 2000). Furthermore, some studies have compared different participants who received different types of feedback and assumed that the only difference between participants was the feedback (for example Erlam et al., 2013; Nassaji & Swain, 2000; Rassaei, 2019). From a language teacher’s point of view, while the graduated feedback provided in Aljaafreh and Lantolf (1994) shows much promise, there is the issue of practicality due to time constraints, as providing graduated feedback to each individual learner has been reported as taking an average of over 26 minutes per learner (Erlam et al., 2013). Rassaei (2019) provides a way to help teachers overcome this, and while his approach appears to be effective, it is limited to narrative writing tasks that utilise sequenced picture prompts, and as such will not be suitable for all writing classrooms. Therefore, for language teachers hoping to employ a SCT approach to respond to their learner’s writing, another strategy is
needed. One manner to do this is to utilise the unique linguistic resources each learner brings into the classroom to create what Donato (1994) refers to as a “collective scaffold”, in which learners are “individually novices” but “collectively experts” (p. 46).

The notion of individual learners utilising their own resources is theoretically supported within SCT as learners pool their linguistic resources together to form a collective expert, with group members not always individually knowing the answer but being able to discover it through collaboration when pooling their resources (Donato, 1994). This can include group members utilising incorrect suggestions to find a solution to a linguistic problem (Dobao, 2012; Donato, 1994). Two practical methods by which to implement this are for learners to provide feedback to each other, i.e. peer feedback, and to process WCF collaboratively. These two approaches also embrace the notion that learners of differing levels are able to help each other, including instances of a learner of lower proficiency assisting one of a higher proficiency (Ohta, 2000). Therefore, while learners are not necessarily strategically providing each other with graduated feedback, meaning is being made and knowledge is being shaped through the use of language, a process referred to as *languaging* (Swain, 2006; Swain et al., 2011). Studies investigating the provision of peer feedback will be first reviewed, followed a review of those that investigate learners collaboratively processing WCF.

### 2.2.2 Peer feedback studies

Some key studies that investigated peer feedback include Guerrero and Villamil (1994, 2000) and Villamil and Guerrero (1996, 1998). While the original data set for all of these studies is the same, the four papers have all taken a different approach to analysing the data. The data was further examined in Villamil and Guerrero (2019). In short, the data collection consisted of participants writing a draft of a text, and then being randomly assigned a partner to form a dyad. The researchers then judged which text out of the two for each dyad required the most revision, which would become the one that received feedback. As such, only one member of the dyad received feedback from a peer. When considering the studies collectively, the results consistently showed that
learners were able to collaborate and scaffold each other in a manner that resulted in learners being able to perform at a level higher than they could have if working individually; that through dialogue one member was often able to act as an expert to guide the partner to find a solution; and that a collective expert similar to what Donato (1994) found often emerged. One of the research questions from Villamil and Guerrero (1996) is of particular importance to this study, and, I argue, to our understanding of a SCT-informed view of WCF. In the 1996 study, Villamil and Guerrero investigated the strategies used to facilitate the peer revision process. They found five: the use of symbols and external resources; the use of Spanish (their dominant language); mutual scaffolding; their own interlanguage; and the vocalisation of private speech, which refers to speech directed at oneself to mediate one’s own behaviour (Lantolf, 2000; Swain et al., 2011).

Villamil and Guerrero (1996) found that the external resources took the form of dictionary usage, prompt sheets, and requests for help from other peers or the teacher. Requests for help from other classmates or the teacher usually consisted of the other person acting as a human dictionary. The use of Spanish, the participants’ common and dominant language, occurred in 95% of participant interactions. This was not simply a case of Spanish being used occasionally, but rather Villamil and Guerrero reported that Spanish was the main vehicle of expression, with English often only being used to specify particular parts of the text. Spanish was also a tool that enabled learners to make meaning of the text, access their linguistic resources, develop content, guide the activity, and maintain the dialogue. The symbols used by participants included asterisks, circling sections of the text and parenthesis—tools utilised as a form of assistance when writing out the revised draft of the text. It was reported that participants also scaffolded each other during their interactions, using strategies that included providing advice, responding to advice, requesting clarification and justifying decisions. Despite no traditional expert being present, Villamil and Guerrero reported that incorrect solutions were rare, with participants often falling back onto their own interlanguage to identify and find troublesome sections. Finally, it was also found that the process of vocalizing private speech helped to guide one’s own behaviour and acted as a mechanism to release emotions. In Villamil and Guerrero (1998), further examination of the data revealed that 74% of the
suggested solutions reached during the peer feedback sessions appeared in the final draft. Additionally, they reported that further revisions were made when participants wrote out their edited draft after the feedback session, leading them to conclude that the peer feedback sessions led to an increase in participant’s ability to revise a text. This led Villamil and Guerrero to conclude that this increased ability to revise a text was further evidence of development. Villamil and Guerrero’s (2019) re-examination of their data has important implications for this study. Their analysis revealed that in addition to the traditional expert-novice interactions, scaffolding was often mutual, or unidirectional, and not necessarily being provided by the more knowledge other. Rather, a common interactional pattern was for each member of the dyad supporting each other to find solutions, further evidencing that peers can scaffold each other while editing their writing.

Without disregarding the importance of the work produced by Villamil and Guerrero (1996, 1998, 2019), some areas of interest that require further investigation arise. Firstly, in their 1996 paper, the issue of how symbols, external resources and the use of participants’ dominant language impacted the processing of the feedback was not discussed. For example, questions such as whether the use of these tools impacted the activity in positive ways or whether the tools also deprived participants of opportunities for learning were not explored. Understanding how these tools affect the learning potential of WCF is of much importance. I argue that understanding this from the perspective of participants through retrospective interviews is needed to help us recognise how the learning potential of WCF can be augmented. Additionally, the learners’ perspective of what they believe they learnt from the process of receiving and providing feedback was not taken into consideration. In Villamil and Guerrero (1998), the edited drafts of texts were examined to note how suggestions from peers were or were not incorporated into new drafts. However, this implicitly equates incorporating an edit into a new draft as learning, without considering which of these edits the participants themselves perceived as learning. Furthermore, without any new pieces of writing, we are not able to determine if these interactions had lasting effects on participants. I argue that participant perspectives on what was learnt requires consideration, and the way any learning
is used in new pieces of writing is a crucial component of any evaluation of how best to respond to the writing of language learners.

2.2.3 Collaborative processing of WCF

As I mentioned earlier in section 2.2.1, another way to employ a SCT perspective when responding to the writing of language learners that overcomes the time constraints noted in Erlam et al. (2013) is for learners to collaboratively process the WCF. Swain and Lapkin (2002) investigated the outcomes of learners working in pairs throughout the whole writing process, including receiving and processing of WCF. After participants co-constructed a text, they received feedback in the form of a reformulation. After discussing the reformulation, participants took part in a stimulated recall session to identify what they had learnt. This was followed by participants making changes to a typed-up version of their original text. Swain and Lapkin found that Language Related Episodes (LREs) resulted in uptake of WCF, with learners utilising the knowledge co-constructed during LREs in the post-test of the study. This further corroborates Donato (1994), who found that two or more learners could collectively scaffold each other, rather than being scaffolded solely through expert-novice (teacher-student) interactions.

Adams (2003) performed a very similar study to Swain and Lapkin (2002). However, Adams organised participants into the following groups: task repetition (no feedback); reformulation; reformulation and stimulated recall. This facilitated a comparison between the effects of practice only, discussion of feedback and what, if any, effect the stimulated recall has on learning. Adams found that all groups improved their performance when repeating the writing task, with the groups who received feedback and discussed it improving significantly more than the practice only group. Adams also found that the stimulated recall session had a positive impact on learning, and thus when stimulated recall sessions are utilised before a post-test, this positive effect needs to be noted as stimulated recall sessions are not likely to be a practical pedagogical tool.

Storch and Wigglesworth (2010) further investigated the approach of learners collaboratively processing WCF by studying the impact different types of feedback have on the quality of LREs and levels of engagement by comparing
direct feedback (in the form of reformulations) and indirect feedback. They found that indirect feedback tended to increase the quality of LREs when compared with direct WCF and that extensive discussion on morphosyntactic and lexical errors led to an increase in grammatical accuracy of learners’ second attempt at the same task. Storch and Wigglesworth also highlight that the type of error may influence the level of engagement required for uptake, with mechanical errors—such as spelling errors—often being taken up despite a low level of engagement. Analysis of the LREs generated via WCF has also revealed the significant role affective factors play in the learning potential of WCF. Misaligned learner goals, dissatisfaction with the type of feedback, and violation of a learner’s interlanguage rules were found to reduce the uptake of WCF, and as such its learning potential (Storch & Wigglesworth, 2010). The affective factors identified in Storch and Wigglesworth corroborate Hyland (1998, 2003), who also highlighted the important influence of affective factors when considering the potential benefits of WCF. In similar manner to Erlam et al. (2013), Nassaji and Swain (2000), and Rassaei (2019), Storch and Wigglesworth compared participants who received different types of WCF. This results in the potential limitation that it is difficult to assess which type of WCF is more beneficial, because, as Yates (2004) points out, we should not assume that the higher quality of LREs displayed by participants who received indirect WCF would have been of a lower quality if they had received direct WCF. I argue there is a need for the same participants to receive both types of WCF and then examine what is learnt to identify any differences in the benefits of either type.

In a slightly different vein, Brooks and Swain (2009) compared the amount of languaging that occurred during the collaborative writing stage and collaboratively processing a reformulation stage of the writing process. Brooks and Swain found that while languaging which was beneficial occurred in both stages, it was during the collaborative writing stage in which the most enduring episodes of languaging occurred. While the collaborative writing stage of the writing process is beyond the scope of this study, Brooks and Swain’s study provides evidence that the opportunity to write collaboratively before processing any WCF is an important step to include in the writing process.
By pooling the results of Swain and Lapkin (2002), Adams (2003), Brooks and Swain (2009) and Storch and Wigglesworth (2010), the emerging picture is that the collaborative processing of WCF through co-constructed texts offers benefits for learners. These studies have also offered more practical value, as reformulations by their very nature address all errors. As such, these studies show benefits for learners with a far broader range of errors than the earlier studies underpinned by cognitive theories of language learning (for example Bitchener et al., 2005; Ellis et al., 2008; Sheen et al., 2009) and some SCT-based studies that used targeted selected errors only (for example Nassaji, 2012; Nassaji & Swain, 2000). However, I argue there are two issues that require consideration when evaluating the studies that utilised reformulations. The first is the method by which learning has been measured. In these studies, the post-test used to measure learning is a repeat of the original task. When using a repeat task, it is possible that a participant has remembered chunks of language and is merely reproducing these chunks during a post-test rather than having actually experienced any changes to their linguistic resources. There is a need to investigate whether or not this co-constructed knowledge can be used in new communicative tasks or not. Secondly, whilst reformulations may be a manner to provide direct feedback that is beneficial for learners, the issue of practicality once again arises. When considering that most language learning classes consist of 20 or more students, it is impractical for a teacher to re-write multiple texts in a timely manner for learners.

Whilst not explicitly underpinned by SCT, one study which utilised collaborative processing of WCF and new pieces of writing to evaluate learning is Kim and Emeliyanova (2019). Based on Kim (2008), which argued for the learning benefits of collaboration over individual tasks, Kim and Emeliyanova hypothesised that collaboratively processing WCF would also bring about similar results. The study compared the effect of learners processing indirect WCF provided by their teacher individually and collaboratively. It should be noted that participants who processed the feedback collaboratively were processing feedback on individually written texts. They found that those who processed the WCF in pairs were slightly more successful in correctly revising their texts and had less instances of incorrect revisions. However, when completing the final
writing task, which acted as a post-test, no benefit from collaboratively processing the feedback was evident. Kim and Emeliyanova argue that a possible reason for their results contradicting not only their own hypothesis, but also results of earlier studies (Nassaji, 2012; Nassaji & Swain, 2000; Rassaei, 2019), is that the texts were written individually, and participants may not have had the sense of ownership a co-constructed text may produce, leading to a lower level of investment in the activity of processing the feedback. While the post-test used was a new piece of writing, and as such overcomes one potential shortcoming of Swain and Lapkin (2002), Adams (2003), and Storch and Wigglesworth (2010), the non-linear nature of learning was not considered due to only one episode of output being used to evaluate the effect on new pieces of writing. Furthermore, the learner’s perspective of what they believe they learnt was not considered, with any learning being perceived as only evidenced in correct output, which ignores the findings of Aljaafreh and Lantolf (1994) which highlighted that errors can look identical on the surface but actually occupy different spaces within a learner’s individual ZPD. However, Kim and Emeliyanova’s study does highlight that it is not simply a case of learners processing feedback collaboratively; rather, it seems that having a sense of ownership of the text through co-construction is also a factor that impacts on the potential benefits of the collaborative processing of WCF. This highlights the importance of learners jointly producing their texts when collaboratively processing WCF.

As I previously mentioned, while studies that have utilised reformulations to provide comprehensive direct WCF to learners on co-constructed texts have shown them to be beneficial for learners (Adams, 2003; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002), it is impractical for most language teachers to be expected to write reformulations for all pairs in a class (Yang & Zhang, 2010). One solution to this issue is rather than a teacher providing reformulations for each dyad in a class, a model answer can be provided for the whole class. Coyle, Cánovas Guirao, and Roca de Larios (2018) state that a model is a native-like text attuned to match the proficiency of learners, but differs from a reformulation in that it is not based on the learner’s original attempt at the writing task. The use of models as a form of WCF remains under researched (Coyle et al., 2018).
Some recent studies utilising models as a form of WCF with adult English language learners include Hanaoka (2007) and García Mayo and Labandibar (2017). In addition to these studies, comparisons between the benefits of a reformulation and model text as feedback were made by Yang and Zhang (2010) and Hanaoka and Izumi (2012). While these studies do not neatly fit into a SCT framework, they do offer insights of relevance to this study. Models have been found to be beneficial for learners when used as feedback after the completion of a writing task, with learners noticing differences between their own text and the model text (García Mayo & Labandibar, 2017; Hanaoka, 2007; Hanaoka & Izumi, 2012; Yang & Zhang, 2010). When comparing the benefits of a reformulation and a model text, results indicate that the latter was used to find solutions to problems visible in participant output as well as covert problems, which refer to problems a participant had in expressing themselves that were not visible in output (Hanaoka & Izumi, 2012; Yang & Zhang, 2010). Reformulations were also found to be beneficial; however, the benefits were mainly assisting participants with problems visible in their output and not so helpful in dealing with covert problems (Hanaoka & Izumi, 2012; Yang & Zhang, 2010). Based on Allwright, Woodley, and Allwright (1988), Yang and Zhang go on to argue that a model offers learners more benefits because it is a good example on how to complete the whole discourse, whereas a reformulation only offers more native-like recasts of the original text, which may be missing other important elements.

With the exception of Yang and Zhang (2010), the studies investigating the use of models have been implemented with participants performing their tasks individually. Additionally, the benefits of a model were viewed through cognitive-based theories of language learning. However, of particular relevance to this study is that in Yang and Zhang, participants worked in pairs during the writing and processing of feedback stages of the study. While the authors do not explicitly underpin their study with SCT, they do argue that discussion was an important aspect of the writing and processing feedback stages of the study. Therefore, these studies do pave the way for teachers to be justified in using model texts rather than reformulations, and the languaging that occurs as learners process a model text continues to be shown to contribute to the learning benefits of the WCF. However, in all of the studies investigating the use of models as a
form of WCF, the post-tests used to evaluate the learning were once again a repeat of the original task—again leaving the uncertainty of whether or not the knowledge derived from the feedback can be used in new, non-repeat tasks.

2.3 Activity Theory—a potential way forward

The final area I would like to map out in this literature review is activity theory (AT). In brief, AT emerged as an extension of SCT (Kaptelinin & Nardi, 2012). Rather than focusing on the traditional notion of the “who and what” of an activity, AT also asks how, where, when and why. For a detailed discussion of AT, please see section 3.2 where I explain the theoretical framework of this study.

On a few occasions when discussing the extant literature on WCF I have pointed towards the fact the there is a need for the how and why to be examined in order to further our understanding of WCF and improve our pedagogical practices. For example, when discussing the findings of Villamil and Guerrero (1996), I stated that the strategies used by learners they identified were of much importance, but the impact of these strategies had on learning, when and why they were used, and how they were perceived as helpful by learners was not expanded on. AT provides a framework to help achieve this. The call to view WCF through the lens of AT to enable weaknesses in the feedback cycle to be identified and improved upon has been made by other researchers (for example Bitchener & Storch, 2016; I. Lee, 2014; Storch, 2018). As Storch points out, in the extant literature on WCF, participant details are often limited to very general attributes such as age, gender and language level. She goes on to argue that important factors such as the classroom context, learner goals, relationships in the classroom, participant history, beliefs, cultural norms and expectations and so forth are often not considered. Storch argues AT is a framework that can help us understand how all of these factors interact within learners’ experiences of receiving WCF. When considering the studies investigating WCF through an AT lens, Bitchener and Storch (2016) point out that while there are very few studies that have explicitly stated AT as their theoretical framework (for example Jin & Zhu, 2010), other studies have implicitly utilised AT (for example Hyland, 1998) by considering aspects such as learner goals and history.
The studies that have utilised AT have, in my opinion, further highlighted the complexity of WCF. For example, in I. Lee (2014), in which she re-examines her data from her earlier study (I. Lee, 2008b), it was found that the contextual factors such as the rules and power of the educational institution significantly impacted the ability for teachers to try to use alternative practices when providing WCF. In G. Lee and Schallert (2008), the in-depth experiences of two learners show how their own goals and history shaped their perceptions of WCF, which in turn influenced how they responded to WCF and what learning potential it had for them. In investigating learner responses to WCF, I. Lee (2008a) found teacher attitude towards students and how the WCF was presented impacted on the ‘learning potential of WCF. Thorne (2004) examined the whole context of lower-level Spanish learners receiving WCF from more proficient learners and identified features of the activity system that could be improved upon. While studies such as those aforementioned provide us with important insights into the factors beyond a simple causal relationship between WCF and learning, there still remains what I believe to be both a large and significant gap in the studies that use the lens of AT.

The collaborative processing of WCF has yet to be investigated through the lens of AT. Furthermore, questions such as which tools participants use, why they use them and how these tools are, or are not, helpful have yet to be adequately investigated, as well as issues such as how a learner’s background impacts their interaction with the activity of collaboratively processing WCF. For example, does a learner’s background and expected behaviour restrict the use of tools that may be beneficial when processing WCF? Learner agency and ingrained beliefs in interlanguage have been identified as reasons for feedback being rejected (Storch & Wigglesworth, 2010; Swain & Lapkin, 2002); however, are there other factors such as the relationship between pairs or the rapport between students and the teacher that are impacting the learning potential of WCF? I argue that an investigation into these types of questions through the use of AT will enable Lee’s (2014) and Bitchener and Storch’s (2016) goal of identifying the weaknesses in the feedback cycle to be achieved and improved on. It is this gap in the literature that has informed the aims of this study, which are: to investigate how learners experience the process of collaboratively processing
WCF; to identify the factors that impact its learning potential; and to understand how learners use co-constructed knowledge generated via WCF in subsequent output. This final aspect of output deserves further explanation. A common limitation of the studies set within SCT and AT is that they have not utilised new pieces of writing to examine how learners are able to use knowledge co-constructed during feedback session. However, a further point I want to make is that none of the studies have examined how this knowledge is used in more spontaneous production. As I noted earlier, in SCT declarative knowledge is held to be valuable because it can, with practice, become available in a manner similar to procedural knowledge (Lantolf et al., 2014). Therefore, investigating whether any co-constructed declarative knowledge can be used in speech is an important research direction when viewing WCF through a SCT lens. This study aims to contribute to these gaps in the literature.

2.4 Conclusions

In this chapter, key studies in the field of WCF have been reviewed. I started with studies underpinned by cognitive theories of language learning. The aim here was to highlight that while there has been significant research within this framework, the traditional method of a teacher providing WCF to learners on their texts and learners processing this WCF individually has really only found support when it addresses a limited number of lexical items—in particular the referential use of articles. Additionally, I argued that a limitation of this research was the neglect of external factors and potential limitations of the testing methods used in these studies. To overcome these constraints, I argued that a new paradigm in which to view and investigate WCF is needed, which led the discussion of WCF into the realm of SCT.

When presenting the studies underpinned by SCT, I presented them in two main sections. The first were studies that used graduated WCF. I explained that while all but one of these studies found WCF to be beneficial for learners; the issue of practicality arises due to it being too time consuming to provide in one-to-one conferences between the teacher and a student. When providing the graduated feedback to groups of learners, the time issue is overcome. However, such an approach appears to only be amenable to a limited genre of texts.
I then outlined another method by which to implement a SCT approach to provide WCF, which was to allow learners to form a collective expert by combining their own unique linguistic resources. Implementing this approach took two forms. The first was peer feedback. I outlined studies in which peers provided oral feedback on their classmates’ individually produced texts, which found that pairs were able to form a collective expert. These findings are of importance as they suggest that SCT principles do not require a traditional expert, but rather there are benefits of peer-to-peer interactions. I noted that these studies are very important in identifying the strategies learners use when processing feedback. However, how these strategies benefited or limited learning was not fully investigated from the perspective of the learner and only text revisions were examined.

I then reviewed studies that have implemented a SCT approach throughout the whole writing process, by having learners co-write a text and then collaboratively process feedback provided by the teacher. The majority of these studies utilised a reformulation and showed that learners could co-construct knowledge and use it when performing the task individually. However, the post-test was a repeat of the original task, which as I argue raises concerns on how potential benefits of WCF are measured. Furthermore, while reformulations show much promise as a form of WCF, again language teachers are left with the problem of practicality, as it is not reasonable to expect a teacher to re-write texts for all pairs that make up most real-life sized classrooms. The area of collaboratively processed indirect WCF was identified as an under-researched area. I also noted that any comparisons of collaboratively processing direct WCF and indirect WCF need to include a study design that allows the same participants to experience both types of feedback. Understanding which type of WCF generated the most learning, from the perspective of the learner, is a key aspect to further our understanding of WCF. As a solution to the impracticality of reformulations, I then surveyed literature that used model texts as a form of WCF. While only one of these studies, albeit implicitly, drew on SCT, the findings did indicate that models are an alternative to reformulations which afforded different benefits. I argued that the use of models is, therefore, a solution for language teachers to overcome the impracticality of reformulations.
Finally, I highlighted that several researchers have called for AT to be used to help us gain a deeper understanding of how the social and environmental factors are interacting with each other to influence the learning potential of WCF. While studies using AT have been few, they have shed light on the complexity of WCF being far from a simple causal relationship between the feedback and learning. I also pointed out that no studies utilising AT have examined collaborative processing of WCF or utilised new writing and speaking tasks to examine how learners use co-constructed knowledge generated via WCF in subsequent output.

It is these interesting gaps in the literature that have not only informed the aims of this study, but also its design, which I will describe in the following chapter.
Chapter 3: Frameworks and Methodology

In the previous chapter, I outlined the literature on written corrective feedback (WCF) to provide an overview of what we know about responding to the writing of language learners thus far. I argued there is a need for WCF to be viewed through a sociocultural theory (SCT) lens and presented areas within the literature on WCF underpinned by a SCT framework that remain under-researched. The aim of this was to provide the background to this study and to reveal the origins and foundations of this project, and to contextualise my research questions, which are:

1. How do learners experience and engage with the collaborative processing of WCF on co-constructed texts?

2. What factors impact the learning potential of collaboratively processing WCF?

3. How is the co-constructed knowledge generated via collaboratively processing WCF drawn upon during individual output?

The first half of this chapter discusses the key concepts of language learning that underpin this study and how activity theory (AT) was interpreted and utilised. While a brief summary of the main tenets of SCT was provided in the previous chapter, there are several other constructs that form the foundation of a socioculturally informed view of language learning and that require further discussion. By further explicating these constructs, I provide more detail on what this study will be investigating and how these constructs impacted all other aspects of the research design. This is followed by a discussion on why AT is the appropriate theoretical lens and how the theory will be interpreted in this study.

The second half of the chapter discusses how these key concepts and AT were implemented in the approach used to investigate the research questions. This section begins by first discussing why this study was best approached through qualitative data and the ontological and epistemological positioning of this project. This is followed by a more detailed description of how I approached answering the research questions. Specifically, I discuss how the nature of this
project warranted a case study approach. I also elaborate on the recruitment of participants, the multiple data sources, and the setting of the study. The chapter then discusses the implementation of the study, which includes a timetable of when data was collected and provides examples of the WCF participants received. In the final sections of the chapter the approach used to analyse the data and how themes were able to emerge within an AT framework are outlined. The chapter concludes with a discussion on how validity (or as I will go on to explain in section 3.9, trustworthiness) of data was ensured and the ethical considerations applied throughout the study.

3.1 Conceptual framework: language learning from a SCT perspective

In the literature review I argued that there was a need for WCF to be viewed through a lens informed by SCT. While the brief outline of SCT provided in the literature review aimed to paint a backdrop against which the literature could be reviewed, there is a need for some concepts of the SCT framework of language learning that underpin this study to be further discussed.

In the literature review I explained that a key tenet of SCT is that the human mind is mediated (Lantolf, 2000; Vygotsky, 1978), with mediation taking the form of object-, other- and self-regulation. In each of these forms of regulation, language plays a key role (Watanabe, 2014). The term *languaging* was used by Merrill Swain to encapsulate the notion of language mediating our thinking. Swain (2006, p. 98) defines languaging as “the process of making meaning and shaping knowledge and experience through language”. This shifts conceptualising output as a medium to transfer a message, to conceptualising it as both a cognitive and social activity, and as such language learning and output are considered to occur simultaneously (Swain, 2000). In other words, output is where *language learning takes place* rather than a *result* of learning. The process of languaging can occur while talking to another, talking with another or with oneself (Swain, 2006). Therefore, languaging can take the form of collaborative dialogue or private speech. Collaborative dialogue is a term that has been used to refer to the co-construction of knowledge for one or more people, as two or more interlocutors engage in dialogue as they participate in languaging (Swain et al.,
Private speech refers to speech directed at oneself, with the speech mediating one’s own behaviour (Lantolf, 2000; Swain et al., 2011). It needs to be noted that private speech may be either covert or overt (Lantolf & Thorne, 2006; Swain et al., 2011). As learners discuss language use, it is natural that they draw on all available linguistic resources, including those that are not in the target language (Lantolf et al., 2014). Therefore, languaging should not be limited to an activity carried out in the target language. This resulted in participants being made aware that they were free to utilise languages other than English when participating in this study.

The role of collaborative dialogue and private speech that I have outlined above is congruent with the broader view of a sociocultural approach to learning, which posits that a person’s higher order cognitive functions, such as volitional attention and planning, are considered to develop via social interactions (Lantolf et al., 2014). In this sense, development first occurs on the interpersonal plane and then shifts towards the intrapersonal plane, as the new skill is performed without outside mediation (Aljaafreh & Lantolf, 1994). To understand this in the context of language learning, it means that much, but not necessarily all, of language learning is visible on the interpersonal plane as a learner engages in collaborative dialogue and overt private speech. This view of development results in this study aiming to capture language learning as it happens, through the video-recording of participant interactions, as they language in the form of collaborative dialogue and private speech. This is not to say, however, that input does not play a role in language learning. Within a SCT view of language learning, the interactions necessary for language development include interacting with texts, and thus the act of reading them (Lantolf et al., 2014, p. 218).

Recent SCT research has argued that when language instruction is attuned to a learner’s zone of proximal development (ZPD), the instruction influences the order in which learners acquire linguistic resources as evidenced in their output (Lantolf & Poehner, 2014; Zhang & Lantolf, 2015), rather than a pre-conceived natural order that cannot be altered, as argued in Pienemann (1998) and Pienemann and Lenzing (2014). While not specifically discussing language learning, Valsiner and Van der Veer (1999) have argued against pre-determining which functions a learner should receive assistance with, because such a notion
presumes which functions are starting to emerge within the learner and assumes that other underdeveloped (and possibly yet to become visible) functions cannot be used when completing the task. Wells (1998) also discusses a similar notion, stating that, in practice, the upper boundary of a ZPD is unknown, and unforeseen learning may emerge. In my study, I therefore did not assume a pre-conceived idea of which linguistic knowledge participants may be more likely to learn or develop over other linguistic knowledge. For example, I did not consider that participants would be more likely to develop their knowledge of article usage rather than their ability to use the passive voice, and as such participants were provided with WCF which addressed all errors.

With the third research question aiming to investigate how learners use co-constructed knowledge when performing writing and speaking tasks individually, I am, in effect, investigating how co-constructed knowledge has been (or as I will go on to explain, is in the process of being) internalised. If we apply Lantolf’s (2005, p. 342) explanation of internalisation as “an individual’s ability to function independently of specific concrete circumstances” to this project, then internalisation can be considered as a participant’s ability to use knowledge co-constructed via collaboratively processing WCF when producing writing or speech in the absence of object- and other-regulation.

The term internalisation may conjure up an image of knowledge flowing in one direction, with knowledge being transferred from the interpersonal plane into the head of an individual learner. However, as Lantolf (2005) argues, this is not what is meant by internalisation. A central notion in Vygotsky’s theory of mind is that the individual and the social are not separated, but rather the individual and the social are part of a “monistic” unity (Lantolf & Thorne, 2006, p. 154; Robbins, 2003, p. 5). Winegar (1997) goes on to explain that the process of internalisation is negotiated through both the interpersonal and intrapersonal planes. In other words, output, or the externalisation of co-constructed knowledge, is not necessarily a result of internalisation, but rather forms part of internalisation. Van Oers (1998) warns us against considering any internalised knowledge suddenly becoming free from external influence. With this view in mind, some internalised linguistic resources will continue to constantly adapt and change in parallel with the social environment an individual interacts with.
(Atkinson, 2002; Lantolf, 2005). This view of internalisation means that by providing participants with the opportunity to utilise co-constructed knowledge when individually writing or speaking, the study not only gives the opportunity to witness evidence of internalised knowledge being used, but also to observe internalisation as it happens.

Within the process of internalisation, imitation is given a key role (Guerrero & Commander, 2013; Lantolf & Thorne, 2006; Swain et al., 2011). Imitation in SCT is not mindless repetition, but intentional, goal directed, transformative behaviour (Vygotsky, 2012). As evidenced in Saville-Troike (1988), sometimes this transformation involves learners producing utterances that are ungrammatical. Imitation is not limited to instances of private speech, but can also occur on the interpersonal plane and may occur after a delay from the original social interaction (Lantolf & Yáñez, 2003; Tomasello, 2003). Therefore, co-constructed knowledge that participants use in an ungrammatical manner is considered as part of development and not necessarily an error in the initial learning.

Two final points on imitation and internalisation that I would like to mention are learner agency and the non-linear nature of learning. Within SCT, learners are considered to be active agents (Storch, 2018). This results in taking the position that learners decide what is relevant and significant, and as such they may choose to not use co-constructed knowledge when the opportunity arises for any number of reasons. In other words, failure to utilise co-constructed knowledge does not mean no learning occurred. A final point to note when considering imitation is that language learning is a non-linear process (Nunan, 1992). In SCT, this is often referred to as Vygotsky’s “revolutionary” view of the development of a person, which is unpredictable and includes “regression to earlier forms of thinking” (Lantolf & Thorne, 2006, p. 52). This means that I had no expectation of a participant continually moving towards more natural usage of any co-constructed knowledge; the correct usage of co-constructed knowledge followed by incorrect usage is considered a natural part of the learning process and not a so-called backwards step.
In this first section, the language learning concepts that underpin this study have been explained. I will now introduce the theoretical framework used in this study and describe how it was not only appropriate from a practical point of view but also in line with the language learning beliefs described above.

3.2 Theoretical framework: Activity Theory

As I have already mentioned in the literature review, there has been a call for WCF to be viewed through the lens of AT on many occasions (see I. Lee, 2014; Storch, 2018) and it was these calls that sparked my interest in AT. Despite these calls for AT to be utilised, I still needed to look deeper to consider whether or not AT would be the best approach for this study. I will now discuss these considerations.

3.2.1 Background and suitability of AT

AT emerged as an extension of SCT (Kaptelinin & Nardi, 2012), and is generally accepted as having three versions, referred to as generations (Engeström, 2014). The first generation (G1) of AT was based on the work of Vygotsky, founded on his notion that an individual does not act directly upon an object, but rather acts on it through mediational means (Engeström, 2001). While the model was innovative for its time due to incorporating cultural mediational artefacts in analysis of an activity and thus overcoming the Cartesian split of an individual and the social, it focused on the individual and not the social (Engeström, 2014). Leont’ev’s work is associated with the second generation (G2) of the theory and endeavoured to illuminate the interdependence between an individual and the activity’s sociocultural setting in a more explicit manner (Bitchener & Storch, 2016, p. 79). Engeström further developed the work of Leont’ev late in the theory’s G2 (Lantolf & Thorne, 2006, p. 222) expanding the theory to include the following elements: subject(s); tools and signs; object; rules; community; and division of labour (Engeström, 1987). This expansion then looks at an activity in terms of the intricate interactions between the subject and their surrounding community (Engeström, 2014). Engeström explains that a third generation (G3) was developed due to the need to allow for multiple points of view to be accounted for.
While there have been different interpretations of the theory, the common theme that can be identified is AT looks beyond what a person does and to what, or whom, they act upon and looks at the how, why, where and when. From a practical point of view, AT meets the needs of this study for several reasons. Firstly, the theory has been argued to be a “descriptive tool” that enables the complexities of a learning activity to be understood (Barahona, 2015, p. 67). As discussed in the literature review, the issue of generating language learning and development via WCF is complex and requires all facets of learning to be considered. In the first research question, it is these complex facets that this study intends to illuminate. Secondly, one of the aims of the first research question is to understand the learning generated via discussion of WCF in a specific context. AT is a tool that allows learning activities to be analysed in their specific setting (Murphy & Rodriguez-Manzanares, 2008). Thirdly, AT has been argued to be a framework that will enable weaknesses in the feedback cycle to be identified and improved upon (Bitchener & Storch, 2016; I. Lee, 2014). In answering the second research question, the study endeavours to contribute to the theory and knowledge of WCF by contributing to a greater understanding of how to maximise its learning potential through the identification of possible weaknesses in the feedback cycle. Furthermore, earlier studies in education have used AT to analyse perceptions of students and teachers (for example Mwalongo, 2015). AT provides a theoretical framework that facilitates the analysis of student perceptions concerning their experiences with collaboratively processing WCF. Finally, this study collected rich data from a variety of sources. AT is a framework that enables researchers to understand complex data (Yamagata-Lynch, 2010). As these characteristics of AT show, the theory meets the practical needs of this study.

3.2.2 Interpretation and application of AT

In line with the view that in the social sciences reality is socially constructed and as such a single event may have multiple realities (see 3.3 for more details), it was the G3 version of AT that was appropriate for investigating the first two research questions of this study. A visual representation of how Bitchener and Storch (2016) adapt Engeström’s (2001) visual representation of
AT G3 and interpret the theory in the context of a pair collaboratively processing WCF is presented in Figure 3.1.

I would like to further expand here some concepts that were instrumental in my interpretation of AT for this project. The first is that of the work of Wells (2002) and the notion of the object in a joint activity being both a symbolic and material artefact. I agree with Foot (2014) when she explains that the object of an activity system has three facets, these being “a thing to be acted upon”, “an objectified motive”, and a “desired outcome” (p. 333). I would like to further explore the first facet of the object—the “thing to be acted upon”. Wells posits that AT tends to emphasise the object (in the sense of the thing that is worked on) of the activity to take a physical form, also referred to as a material, or physical, artefact. In a writing class for language learners, the material artefact would be the text learners produce. Wells goes on to argue that such an orientation leads to discourse being considered as a tool that mediates the activity, but fails to account for how the dialogue has created a semiotic artefact; the semiotic artefact of meaning being co-constructed. Therefore, the object is argued to be both material and symbolic as participants engage in dialogue in attempts to increase their understanding of the object being investigated (Cole, 1996; Wells, 2002). When participants process indirect WCF and edit their texts, this results in the object of the activity being both a material artefact—in the text participants produce as a result of processing the WCF—and a symbolic artefact—participants’ understanding of the English language. Both are being acted upon during the
activity. This results in outcomes that are both material and symbolic in nature (Wells, 2002). In this project, the outcomes of processing indirect WCF are both material and symbolic—material in the form of the edited text and symbolic in the form of co-constructed knowledge that resulted from the activity.

This notion of the object and outcomes being both material and symbolic is very important to note during feedback sessions in which participants process direct WCF in the form of an example answer (a feedback session, in this case, refers to participants collaboratively processing all instances of WCF received for one draft of a collaborative writing task). In feedback sessions that utilise direct WCF, there is no material outcome of the activity. Rather, at the end of the activity, the intended outcome is completely symbolic—changes to each participant’s interlanguage. Wells (2002) goes on to point out that there is no physical evidence of the symbolic outcome produced through dialogue, unless it is audio- or video-recorded. A visual representation of my interpretation of AT is shown in Figure 3.2 for indirect WCF, and in Figure 3.3 for direct WCF in the form of an example answer.

**Figure 3.2: Activity System for Indirect WCF**

In Figure 3.3, the shaded area in the centre of the outcome is the material outcome—the edited version of the co-constructed text. The symbolic outcome surrounding this, as indicated by broken lines (---) and dotted lines (…), represent any knowledge co-constructed during the activity. This co-constructed knowledge may have manifested itself in the material artefact in the form of written language in the edited text. It may, however, not be evidenced in the material object and only exist in the mind of the participant. Consequently, the symbolic outcome, or co-constructed knowledge, may be thought of as any changes to the interlanguage.
system of a participant resulting from the interactions that occurred during the feedback session. Such immediate events are referred to as microgenesis, defined as “cognitive development that occurs moment by moment” (Ohta, 2000, p. 54) including learning lexis and grammatical components of a language (Lantolf, 2000, p. 3). The co-constructed knowledge is represented as two overlapping circles because what participants perceive as co-constructed knowledge may be different for each participant.

Figure 3.3: AT G3 Framework for Direct WCF

As Figure 3.3 illustrates, when processing direct WCF there is only a symbolic outcome—that is, any knowledge participants believe they co-constructed while discussing the example answer with each other. It too is represented as two overlapping circles as some co-constructed knowledge may be shared between participants, but it may also be different for each participant. In the same manner as the indirect WCF, the symbolic outcome represents any changes to the interlanguage system of a participant resulting from the interactions that occurred during the feedback session.

As mentioned earlier, there are two other facets to an object described by Foot (2014): “an objectified motive” and a “desired outcome” (p. 333). The objectified motive has also been referred to as the “object of the game” (Nardi, 1996, p. 37). When processing indirect WCF and editing their texts, the object of the game was for participants to respond to the WCF by editing the first draft of their co-constructed text. When processing direct WCF, the objectified motive was to discuss the example answer. The desired outcome can be thought of as a participant’s individual language learning goals; or, in other words, the reasons behind why they are participating in the activity and what goals will be achieved by improving their English language skills.
The remaining aspects of an activity system in the upper section of the triangles in Figures 3.3 and 3.4 are the aspects of participant and tools. While the aspect of a participant may seem simplistic, we need to remember, as Engeström (2001, p. 136) points out, that all of us belong to several activity systems, which interact with each other. One example of applying Engeström’s notion in this study is that current and previous language learning experiences are likely to influence how participants perceive and act in this study. Foot (2014, p. 331) defines tools as the things participants use to act on the object or for the desired outcome to be pursued. These tools can be material or symbolic. In this study, the tools available to participants when processing WCF included: pens/pencils and paper; the WCF they were provided with; language—the English language and any other languages a participant may speak; and an inanimate expert in the form of literary resources such as online dictionaries and other online language resources.

The remaining aspects of the activity system in the lower section of the triangle are: rules, community and division of labour. The rules of the activity are also sometimes referred to as the expected behaviour. In this study, the term expected behaviour better encapsulates the context of the feedback sessions due to the classes not belonging to a formal educational context. The community can be thought of as the classroom “within which the activity takes place” (Bitchener & Storch, 2016, p. 83). In this study, each pair and I made up this community. The division of labour needs to be considered from both a horizontal and vertical perspective (Bitchener & Storch, 2016; Foot, 2014). From a horizontal perspective, I am referring to who does what; for example, one participant might have written out the edited draft of a text. When considering division of labour form the vertical perspective, I am looking at the power relations between participants. When describing the vertical dimension of the division of labour, I drew on the work of Damon and Phelps (1989) and Storch (2002), who have used the terms equality and mutuality to describe a pair. In this context, equality refers to the authority over the direction of the task and mutuality refers to the level of interest shown to each other’s suggestions (Damon & Phelps, 1989, p. 10).

I would like to point out that the aspects that make up an activity system within the AT G3 framework are multi-directional and interdependent—as
indicated by the arrows going in multiple directions in Figures 3.2 and 3.3. AT is not a framework that is designed to disaggregate each aspect (Leont’ev, 1978). Furthermore, the aspects of an activity should not be considered as fixed, but rather as constantly changing (Cole, 1996). Therefore, rather than applying the AT G3 framework for all of the feedback sessions as whole, each feedback session was considered separately in order to ensure these changes could be illuminated when investigating the first two research questions.

When considering the third research question—how participants utilised co-constructed knowledge in individual output—AT G2 was applied rather than the G3 framework. This is because only one participant’s perspective is presented when discussing how each individual learner used co-constructed knowledge from the feedback sessions in individual output. Furthermore, the framework was applied in an implicit manner, similar to studies such as G. Lee and Schallert (2008), in which aspects such as learner agency and learning goals were given considerable focus. A visual representation of this is presented in Figure 3.4.

Figure 3.4: AT G2 framework applied when investigating research question 3

When investigating research question 3, the study is, in effect, examining how the symbolic outcome of the earlier feedback sessions has or has not become a tool to assist learners in acting upon the new object presented in their individual tasks. Therefore, the question investigates the material outcome of the activity but not any symbolic outcome learners may have experienced. As such, there is only one circle representing the outcome—the writing participants produced or the transcriptions of the audio-recorded speaking tasks participants completed. Such an analysis moves away from the microgenetic domain, or immediate events, of
the first two research questions and slightly towards the ontogenetic domain, with ontogenesis referring to “the internalization of mediational means over a lifetime” (Swain et al., 2015, p. 150). A final point on both the G₃ and G₂ frameworks I have outlined is that while it may appear as if the researcher views the activity from above, AT demands that the activity be viewed from the perspective of the participant(s) (Engeström & Miettinen, 1999, p. 10). This means that data sources need to capture both the activity as it unfolds and the participant’s perspectives of what happened during the activity.

In this first half of this chapter, I have discussed the conceptual theoretical framework of this study. In the following second half (sections 3.3 through 3.9), I describe how these concepts have been applied in the research design of this project.

3.3 Qualitative data and philosophical underpinnings

The research aims of this study required qualitative data to be collected, with the research questions being investigated in an interpretivist paradigm. By attempting to provide a rich description of learner experiences, it is anticipated that the findings will provide valuable insights into the potential benefits of collaboratively processed WCF. While there are different approaches to defining qualitative research, a common thread in all approaches is that it seeks to understand something from an emic perspective (Merriam & Tisdell, 2015). Additionally, it is the interpretivist, also known as constructivist, paradigm which seeks understanding through the interpretation of participant perspectives (Lincoln et al., 2011). Therefore, this study is best investigated via qualitative data in an interpretivist paradigm.

Interpretivist research posits that there is not one single reality which is observable, but rather reality is socially constructed and as such there are multiple realities of a single event (Merriam & Tisdell, 2015). Therefore, this study attempts to understand the social realities participants constructed for themselves as they participated in this study. A key aspect of an interpretative paradigm is that the research needs to be carried out with the premise that the attitudes and behaviour of each participant make sense to them and any judgement by the
researcher should be suspended (Hammersley & Campbell, 2012). I interpret this to mean that the reality participants constructed is true to them, and as such should be considered as one of multiple realities. The underpinning language learning beliefs and use of AT take an epistemological position that learning and knowledge is created as people interact with and participate in their social environment.

3.4 Case study

The term case study does not have a single definition that is universally accepted. In fact, there are of plethora of definitions (Flyvbjerg, 2011). Therefore, rather than attempt to provide a concise definition of the term, I will discuss characteristics that have been argued to constitute a case study.

The most distinguishing characteristic of a case study is the delimitation of the object to be studied (Flyvbjerg, 2011; Merriam, 2009). In this sense, a case study is a choice of what is to be studied rather than a methodological choice (Flyvbjerg, 2011; O’Toole & Beckett, 2013), for the case itself could be investigated through a variety of methods (Flyvberg, 2011). Another characteristic of a case study is the research being complete, rich and detailed in its description (Flyvbjerg, 2011; O’Toole & Beckett, 2013). Such a description is often described as ‘thick’—a term Geertz (1973) used to refer to understanding what something means in its context rather than merely describing what happened. A third characteristic of case studies is that they often investigate interconnected events over a period of time, with the time and place the events transpired also making up the case (Flyvbjerg, 2011). Finally, Flyvbjerg argues that case studies focus on context—a notion that Merriam agrees with by stating that knowledge from case studies is more contextual when compared to alternative research designs.

With these characteristics of case study in mind, this research is in line with the notion that case study is not a methodological choice, but a choice of what is to be studied (Flyvbjerg, 2011; O’Toole & Beckett, 2013). For this project, it was not a methodological decision to perform a case study, or to label it as such due to the small number of participants. To be sure, the very nature of the
project demanded a unit of study which was delimited, with a thick description of interrelated events over a set period of time and a focus on participant context.

Case studies are not without critique. They have been traditionally considered as a “soft and weak” approach to research when compared with other studies regarded as more robust (van Lier, 2005, p. 195). However, despite this, van Lier points out their importance within general education and language education, for example the case studies of Halliday (1975), Schmidt (1983), and Schmidt and Frota (1986). The theoretical positions developed from these case studies have been considerably influential in forming the base of knowledge now available to researchers and theorists in the field of language education (van Lier, 2005). In fact, some of the influential studies discussed in the literature review either reported on or consisted of case studies involving two or three participants (for example Aljaafreh & Lantolf, 1994; Nassaji & Swain, 2000; Swain & Lapkin, 2002). Indeed, Aljaafreh and Lantolf’s study is regarded as seminal when considering feedback within a SCT framework (Bitchener & Storch, 2016, p. 88). Therefore, as Yin (2009) argues, case studies may not be generalisable to populations, but they are generalizable to theoretical positions. Therefore, despite the results from this study being non-extrapolatable, in a similar manner to the aforementioned studies, the insights and rich descriptions it aims to provide are argued to contribute important new knowledge to the field and assist TESOL educators and researchers come closer to a more complete understanding of WCF and its contributions to language development.

As I will discuss in more depth in following section (3.5), this case study comprised of two pairs, and thus the case for this study is four English language learners in Melbourne collaboratively processing WCF. Here, the project requires consideration as to whether or not the study should be one single case with embedded units or two separate cases. Baxter and Jack (2008) argue that the key difference in defining whether a case study is one particular case or multiple cases depends on context. They state that when the context is the same, it is a single case study, which may consist of several embedded units of analysis. Yin (2009) further explains that one rationale for a single case approach is to investigate typical examples of a phenomenon, but a multiple case study is often used to with the aims of replication. With participants in this study being a typical
case of English language learners working in pairs to collaborative process WCF in the same context and no aims of replication, this is therefore a single case study with embedded units.

3.5 Recruitment, sample and context

Storch (2010) has argued that there are benefits of WCF being investigated in authentic classrooms due to the provision and processing of the feedback being situated in its natural environment and the activity having a clear purpose. However, before applying for ethics approval, I realised that this would not be possible. Due to the significant amount of qualitative data required per participant, the number of participants needed to be limited to approximately six to eight individuals. All potential contacts I have at formal language institutions have class numbers significantly higher than this. Attempting to collect data at one of these sites would have resulted in participants being video-recorded in front of their peers, which may have made them feel uncomfortable and limited the natural course of their interactions. In order to overcome this, I decided the project needed to be an authentic classroom in and of itself—with participants participating in a series of ten English language classes tailored to their needs. While the series of English classes conducted for this study may only form part of a participant’s educational context, the AT framework ensures external factors are considered. Despite there being no formal assessment, participants had a strong motivation to improve their English skills, evidenced by their volunteering to participate in the study. Consequently, I argue that the benefits outlined by Storch are, to a sufficient degree, present in this study.

After gaining ethics approval, I circulated a call for participation in English Language Intensive Course of Study (ELICOS) providers in Melbourne and international student notice boards. Participants were free to self-identify as a pre-made pair or as an individual to be paired with other participants. The option for participants to self-identify as an individual was provided to avoid the exclusion of any potential participants who may not have known an appropriate language learner to self-identify with. A total of eight participants volunteered to participate in the study, six of which self-identified as a pre-made pair and two as individuals who needed a partner. Unfortunately, two of the three pre-made pairs
were not able to continue with the study due to business travel commitments for one participant and scheduling issues for another. This left one pre-made pair and two participants who were paired up by the researcher.

The two participants who volunteered individually, Carol and Kazue, had similar language learning goals related to practicing and studying medicine in Australia. This, combined with a similar language level, turned out to be fortuitous. The remaining pre-made pair, Natsuko and Yumi, shared more general English language goals, mainly to help adapt to life in Australia and help them perform their part-time work duties. They also shared a similar level of English. This too was fortunate, in that the two pairs that made up the case offered different embedded units of analysis; this, as Baxter and Jack (2008) argue, allows for a more powerful illumination of the case by facilitating data to be analysed both within and across sub-units. A detailed introduction of Carol and Kazue and Natsuko and Yumi is provided in sections 4.3 and 5.1 respectively. Data for the two pairs who participated in this study was collected separately. In other words, each pair and the researcher formed a separate class and each pair’s ten lesson course was different. The was necessary for both scheduling reasons and due to Carol and Kazue having very different language learning goals and being of a higher level of proficiency. The classes were conducted on campus in a seminar room at a university in Melbourne.

3.6 Data collection instruments

In order to answer the research questions, the following data collection instruments were utilised: audio-recording of an interview conducted prior to the commencement of the study (hereafter referred to as pre-interview); collaborative writing tasks; video-recordings of feedback sessions (participants collaboratively processing all instances of WCF received for one draft of a co-constructed text); audio-recorded retrospective interviews; individual writing tasks, and audio-recordings of individual speaking tasks. In the following section, I will briefly describe these data sources and explain why I utilised them.
3.6.1 Pre-interview

Prior to the study commencing, participants took part in a pre-interview which was audio-recorded. The purpose of this pre-interview was to attain an estimation of the language level of participants and their language learning goals. This was particularly important to help pair up participants who volunteered individually rather than as a pre-made pair. The interview also helped me to understand the experiences participants brought with them to the study and their lives in a more general sense. This background information was important because the AT framework requires activity systems outside of the activity being analysed to be considered. The interview was semi-structured (see Appendix 1 for sample questions), allowing participants to elaborate on any issues concerning their learned experiences, expectations and perceptions of not only WCF but also English language study in general.

3.6.2 Collaborative writing tasks

Participants wrote two texts collaboratively (two drafts for each task). The collaborative tasks formed the platform from which WCF was used to initiate interactions between participants, the WCF and other external tools such as online dictionaries. The writing tasks were chosen in line with participant language learning goals. A detailed description of the writing tasks and the rationale behind them is provided in Chapter 4 for the first pair (Carol and Kazue) and Chapter 5 for the second pair (Natsuko and Yumi). A typed-up copy of all collaborative writing tasks is provided in Appendix 2. All collaborative writing tasks were handwritten rather than typed. This was to reduce any potential technical problems when collecting data, and in line with classroom practice at the language centres three of the four participants were attending during this study.

3.6.3 Video-recorded feedback sessions

Participants participated in four feedback sessions in which they collaboratively processed WCF. These feedback sessions were video-recorded. Video-recordings were chosen for several reasons. Firstly, a recording of the feedback sessions captured the symbolic outcome of the feedback sessions. Without a video-recording, participants and I would have had to rely on memory
when discussing the feedback sessions during the retrospective interviews. The video-recordings also acted as a strong aid in eliciting participant experiences by providing them with a visual reminder of their experiences during retrospective interviews. Secondly, video-recordings assisted in capturing paralinguistic behaviour, which was important to assist in the identification of instances of overt private speech and to understand what participants were doing during any prolonged periods of silence.

3.6.4 Retrospective interviews

Participants participated in two retrospective interviews during the course of the study. The interviews were conducted individually and held after feedback sessions 2 and 4, and comprised of a stimulated recall and a semi-structured interview. Participants discussed their experiences with feedback sessions 1 and 2 in their first interview and sessions 3 and 4 in the second interview. During the stimulated recall, participants watched the video recording of their feedback sessions. Participants either stopped the video when they remembered something, or the video was stopped at selected points at which it appeared a response to an instance of WCF had been agreed upon. This allowed participants to explicate how they interpreted the interaction and identify any knowledge that had been co-constructed during the interaction. In order to ensure this was a smooth process, I watched the video-recordings prior to interviews to note where responses to each instance of WCF appeared to start and finish.

The stimulated recall utilised in the interviews had been used effectively in earlier studies investigating collaboratively processing WCF (see Adams, 2003; Swain & Lapkin, 2002). The interviews also allowed participants to describe the feedback sessions from their perspective rather than relying on my interpretation—which is a requirement of AT. The semi-structured interview aspect of the interviews allowed participants to describe their more general experiences with the feedback sessions, with the semi-structured nature of questions allowing unexpected issues to be captured (Barbour & Schostak, 2011). Sample questions are provided in Appendix 3.
3.6.5 Individual writing and speaking tasks

In order to investigate any evidence of internalisation, opportunities for a participant to use co-constructed knowledge when performing similar, but new, tasks when object- and other-regulation was not available were required. Due to the view that declarative knowledge may become useful in spontaneous output, both writing and speaking tasks were utilised, with four individual writing tasks and three speaking tasks being completed during the study.

Individual writing tasks 1 and 3 facilitated the opportunity for participants to use co-constructed knowledge from feedback sessions 1 and 2, and writing tasks 2 and 4 facilitated the opportunity to utilise knowledge co-constructed during feedback sessions 3 and 4. There was no set time limit for participants to complete these tasks. All individual writing tasks were handwritten.

At the end of each class, participants were given a speaking task to perform individually. They were provided with 60 seconds to prepare their answer, after which they audio-recorded their response. Participants’ speaking tasks were often disjointed, with all participants experiencing moments of being tongue-tied and difficulty in expressing themselves. This indicates that the 60-second planning time did not significantly reduce spontaneity, allowing participants to grasp the required background information to complete the task but not enough time to prepare a planned monologue to complete the task. While only three speaking tasks (tasks 6, 8 and 9) were used to facilitate the opportunity for participants to utilise any co-constructed knowledge, ten speaking tasks were performed. This was to ensure participants had become accustomed to having speaking tasks recorded before the recordings to be analysed were collected. Speaking tasks 6 and 8 facilitated the opportunity for co-constructed knowledge from feedback sessions 1 and 2 to be utilised. Speaking task 9 facilitated the opportunity to use knowledge created during feedback sessions 3 and 4. Only one speaking task that facilitated the utilisation of co-constructed knowledge from feedback sessions 3 and 4 was able to be performed due to scheduling issues. Adding another speaking task would have resulted in the video-recording of feedback sessions occurring very early in the study, potentially negatively
affecting it due to participants being afforded very little time to get used to their classroom environment before video-recording began.

Participants read over their writing and a transcript of their speaking tasks in the second retrospective interview and identified instances of them utilising, or deciding not to utilise, co-constructed knowledge from the feedback sessions. A typed-up copy of the individual writing tasks and a transcript of the speaking tasks are provided in Appendix 4.

### 3.7 Implementation of the study

The series of ten lessons were conducted over a different time frame for each pair. For Carol and Kazue, it was decided that lessons would be conducted twice a week due to Kazue indicating she may need to return to Japan less than ten weeks after the study commenced. Natsuko and Yumi’s study and work commitments meant that they were most comfortable with the lessons being conducted once a week. The data for Natsuko and Yumi was collected over a period of eleven weeks due to Natsuko travelling for one week during the study. The content of the lessons was negotiated with participants, and as such was different for each pair.

While the lesson content and timeline differed for each pair, the sequence of the study was the same; i.e. all processing of WCF and writing and speaking tasks occurred in the same lesson, it was just the number of days between lessons that varied. Feedback sessions 1 and 2 were carried out during their fourth and fifth lessons and the first retrospective interview was conducted before the sixth lesson. Feedback sessions 3 and 4 were performed during the seventh and eighth lessons, and the second retrospective interview was completed after the tenth lesson. A summary of each pair’s timeline for lesson content, retrospective interviews, and the writing and speaking tasks is provided in Table 3.1 for Carol and Kazue, and Table 3.2 for Natsuko and Yumi.

As Table 3.1 illustrates, Carol and Kazue’s series of ten lessons were conducted over a period of five weeks. In line with their language learning goals, the lesson content focussed on listening practice for the Occupational English Test (OET) Medical exam and the International English Language Testing
System (IELTS) Academic test. The listening practice for both the OET and IELTS exams were taken from the test preparation textbooks by Occupational English Test (2014) and Cameron and Todd (2008) respectively. There was no explicit grammatical instruction throughout the ten lessons nor was there any instruction on how to complete the writing tasks. As discussed in 3.1, the intention was to allow participants’ maturing linguistic knowledge to emerge rather than their language use to be influenced by explicit instruction on how to complete the tasks.

Table 3.1 Carol and Kazue’s Data Collection Timeline

<table>
<thead>
<tr>
<th>Lesson 1 (Day 1) April 20</th>
<th>Lesson 2 (Day 4) April 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reading task</td>
<td>• OET Listening practice</td>
</tr>
<tr>
<td>• Speaking Task 1</td>
<td>• Speaking Task 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 3 (Day 7) April 27</th>
<th>Lesson 4 (Day 11) May 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collaborative Writing Task 1</td>
<td>• Feedback Session 1: Pairs process indirect feedback for writing task 1, edit their text and resubmit it</td>
</tr>
<tr>
<td>• OET Listening practice</td>
<td>• IELTS speaking practice</td>
</tr>
<tr>
<td>• Speaking Task 3</td>
<td>• Speaking Task 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 5 (Day 12) May 2</th>
<th>Interview 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Feedback Session 2: Pairs process direct WCF for edited text, (no edits).</td>
<td>• Retrospective interview 1 conducted on day 15 (May 5) for Kazue; day 18 (May 21) for Carol</td>
</tr>
<tr>
<td>• Individual writing task 1</td>
<td></td>
</tr>
<tr>
<td>• Speaking Task 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 6 (Day 18) May 8</th>
<th>Lesson 7 (Day 21) May 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IELTS Section 2 Listening practice</td>
<td>• Feedback Session 3: Pairs receive indirect feedback on written task 2, discuss and process the feedback in pairs, edit their text and resubmit it.</td>
</tr>
<tr>
<td>• Collaborative Writing Task 2</td>
<td>• IELTS: Section 2 Listening practice</td>
</tr>
<tr>
<td>• Speaking Task 6</td>
<td>• Speaking Task 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 8 (Day 25)</th>
<th>Lesson 9 (Day 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Feedback Session 4: Pairs receive direct feedback on edited text, pairs discuss</td>
<td>• Individual Writing Task 3</td>
</tr>
<tr>
<td></td>
<td>• Listening OET Task 1 Practice Continued</td>
</tr>
</tbody>
</table>
As illustrated in Table 3.2, Natsuko and Yumi’s series of lessons were conducted over an eleven-week period. Natsuko and Yumi requested that lesson content focus mainly on listening, with a particular focus on bottom-up listening skills. In line with their language learning goals, the topics for listening practice consisted of current news events. The audio for listening practice was mainly taken from the website Behind the News (https://www.abc.net.au/btn/) as it covered recent news topics but used language that is less advanced than typical media outlets. They also requested some speaking practice and assistance in dealing with common phone call situations they encountered at their respective workplaces. There was one lesson that contained grammatical instruction, in lesson 9, to respond to a request for further help with definite article usage. In all other lessons there was no explicit grammatical instruction nor was there any instruction on how to complete the writing tasks.
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
</table>
| June 12   | Listening: Café ordering  
Speaking Task 3                                                                  |
| June 20   | for writing task 1, edit their text and resubmit it  
Listening: Solar farms  
Speaking Task 4                                                                  |
| Lesson 5  | Feedback Session 2: Pairs process direct WCF for edited text, (no edits).  
Individual writing task 1  
Listening: Vertical Farms  
Speaking Task 5                                                                  |
| Lesson 6  | IELTS Speaking practice  
Collaborative Writing Task 2  
Speaking Task 6                                                                  |
| Lesson 7  | Feedback Session 3: Pairs receive indirect feedback on written task 2, discuss and process the feedback in pairs, edit their text and resubmit it  
Listening: Sneaky Ads  
Speaking Task 7                                                                  |
| Lesson 8  | Feedback Session 4: Pairs receive direct feedback on edited text, pairs discuss the feedback (no edits)  
Listening: Gaming addiction  
Individual Writing Task 2  
Speaking Task 8                                                                  |
| Lesson 9  | Individual Writing Task 3  
Definite article presentation  
Listening: Affective frame Grey’s Anatomy  
Speaking Task 9                                                                  |
| Lesson 10 | Individual writing task 4  
Pronunciation Practice: /ɔ:/ and /əʊ/  
Speaking: Telephone practice  
Speaking Task 10                                                                |

As noted when describing the conceptual framework of this study in section 3.2, input is considered a necessary aspect of language learning within
With this in mind, extreme care was taken to ensure any knowledge co-constructed during a feedback session did not appear in the subsequent lesson materials. Doing so may have made it difficult for participants to attribute any learning to collaboratively processing WCF or experiencing it in input. Additionally, in line with a SCT framework and previous studies (for example Villamil & Guerrero, 1996, 1998), object-regulation in the form of utilising online dictionaries was available to learners when processing WCF.

As indicated in Table 3.1 and 3.2, all writing tasks which received WCF were written collaboratively. There are two reasons for this decision. Firstly, as noted in Chapter 2, Kim and Emeliyanova (2019) found that when learners collaboratively processed WCF on individually written texts, learners did not mutually scaffold each other in a similar manner to studies which utilised jointly produced texts (for example Swain & Lapkin, 2002, Adams, 2003) and as such the learning potential of the WCF diminished. Therefore, jointly produced texts are argued to ensure learners have more opportunity to benefit from both the WCF. Additionally, the process of writing collaboratively has been shown to have benefits for language learners (Brooks & Swain, 2009; Storch 2013). While any learning which occurred during the writing stage is beyond the scope of this study, facilitating access to such opportunities was an important ethical consideration to help ensure participants benefited from participation in this study.

3.7.1 Indirect WCF

After the first draft of participant’s hand-written texts were collected, I typed up a version of the text to which indirect WCF was added. Problematic areas of participant texts were divided into three categories: grammatical errors; content level errors; grammatical and content level errors. Sentences that contained grammatical errors only were highlighted in orange, with no information the exact location or type of error being provided. The reason for not providing additional assistance was to increase the chances of participants needing to pool their resources and/or use of external tools such as online literary resources when deciding how to respond to the WCF. An example of this type of feedback includes:
She presented the first time on 15th April due to stomachache which caused her indigestion.

(Carol & Kazue, Collaborative Writing Task 2, Draft 1)

Content feedback that commented on the overall ideational quality and discourse features of the writing was provided by highlighting sentences that could be strengthened or contained incorrect information in green. The types of content issues that arose included incorrect information and statements that would benefit from further explanation. The content feedback was accompanied by questions and/or prompts because such areas in the text did not necessarily contain an error per se but required editing to improve the text on a holistic level. An example of such feedback includes:

I am Yumi. Can you think of another way to introduce yourself?

(Natsuko & Yumi, Collaborative Writing Task 1, Draft 1)

When a sentence required editing from both a grammatical and content point of view, the sentence was highlighted in blue. In the same manner to the grammatical and content level WCF, no information on the exact location or type of grammatical error was provided, but prompts were given for the content level feedback. Examples of this feedback include:

If we don’t have a uniform, student can choose whatever they want to wear.

This paragraph discusses the opposing argument from the previous paragraph. Is there a phrase you could use to introduce this?

(Natsuko & Yumi, Collaborative Writing Task 2, Draft 1)

In line with the view that I should not assume a learning trajectory of which linguistic items participants were more likely to learn or develop, the feedback was comprehensive and addressed all errors. Content level feedback was provided because I did not limit the potential co-constructed knowledge to grammatical knowledge, but believed that knowledge concerned with discourse
features may also be co-constructed through social interactions. Additionally, there was the ethical concern that learners may assume that the goal of writing in the target language is to produce grammatically correct texts rather than the communicative impact of their writing, a problem noted by Amrhein and Nassaji (2010). Participants received an explanation of the indirect WCF before the first feedback session. Indirect feedback was processed in feedback sessions 1 and 3.

3.7.2 Direct WCF

After participants responded to the indirect WCF and submitted their second draft of the writing task, I again typed up a version of their hand-written text. Based on the second draft, I then wrote an example answer. I have chosen this term because it does not fully demonstrate the characteristics of a model answer or a reformulation. As stated in the literature review, a model answer is defined as a nativelike text attuned to learners’ level but is not based on the learner’s original attempt at the task (Coyle et al., 2018). A reformulation is based on the learner’s original attempt and re-written in a more native-like manner (Cohen, 1983). The example answer utilised in this study was somewhere in between these two, with some aspects of the example dealing with issues reflected in participant’s text, and thus similar to a reformulation. However, the example also dealt with the text as a whole discourse, and thus contained information not included in original attempt at the task. The direct WCF would have been suitable for multiple pairs. The decision to utilise this type of example answer was due to practicality. While reformulations have been evidenced as an effective method to respond to the writing of language learners (see Adams, 2003; Swain & Lapkin, 2002; Storch & Wiggsworth, 2010), it is difficult to see how a teacher can be expected to write reformulated versions of all texts produced by students in most language classes. Therefore, an example answer suitable for multiple pairs was utilised.

Before reading the example answer, participants first re-read their typed-up version of the second draft of their text. They were then given one copy of the example answer to read together. While participants made no edits to their second draft, they were encouraged to discuss the features of the example answer they noticed and to compare it with their second draft.
3.8 Data analysis

Data analysis in this study was concurrent. After each feedback session I watched the video-recording as soon as possible to note areas of interest and potential questions to ask participants during their retrospective interviews. Furthermore, while writing up the findings, I continually went back to the data, checking my analysis and going back to participants to validate my reading of the data.

All collaborative and individual output was typed up immediately after completion, with the original texts being scanned so as to keep a copy of the original. The retrospective interviews were held as soon as possible after the feedback sessions. This resulted in feedback sessions 1, 2 and the first retrospective interview being transcribed as a set, followed by feedback sessions 3, 4 and the second retrospective interview being transcribed. When transcribing the video recordings, I added in as much contextual information as possible to allow the data to encapsulate non-verbal behaviour. With a total of approximately 150 minutes of video footage and over seven hours of retrospective interviews to transcribe, this process was very time-consuming. However, in striving for verbatim transcripts, I became very familiar with the data and identified areas to follow up on with member-checking in person throughout the study, rather than merely having participants read over transcriptions at the end of the study.

After transcriptions were complete, they were uploaded into NVivo. NVivo acted as a digital storage for all transcriptions, coding of data and researcher notes. By keeping researcher notes in the Memos function of NVivo, researcher thoughts, arising issues and a note of what had or had not been coded was recorded and acted as a type of audit trail.

The research questions are by their nature exploratory and as such require an inductive approach. The approach I originally had in mind was similar to the thematic approach posited by Gibson and Brown (2009). They propose a thematic approach involves “analysing data according to commonalities, relationships and differences across a data set” (p. 138). In such an approach, the themes are not pre-determined, but rather emerge as the data is analysed. It is here that the use of AT may appear to contradict this. AT imposes SCT onto the data and deviates
from such an inductive method due to the pre-existing categories it brings with it. Goetz and LeCompte (1981) provide a framework that views inductive and deductive as a continuum, and argue that the place of theory within the project will govern where it sits along the continuum—with deductive research tending to bring a theory with it and inductive allowing the data to generate a theory. Miles and Huberman (1994, p. 61) provide a way for research to be in-between by using both “priori and inductive approaches”. They state that we can use a “general accounting scheme for codes that is not content specific, but points to the general domains in which codes can be developed inductively” (p. 61).

By applying this approach, themes emerged from the data naturally and could be coded as sub-categories that fell below the pre-existing categories of AT. For example, the data showed that Natsuko and Yumi often utilised their Japanese language resources to mediate the processing of the WCF. I coded this as “L1 usage” in NVivo. The use of this language resource as a symbolic tool was then later categorised as a tool (the pre-existing AT category). As per the theoretical framework of AT, emerging themes were viewed as simultaneously interacting with other categories, or aspects, of the activity system that constitute the particular learning environment of this study.

### 3.9 Trustworthiness

In light of qualitative data being underpinned by different ontological and epistemological beliefs when compared to quantitative data (Merriam & Tisdell, 2015), I have chosen to use Lincoln and Guba’s (1985, p. 290) term “trustworthiness” to encapsulate the notion of ensuring the rigour of this study. Many qualitative researchers argue that “trustworthiness” requires credibility, consistency, transferability, and that bias and reflexivity should be established (for example Maxwell, 2013, Merriam & Tisdell, 2015). In this section I discuss how each of these constructs were established in this study. Section 3.5 has already discussed issues of transferability and how they are applied in this thesis.
3.9.1 Credibility

Due to qualitative researchers taking the ontological position that there are multiple realities, traditional notions of validity become problematic. If there is not one objective truth, how can we check whether or not our findings match some so-called objective reality? In short, we cannot, for as Lincoln and Guba (1985) state, “‘reality’ is now a multiple set of mental constructions” (p. 295). It is here that Lincoln and Guba’s (1985, p. 296) concept of credibility comes into play—with credibility referring to the researcher showing that the multiple realities they have represented are credible to the participants who constructed them. Therefore, while the qualitative researcher cannot capture a single objective truth, they can show confidence in their findings through credibility (Merriam & Tisdell, 2015).

Triangulation is a powerful means to ensure credibility (Merriam & Tisdell, 2015). For qualitative researchers, Stake (2010, p. 123) describes triangulation as going beyond looking and listening from one angle, but involving “being skeptical that they [the participants] were seen and heard right and checking further”. In this study, I triangulated data in two ways. The first was through the use of multiple sources of data. These multiple sources resembled what Stake (2010) refers to as “mixed methods” (p. 125), with multiple sources of data being used interactively throughout the study to investigate a single issue. I collected data from multiple sources and allowed the experiences participants described and my interpretation of them to interact with other data sources throughout the study. Data was also triangulated by performing member checking on multiple occasions. With reality residing inside the mind of participants (Lincoln & Guba, 1985), it is here that qualitative data becomes most credible because the representation of participant experiences are checked against their constructed reality through member checking. Therefore, with triangulation being achieved through the use of multiple data sources and member checking, the findings of this study are argued to be credible.

3.9.2 Consistency

The traditional notion of reliability is based on replication, in that if a study is replicated and similar findings are obtained, then the study is considered...
reliable (Lincoln & Guba, 1985). However, as Merriam and Tisdell (2015) highlight, this is problematic in the social sciences because people are not static and such a test for reliability is based on the idea that there is a single unchanging reality. Therefore, in qualitative research the question becomes whether the results make sense in light of the data collected, rather than whether the results would be repeated in a replicate study. In light of these considerations Lincoln and Guba developed the term consistency, or dependability, when describing the construct of reliability in qualitative research.

In case studies, Yin (2009) explains that we can meet this criterion by asking ourselves if a different investigator would reach the same conclusions with the data collected as the original researcher. Yin explains that one way to show reliability in this manner is to keep the raw data and the report separate. I facilitated this process in two ways. Firstly, as much as possible, raw data has been made available in subsequent chapters and in the appendices of this thesis. Secondly, as often as possible, participant voices were kept intact by using direct quotes from data sources rather than paraphrasing them. Additionally, situational information from video recordings was included in (parentheses) to assist the reader take in the whole context of any raw data.

In quantitative research, reliability also involves the notion of an instrument being consistent (Somekh & Lewin, 2011, p. 328). One aspect of consistency in qualitative research then becomes the degree to which the tools used to investigate the issue actually accessed the unit of study—an issue that is exacerbated when the unit of study is not visible. In this case study, in addition to participants’ individual output, the video-recordings and retrospective interviews helped to increase consistency. As discussed in 3.6.3, the video recordings ensured that the symbolic outcome of feedback and paralinguistic behaviour was captured. The retrospective interviews, as discussed in 3.6.4, allowed for a participant’s perception of this outcome to be captured. Individual output was collected on multiple occasions and provided several instances of participants using or not using co-constructed knowledge when working individually. Therefore, the data collection instruments used are argued to have accessed participants’ experiences with WCF.
3.9.3 Bias and reflexivity

Researcher bias, or pre-conceived beliefs on language learning, has been largely covered in the description of language learning presented at the beginning of this chapter. The impact this had on the project was that I came into the study with a view that I would have been surprised if participants found no benefits from collaboratively processing WCF. This bias is evident in both the second and third research questions, with the second implicitly assuming there are, in theory, potential benefits in collaboratively processing WCF, and the third—based on studies such as Swain and Lapkin (2002)—assuming some knowledge would be co-constructed. However, the study did not hinge on such findings. In fact, contradictory findings would make for an interesting discussion through the lens of AT. This bias, and its ensuing ontological and epistemological positioning, is also evident in some data collection instruments, with the video-recording of interactions aiming to capture language learning on the interpersonal plane and retrospective interviews capturing the multiple realities of these interactions. As described in 3.4 and 3.5, the verbatim transcripts of the video-recorded interactions and interviews produced rich data. Rich data makes “it difficult for respondents to produce data that uniformly support a mistaken conclusion, just as they make it difficult for the observer to restrict his observations so that he only sees what supports his prejudices and expectations” (Becker, 1970, p. 52). The rich data collected in this study alleviated concerns of bias.

Maxwell (2013, p. 126) describes reflexivity, also known as reactivity, as the influence the researcher has on the study. Maxwell argues that while there are techniques that can reduce this concern, rather than trying to eliminate it, it is more important to understand what the influence is and how it impacts the study. The first influence I may have had on the study is the risk of participants describing events in a manner they believed would assist me. The rapport built up with participants as the study progressed, I argue, helped them to be honest and to freely share their opinions. However, conversely, did this rapport cause them to feel obliged to support me in my research? It is here that I needed to adopt Stake’s (2010) notion of being sceptical by always cross-checking participant’s retrospective interview data with other data sources and, as gently as possible, seek more specific information during interviews. Furthermore, as discussed
above, the rich data collected reduces the risk of participant “duplicity” (Becker, 1970, p. 52).

The second influence to consider is whether the presence of the researcher and data collection procedures influenced participants to act in an unnatural manner. Maxwell (2013, p. 126) argues that repeated observations and interviews, combined with the sustained presence of the researcher, reduce the chances of inaccurate associations being made. Throughout the course of this study I was always present. Additionally, data was collected on several occasions, reducing the chance of atypical events being captured (Becker, 1970, p. 54). As such, with the sustained video- and audio-recording of the researcher and participants on multiple occasions, any issues of reactivity have been significantly reduced.

3.10 Ethical concerns

After gaining ethical approval, ethical concerns require consideration throughout the whole study (Maxwell, 2013, p. 7). In addition to using pseudonyms and withholding any potentially identifiable data, it also meant ensuring participants were at ease during the whole study and that they benefited from the study. Examples of how this was achieved include: negotiating the content of classes with the participants; not pursuing any line of questioning that a participant appeared to prefer to avoid; and ensuring I had understood their perspectives through member checking. A copy of ethics approval is provided in Appendix 5.

3.11 Conclusion

This chapter presented the methodology, data collection and analytical approach used to investigate my research questions. By outlining my language learning beliefs in the conceptual framework, I provided further information on exactly what it is that this study will be investigating and highlighted how these beliefs impacted, in an interdependent manner, other aspects of the study such as the data collection instruments and how participant output would be analysed. In addition to meeting the practical needs of this study, I described how AT was also compatible with these language learning beliefs and philosophical assumptions.
The chapter then discussed how the nature of the study itself required to be investigated as a case study, using qualitative data and needing to be understood from the participants’ perspective. This was not a step-by-step linear process. Rather, aspects such as research aims, practical considerations, data sources, language learning beliefs and philosophical assumptions all interacted with each other to cause the research to be carried out as it was. This was followed by a description of the timeline by which data was collected and an explanation of the types of WCF participants processed.

Finally, the chapter outlined the data analysis process, including how an AT framework could be applied while still allowing themes to emerge from the data. I then outlined how trustworthiness was built into my data and the ethical concerns that required consideration throughout the whole study. Informed by the frameworks and methodology described in this chapter, the following chapter will present the experiences of Carol and Kazue when collaboratively processing WCF.
Chapter 4: Carol and Kazue’s experiences

4.1 Introduction

This chapter presents findings from the analysis of Carol and Kazue’s experiences of collaboratively processing written correct feedback (WCF). Due to activity theory (AT) not being a framework that enables the unit of analysis to be disaggregated (Leont’ev, 1978), each component of the activity cannot be isolated and discussed separately. Accordingly, components of the activity system, such as tools, division of labour and so forth, are not presented as separate categories.

I begin the chapter by describing the transcription system I used when presenting excerpts of raw data, and how some of it is accessible in the appendix when excerpts have not been used. This is followed by a description of the term Co-constructed Knowledge Point (CKP)—a term introduced in Chapter 1, but that warrants further explanation before presenting and discussing results. I then introduce each participant by outlining their background and language learning goals. This is followed by describing their experiences of each feedback session through the lens of AT.

The first two feedback sessions explored collaborative writing task 1, which required Carol and Kazue to describe a graph—an activity based on the first writing section of the International English Language Testing System (IELTS). Feedback sessions 3 and 4 explored the second collaborative writing task, which was a doctor’s letter of referral, based on the writing section of the Occupational English Test (OET) Medical exam. The WCF provided in feedback sessions 1 and 3 was indirect and the feedback in sessions 2 and 4 was direct WCF in the form of an example answer. The chapter concludes with a brief overview of Carol and Kazue’s experiences of and engagement with the collaborative processing of WCF.

4.2 Transcription key

When presenting the findings, excerpts from the feedback sessions are used throughout the chapter. The transcription key I utilised was based on
Guerrero and Commander (2013). This key allows for explanations by the researcher to be included, which is important when describing paralinguistic behaviour from the video recordings. The system was also effective for identifying utterances produced in a language other than English and providing translations. In addition to Guerrero and Commander’s system, there was a need to add a symbol for inaudible speech. In order to facilitate more efficient reading, I also added a symbol to indicate when sections of the transcript were omitted due to being irrelevant. The key can be summarised as follows:

(parentheses) explanation by researcher

[square brackets] English translation

*italics* words produced in Japanese

|vertical bars| simultaneous speech

/slashes/ phonemic transcription when incorrect pronunciation occurred

XXXXXX inaudible speech

1,2,3, … numerals are used to indicate turn numbers. Turn numbers reset at the beginning of a new feedback session.

… indicates some text or turn(s) has not been included due to not being relevant to the immediate issue being discussed or to increase readability by removing fillers

, punctuation has intentionally been excluded from transcriptions, however a comma is used to separate repeated words and phrases for ease of reading

? question marks have been added to utterances that functioned as a question, i.e. rising intonation or question words being used
Throughout this chapter, verbatim excerpts from the video-recorded feedback sessions are frequently used to present findings and enable raw data to be available for the reader. Whenever an interaction is referred to without being presented as an excerpt, a transcription of the interaction may be found in Appendix 6. All references to Appendix 6 also include a hyperlink within this document. When presenting excerpts, I use the historical present tense. This decision served two purposes. Firstly, as the researcher, it created a sense of immediacy, or closeness with the data. This closeness assisted the activity to be viewed from the perspective of participants rather than the researcher observing the activity from above. Such a viewpoint is considered a requirement of AT (Engeström & Miettinen, 1999, p. 10). Additionally, the use of the historical present tense aims to assist the reader to relive the experiences of Carol and Kazue.

In addition to the excerpts from the video-recorded interactions, I also present excerpts from Carol and Kazue’s collaborative writing tasks. These excerpts are presented verbatim, and as such spelling and grammatical errors have not been corrected when presenting this data.

4.3 Co-constructed knowledge points

As discussed in Chapter 1, I have coined the term Co-constructed Knowledge Point (CKP) to refer to instances of learning that participants identified during their retrospective interviews. In section 1.6, I explained that the term was needed because: other terms such as linguistic item or instance of learning became problematic; a term that could be used to refer to both the creation of new knowledge and priming of existing knowledge was required; and one that captured the interactional aspects of an individual creating knowledge while interacting with another individual, the WCF or other inanimate objects was needed. In order to facilitate a concise and coherent understanding of what each participant identified as learning, categories of CKPs have been used. Before presenting these categories, a brief note on the use of the term lexis is warranted. Based on Scrivener (2011, p. 186), I use the term to include single-word
vocabulary items, collocations, and combinations of multiple words which are commonly used together. The categories are as follows:

- Development of lexis: CKPs concerning development or consolidation of metalinguistic knowledge, usage or meaning of known, but yet-to-be-mastered lexis.
- New lexis: CKPs involving the learning of the meaning and any metalinguistic knowledge of previously unknown lexis.
- Task strategies: CKPs concerning strategies on how to complete the task.
- Linguistic knowledge: CKPs concerning grammatical knowledge that goes beyond a specific lexeme.
- Communicative solutions: CKPs involving a participant finding a clearer manner to express themselves.
- Letter writing conventions: CKPs specific to the formatting of text in the letter writing genre.

In line with the conceptual framework of this study, the distinction between whether a CKP was primed or new knowledge was made by participants and not the researcher.

### 4.4 Meet Carol and Kazue

#### 4.4.1 Carol

Carol is a Vietnamese female in her thirties, married and mother of one. In Vietnam, Carol practiced medicine as a gastroenterologist. All of her education was completed in Vietnam, with Vietnamese being the language of instruction, except for some English classes. Since migrating to Australia approximately 18 months before this study commenced, Carol had pursued steps to allow her to practice medicine in Australia. The first step was passing the Australian Medical Council (AMC) Multiple Choice Question (MCQ) examination. The next step for Carol is to take the OET Medical Exam, which was her main motivation for joining this study. During this study, Carol was volunteering at an inner-suburban medical clinic in Melbourne to satisfy other AMC requirements.
Carol first started learning English in extra-curricular classes when she was approximately 12 years old. While the classes continued until she completed high school, attendance was sporadic due to limited financial resources. Throughout secondary school, she also received English classes that were part of the national curriculum. She described both her extra-curricular and secondary school classes as being very similar in their pedagogical approach, which she describes as “not active, you know passive way like the teacher give you something, some paper and you …fill in the sentence” (Carol, Pre-interview).

For Carol, a teacher-centred pedagogical approach that does not facilitate opportunities to produce meaningful output was described as passive. Carol described such an approach as unsatisfactory, stating “…when I grew up I understand that it’s not a good way for studying English” (Carol, Pre-interview). While at university, Carol described her English classes in a positive light due to opportunities to produce meaningful output. However, little importance was placed on her language studies because she felt there would be no need for English after she graduated. This led Carol to feeling like an incompetent English language user when she first arrived in Australia. Upon reflection, she commented “when I first came here (Australia), I feel like I cannot speak English at all” (Carol, Pre-interview).

Carol’s English language learning experiences included very little instruction in writing. When reflecting on her experiences with WCF, she stated that she would submit grammatical exercises she had completed in class and that the teacher would return the classwork with direct feedback on any errors. Prior to participating in this study, Carol received a C for a mock OET Medical exam, which equates to an IELTS band of 5.5 to 6.0 (Occupational English Test, n.d.). At the commencement of this study, Carol held some strong beliefs regarding pair work. Her comments included, “…I think, ah, working with someone who, ah, who is up level, must help you” (Carol, Pre-interview).

Carol has several activity systems interacting with her English language learning. Her desire for her to feel a part of Australian society appeared to be her overall goal, with the ability to practice medicine closely intertwined with this.
Within this activity system, the English language and practicing medicine in Australia were actually mediational means by which to achieve this goal. This then set up an activity system that had practicing medicine in Australia as its object, which in turn created several other activity systems: passing the OET Medical exam, participating in this study, and volunteering at a medical clinic. These all interacted with her English learning, with Carol stating that the AMC MCQ examination study group she was a member of passed on advice concerning OET exam strategies. Her previous English language learning in Vietnam, currently an inactive system, have also shaped her beliefs concerning what effective pedagogy looks like. And finally, previous pair work experiences shaped her beliefs about what type of partner is required for pair work to be beneficial. Throughout the study Carol displayed a high level of commitment to achieving her goal to practice medicine in Australia.

4.4.2 Kazue

Kazue is a Japanese female in her forties, married and mother of two. In Japan, Kazue is a doctor in rural Japan. Kazue and her immediate family came to Melbourne for a period of six months. The decision was based on Kazue’s desire to pursue post-graduate studies in rural medicine in Australia. A requirement to undertake such studies is an overall IELTS score of 7.5, and accordingly the goal for her time in Melbourne was to attain this IELTS score. She arrived in Melbourne approximately two months prior to participating in this study. All of Kazue’s education was completed in Japan, with the language of instruction being Japanese.

Kazue started learning English at junior high school in Japan (Australian year 7 equivalent) and had received six years of English language education at the time of graduating from high school. Her English classes at school were her only source of English education during this time and she described them as “not so interesting… we mainly studied about grammar” (Kazue, Pre-interview). At university, there were English classes, however, Kazue stated that they were not frequent, with little importance placed on them.

When asked to compare her learning experiences in Japan with her current experiences in Melbourne, Kazue perceived a significant difference in the
pedagogical approaches employed. In Japan, classes were delivered in Japanese in a grammar-translation approach, with teachers providing direct feedback on all errors. In Australia, despite grammar still being of importance, Kazue found that teachers taught grammar through communicative type activities and feedback was not provided on all errors. Her reflections include:

… so it’s different from Japan…sometimes they tell me (about grammatical errors) but not often because they (ELICOS centre teachers) don’t care much about the grammar. The communication is more important.

Kazue (Pre-interview)

Kazue stated she was enjoying the classes at the ELICOS centre. Teachers provided her with indirect WCF on the structure and quality of content as well as grammatical issues. Kazue’s perceived usefulness of this varied, as she stated: “sometimes I understand why it’s wrong but ah, sometimes I can’t understand why so, if I have enough time I can ask teacher but sometimes I can’t ask” (Kazue, Pre-interview).

In the third week of this study, Kazue received an overall score of 6.0 for an IELTS exam. Kazue’s overarching goal was to become a more effective doctor in her workplace. She had identified studying rural medicine at post-graduate level in Australia as a means by which she can achieve this goal. In order to access this mediational means, an activity system with the object of attaining 7.5 in an IELTS exam was created, which in turn led to Kazue’s activity system of studying at an ELICOS centre in Melbourne to achieve her IELTS score. Kazue also stated that working in pairs for writing would be a new experience for her and felt she was coming into the study with no preconception regarding the potential benefits and limitations of pair work. Throughout the study Kazue displayed a high level of commitment to achieving her goal of attaining 7.5 IELTS score.

4.5 Feedback session 1: It’s not just the WCF

In the first feedback session, Carol and Kazue were presented with the task of editing their description of a graph through the utilisation of the indirect
feedback that I had provided for them (for a copy of task instructions, the first and second draft see Appendix 2). Therefore, the object of the activity in the first feedback session was to use the assistance provided in the form of indirect feedback to improve the quality of the co-constructed text. However, the object consists of three facets: the thing which is acted upon; an objectified motive, and a desired outcome (Foot, 2014). While the first two facets of object were shared by both Carol and Kazue, the third facet—the desired outcome—varied slightly, with Carol hoping to apply knowledge learnt in this activity in an OET test and Kazue hoping to apply it in an IELTS test.

The tools utilised by Carol and Kazue to edit their text in the first feedback session were the WCF I provided them with and their own linguistic resources. The indirect feedback became a catalyst that initiated languaging, which took the form of both collaborative dialogue and private speech. Due to Carol and Kazue only sharing the target language English as a common language, English was the only symbolic tool available for collaborative dialogue and there were no audible instances of Vietnamese or Japanese being used. This is not to say, however, that internal languaging was not occurring in their other linguistic resources, i.e. Vietnamese for Carol and Japanese for Kazue. Private speech may be either overt or covert, with covert private speech often referred to as sub-vocal private speech (Lantolf & Thorne, 2006; Swain et al., 2011). It is possible that these tools were being utilised in sub-vocal private speech and were thus not evident during participant interactions.

Wells (1999) points out that private speech and collaborative dialogue are not always able to be disaggregated. Wells argues that private speech, while not directed towards another individual, can still be utilised by an interlocutor and play a pertinent role in guiding the interaction and solutions thereby generated. This results in permeable boundaries being formed between private speech and collaborative dialogue (Swain et al., 2011). Accordingly, I have not thought of these forms of languaging as a dichotomy, but rather as a continuum. The following excerpt is a typical example of how all three tools, the indirect feedback, collaborative dialogue, and private speech were utilised to find a solution and generate a CKP. The example also highlights how private speech
deployed during group work often forms part of collaborative dialogue. The original sentence in draft 1 was:

**However, oil grew up more steep than Gas.**

(Carl & Kazue, Collaborative Writing Task 1, Draft 1)

This led Kazue and Carol into the following interaction:

Excerpt 4.1

197 Kazue: oil grew up more steep, more steep (looking away; low volume) 
198 Carol: I don’t know what, what wrong with this sentence (laughs) grew up 
199 Kazue: oil usage, maybe, oil usage (writes correction on draft 1—adding in usage), grew up more steeply, (low volume; no eye contact), more steeply (said with higher volume and appears to realise error) more steep (looks at Carol) 
200 Carol: yeah 
201 Kazue: more steeply 
202 Carol: more steep, more steeply 
203 Kazue: ah, adjective adverb 
204 Carol: I think it’s 
205 Kazue: steep is okay? More steeply. (no eye contact, looking away) maybe it must be adverb steeply yes than gas

(Carl & Kazue, Feedback session 1)

In the above example, the indirect feedback was a tool that helped orientate participants’ thinking towards which type of error to look for. This then became the catalyst for them to engage in collaborative dialogue to find the grammatical error. For Carol, the indirect feedback was too implicit to find the answer using her own linguistic resources, as she states in turn 198. However, for Kazue, the feedback initiated her careful re-reading of the sentence, during which she first adds in *usage* to clarify the noun phrase *oil*. To find the correct form of *steep*, Kazue uses private speech in turns 197 and 199 as she notices the error and then announces the correct form later in turn 199 by using a louder voice and
directing her speech toward Carol. After collaborative dialogue from the final utterances of turn 199 to the beginning of turn 205, Kazue returns to private speech to double check her proposed solution for the latter part of turn 205. In turns 197, 199 and the later part of 205, it is unclear to whom her speech is directed. Swain et al. (2011) argue that private speech is available for others to hear, but its purpose is to mediate one’s own behaviour. While Kazue’s utterances form a significant part of the collaborative dialogue, she appears to be using this speech to mediate her own behaviour. Furthermore, her paralinguistic behaviour—low volume, incomplete utterances and no attempted eye contact—fits the characteristics of private speech (Ohta, 2001; Saville-Troike, 1988). Therefore, I consider these utterances to be private speech. However, at the same time, the whole dialogue transcends individual performance and builds knowledge, and thus fits Swain’s (2000) definition of collaborative dialogue. The interaction between turns 197 to 205 corroborates Wells’ (1999) contention that private speech and collaborative dialogue are not always easily delineated—with parts of Kazue’s private speech forming an important aspect of the interaction, moving it toward a solution, and Kazue sometimes using both collaborative dialogue and private speech within the same turn. While private speech was at times difficult to clearly delineate from collaborative dialogue, there were 15 instances of participants producing utterances that clearly met the criteria for private speech.

Excerpt 1 also displays one manner by which participants experienced learning generated via the collaborative processing of WCF, with both participants reporting CKPs being derived from this interaction in their retrospective interviews. It was not just the WCF acting as a type of scaffolding, but a combination of the WCF and subsequent languaging that enabled solutions to be reached and generate CKPs. For Kazue, the WCF and private speech was sufficient to prime her knowledge of the lexis steep and expand the original noun phrase oil. However, for Carol, additional assistance was provided, in a multi-directional and real time manner, as she allowed Kazue’s resources to supplement her own to find an appropriate solution.

Throughout the first feedback session, both Carol and Kazue showed signs of engagement with the activity. This was evident with the length of many
of their discussions of a response to the WCF. For example, one instance of WCF led to a discussion that consisted of 103 turns and lasted approximately 14 minutes. The length and depth of this interaction evidences their high level of engagement with the task.

Carol and Kazue afforded each other with a high-level of equality throughout the first feedback session, with equality referring to the authority over the task’s direction or flow (Damon & Phelps, 1989). This equality was evident in both participants having a similar number of turns during the course of the feedback processing session (Carol 149, Kazue 151), a similar number of instances of initiating discussion of an instance of WCF (Carol 18, Kazue 19), and both participants offering and accepting opportunities to write out new sentences. There was, however, a difference in mutuality. Damon and Phelps define mutuality as the level of interest expressed towards each other’s suggestions or contributions to the activity. There were several occasions in which Carol afforded Kazue with little mutuality. This is reflected in the ten instances of Carol either ignoring or rejecting Kazue’s suggestions—which were actually correct on all occasions. A prime example of Carol rejecting correct suggestions made by Kazue is shown below in excerpt 4.2, while they are discussing how to link the decline of coal usage to the advent of oil and gas as energy sources.

Excerpt 4.2

172 Kazue: a, a, a, |accompanied with the new energy| source, accompanied with the appearance of new energy source (Carol is looking away)

173 Carol: |then dropped| (writing down something; doesn’t acknowledge Kazue’s suggestion; no eye contact) it’s like not really make sense (both laugh) with that sentence right? Right, ah, coal, um, coal usage increased significantly up to seven (seventy)

174 Kazue: because of the, because of the
Carol: ah, yeah, a connection, I want to make a connection between them so (previous suggestion by Kazue not acknowledged, no eye contact)

Kazue: because of the increasing usage of new energy source

Carol: hmm (no eye contact; seems to be thinking; rejects by not acknowledging suggestion)

Kazue: or

Carol: and then dropped, |dropped|

Kazue: |because of| the advent of new energy source

Carol: and then dropped out, dropped, dropped (no acknowledgement of previous suggestion; no eye contact)

(Carol & Kazue, Feedback Session 1)

Of the four occasions when Carol rejects Kazue’s suggestions in the above excerpt, rejection is displayed in speech on one occasion in turn 173, with the other three being rejected by not acknowledging Kazue’s suggestions in turns 175, 177 and 181. Rejections of Kazue’s suggestions results in a change to the direction of the collaborative dialogue, which in turn leads to shaping how the text was acted upon. This then influences the symbolic outcome, which in this case results in missed opportunities for learning. For example, as I will point out when discussing the second feedback session, advent was an unknown word for Carol and the opportunity to discuss its meaning and usage was missed. For further examples of similar missed opportunities, please see interaction A1.2 in Appendix 6. Kazue reinforced her lower level of mutuality by never reattempting to present her suggestion as a viable option except on one occasion: in interaction A2.2 she re-presented her argument that more detail was required in the second paragraph (see Appendix 6).

The re-presentation that more information is required by Kazue appears to have been influenced by the rules of the task. Several turns after her idea being initially rejected, Kazue points out that the task requires responses to be at least 150 words and if they were to fulfil this requirement, extra information was needed. The extra sensitivity towards this requirement may be due to the different desired outcomes at this stage of the study—with only Kazue intending to take an
IELTS exam. Furthermore, in Kazue’s other activity systems, her teachers and classmates in the IELTS class she attends, would have likely influenced her desire to meet this requirement too. For Carol, the rules of the task were not directly relevant to her language learning goals and as such less value was placed on them. During the first feedback session, Carol and Kazue did not utilise an inanimate expert, for example a dictionary or online resources, to assist them when processing the feedback. Participants were allowed to do this, however at this stage of the study they had created an activity system that either did not allow or value such tools. Both participants accepted all suggestions for improving their text and did not question the legitimacy of them—implying I, the teacher/researcher, was perceived as the expert. The manner by which this study was set up resulted in a division of labour that required the teacher to become responsible for providing feedback on sections of the draft that required editing due to either grammatical errors or incorrect/insufficient description of the graph’s features.

The material tools used to complete the activity were a pen and paper—one sheet of paper that contained a typed-up version of their first draft with feedback and a sheet of paper on which to write out their second draft. Very early in the feedback session, Carol told Kazue she believed they were not to make edits on draft 1. Accordingly, there were only two suggested edits noted on the draft. Instead, they discussed their ideas and then wrote out the suggested edits in full sentences on their own scrap paper. This resulted in all but one instance of feedback being resolved before writing out the second draft. Furthermore, it resulted in no further discussion concerning responses to the WCF when writing out the second draft.

The first feedback session shows that it was not just the WCF that generated learning, but more so the languaging it initiated—evidenced by one of the CKPs being identified as a result of the WCF only, and the seven remaining CKPs involving collaborative dialogue. Additionally, when opportunities for learning were missed, it was not so much a shortcoming of the WCF, but a lack of collaborative dialogue. Carol identified four CKPs from a total of 14 interactions in the feedback session. Carol considered one of these to be priming of pre-existing knowledge and three as the construction of new knowledge. Kazue also
identified four CKPs, with her considering two as primed knowledge and two as new knowledge. The CKPs Carol and Kazue identified are summarised in Table 4.1.

<table>
<thead>
<tr>
<th></th>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carol</td>
<td>Development of lexis: <em>halve</em> includes ‘go down’ in its meaning</td>
<td>Development of lexis: adverbial form of <em>steep</em>; usage of <em>that</em> as a pronoun; New lexis: <em>obsolete</em></td>
</tr>
<tr>
<td>Kazue</td>
<td>Development of lexis: <em>halve</em> includes ‘go down’ in its meaning; adverbial form of <em>steep</em></td>
<td>Development of lexis: preposition <em>in</em> with <em>trend</em>; Communicative solutions: <em>account for</em></td>
</tr>
</tbody>
</table>

### 4.6 Feedback session 2: A new object changes (almost) everything

Feedback session 2 consisted of participants being presented with direct WCF for the second draft of their graph description. The direct WCF took the form of an example answer (see Appendix 2 for a copy of the example answer). This changes the objectified motive, and as I will go on to explain, it changes several aspects of the activity. In this feedback session the outcome becomes symbolic only; there is a reduction in missed opportunities, changes in the tools used, and the division of labour further evolves. However, I say almost everything, because, in a similar manner to feedback session 1, the main manner by which learning occurred was again through the collaborative dialogue and private speech the feedback generated, rather than just the feedback itself.

The change in objectified motive meant that participants were not required to make any edits to their text. Rather, they read through the example answer, compared it with their second draft and discussed anything they noticed. This first results in the activity having a symbolic outcome only—hopefully an increase in participants’ knowledge of English. The thing to be acted upon then becomes
each participant’s knowledge of the English language, with the text now acting as an artefact which mediates their learning rather than the artefact being acted upon. In conjunction with no material outcome, participants were not required to provide suggestions to improve their text, thus significantly reducing opportunities for a suggestion to be rejected. This results in mutuality appearing to be significantly higher when compared to feedback session 1. However, it is important to note that this is not necessarily evidence that actual mutuality had changed. Rather, the objectified motive of the activity causes levels of mutuality to be less visible. There were still two instances of Carol not engaging with Kazue’s ideas, which led to missed opportunities for learning. For example, in interaction B9.2 (see Appendix 6), Kazue attempts to provide Carol with synonyms of level off that Carol did not acknowledge, indicating no real evidence of a shift in mutuality occurring. Despite this, there was a significant reduction in the number of missed opportunities, falling from ten in feedback session 1 to three in feedback session 2.

There was also a change in the tools being utilised by Carol to participate in the activity. Languaging, in the form of collaborative dialogue and private speech, continued to be the primary tool utilised to process the WCF, however she also started to incorporate an inanimate expert in the form of an online English/Vietnamese dictionary to check the meaning of lexis on two occasions. There were three instances of either Carol or Kazue encountering lexis whose meaning they felt unsure about, with different strategies to find a solution employed on each occasion. On the first occasion, Carol encountered the lexis advent, for which she drew on the linguistic resources of her partner in the form of collaborative dialogue to find a solution. The interaction was as follows:

**Excerpt 4.3**

23 Carol: what does it mean, advent /ævent/
24 Kazue: advent is (starts gesturing)

...  
27 Kazue: ah, (starts gesturing again) it appeared, means
28 Carol: ah

---

2 Member checking confirmed that this was an English to Vietnamese dictionary.
Kazue: advent is something like that

Carol: yeah, appear

Kazue: appeared

(Carl & Kazue, Feedback Session 2)

The second instance of participants encountering unknown lexis occurred when both participants were unsure of the lexical item negligible. On this occasion collaborative dialogue was utilised, followed by the use of an inanimate expert. During this interaction, collaborative dialogue was enough for Carol and Kazue to discover the meaning of the word; however, Carol utilised an online dictionary to dispel any doubts. The interaction unfolded as follows:

Excerpt 4.4

Carol: negligible? n, ne (trying to pronounce word)

Kazue: negligible

Carol: negligible, that means stop using or that means obsolete, it’s an adjective, adjective

Kazue: does it mean very small?

Carol: very small? (takes out smartphone)

Kazue: maybe very small

Carol: very small let me check it in dictionary

Kazue: sorry XXXXX negligible XXXXX (appears to be reading example answer) negli- (Carol looking up word on smartphone, Kazue occasionally glances at Carol’s smartphone, this continues for 32 seconds)

Carol: negligible, negligible, negligible /nəlɪdʒəbl/ (after using smartphone) yeah negligible /nəlɪdʒəbl/

Kazue: that mean very small?

Carol: yep, | yep | negligible /nəlɪdʒəbl/

Kazue: | okay |

Carol: the quantity is very small (Kazue notes definition in notebook)

(Carl & Kazue, Feedback Session 2)

It should be noted that Kazue did not fully participate in the utilisation of an inanimate expert in this interaction. In her retrospective interview, Kazue
stated that she felt she was able to guess the meaning of the word by drawing on her and Carol’s linguistic resources. Additionally, Carol’s incorrect pronunciation represents a missed opportunity for learning because full exploitation of the online resources would have facilitated an opportunity to listen to the correct pronunciation. Carol’s use of an online dictionary, however, appears to have been influenced by the rules of the activity when I stated that dictionary use was permitted before the feedback session began, and once again reaffirmed its usage was permitted during the session.

Turn 45 of the above excerpt reveals a different role of private speech in feedback session 2. After discovering the meaning of negligible, Carol spends a few moments whispering the word to herself repeatedly. During member-checking Carol revealed that the function of this private speech was to act as a mnemonic device—one she believes assists her to remember new vocabulary. The intentional force behind Carol’s behaviour implies that this behaviour is not mindless copying, but imitation, which is a key mechanism in the process of internalisation (Lantolf & Thorne, 2006; Swain et al., 2011). Analogous to feedback session 1, private speech was often difficult to clearly delineate from collaborative dialogue; however, in total there were 13 instances of unambiguous overt private speech through the feedback session. This is only two less than the first session, despite the second being approximately half the length of the first.

The third instance of a participant encountering unknown lexis occurred when Carol attempted to understand the phrase level off, when she utilised private speech, collaborative dialogue and then an inanimate expert. She begins by using private speech in an attempt to grasp the meaning of level off in turns 144, 146, and 148, as indicated in the following excerpt:

Excerpt 4.5
144 Carol: level, level off
145 Kazue: level off, after about
146 Carol: hmm, level off, level off (low volume, no eye contact)
147 Kazue: after about, hmm, level off, after, hmm (low volume, no eye contact; looks deep in thought)
148 Carol: level off, this is like decrease a little bit oil, oil
After utilising private speech, Carol then engages in collaborative dialogue with Kazue to learn more about the phrase, examples of which are included in turns 155 to 159. Finally, she feels a satisfactory understanding has been reached after using an online dictionary, as evidenced in turn 177.

Several interactions during the feedback session corroborated Swain et al.’s (2011) argument that our interactions with an artefact are influenced by whom the interaction takes place with. Carol and Kazue influenced each other’s interaction with the example answer by providing guidance that enables the example answer to adapt to participant needs. This adaptation was made possible when one learner was able to explain aspects of the example answer to their partner when experiencing difficulty in understanding aspects of the text—for example excerpts 4.3, 4.4 and 4.5. The other manner by which the interaction was influenced by a peer was evident in participants noticing different aspects of the example answer and pointing them out to each other as useful. One example of this was Carol leading Kazue to notice the phrase *rose quickly*. To provide the context of how this occurred, Carol and Kazue first mentioned that they believed there were many features of the example answer they should take note of, evidenced in turns 114 to 116 of the following excerpt.
Excerpt 4.6

114  Carol:   I think many, many, ah, phrases
115  Kazue:   yes
116  Carol:   we can learn…

…

142  Carol:   yeah, a phrase, with verb ing starting at a low level the
percentage of oil |rose quickly| over
143  Kazue:   |rose quickly over| the next XXXXX before yes it’s
very useful

(Carol & Kazue, Feedback Session 2)

After turn 116, Carol and Kazue go on to point out phrases they felt were beneficial, in particular those they perceived as communicative solutions to some of the covert problems they encountered when originally attempting the task. Then in turn 142, Carol seems to lead Kazue to the phrase rose quickly as she reads out a sentence from the example answer, indicating that she felt there were phrases contained within the sentence that they could learn from. This is a new type of interaction for Carol and Kazue during which there is little, or no, discussion of meaning. Rather, it resembles more a type of collaborative noticing, as they point out phrases or strategies they perceive as useful for navigating similar tasks in the future. Both Carol and Kazue identified four CKPs each that were generated in this manner. For another example of Carol and Kazue pointing out strategies to each other, see interaction B14 in Appendix 6.

Carol and Kazue continued to display a high level of engagement with the task—evidenced not only by my own observation but also the high number of CKPs they identified. Equality remained high with both participants taking a similar number of turns (Carol 94, Kazue 96), and both participants initiating discussion of an instance of feedback on a similar number of occasions each—Carol ten and Kazue 12. As feedback session 2 did not require participants to produce a text, it was not subject to the same rules that writing task 1 of an IELTS test imposed on feedback session 1; as such there was no evidence of these rules influencing participants in feedback session 2.
As I have highlighted, direct WCF in the form of an example answer changed several aspects of the activity system. While the new objectified outcome resulted in approximately half the time being required for participants to process the feedback, there were more instances of CKPs being identified than the indirect WCF. Additionally, the CKPs identified included a broader range of CKPs when compared with the first feedback session. These CKPs extended beyond solving problems visible in their original attempt at the task, but also included difficulties participants had in expressing themselves that were not visible in their output. Carol identified ten CKPs, with three of these being considered as priming pre-existing knowledge and seven as the creation of new knowledge. Kazue identified nine CKPs, three of which were considered as priming and six as new knowledge. Once again, it was largely the interactions the feedback created, rather than the feedback itself, that facilitated CKPs to be constructed, with 17 of the total 19 CKPs being evidenced in collaborative dialogue as participants discussed the feedback. Kazue identified two CKPs as being generated by noticing items in the example answer only, with the noticing not being evidenced in overt private speech or her discussions with Carol. Results of the CKPs identified by Carol and Kazue are summarised in Table 4.2.

<table>
<thead>
<tr>
<th></th>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carol</strong></td>
<td><em>Task strategies:</em> text structure</td>
<td><em>Development of lexis:</em> noun usage of <em>decline</em></td>
</tr>
<tr>
<td></td>
<td><em>Communicative solutions:</em> phrases <em>it can be seen; and reach its peak</em></td>
<td><em>New lexis:</em> <em>advent; negligible</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Task strategies:</em> use of simple past tense to complete the task</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Communicative solutions:</em> phrases <em>come into use; and level off</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Linguistic knowledge:</em> ability for gerunds to start a sentence</td>
</tr>
<tr>
<td><strong>Kazue</strong></td>
<td><em>Task strategies:</em> text structure</td>
<td><em>Development of lexis:</em> difference between <em>increase by and increase to</em></td>
</tr>
</tbody>
</table>

Table 4.2 CKPs identified by Carol and Kazue in feedback session 2
4.7 Feedback session 3: Changes to mutuality

In the third feedback session, participants were presented with the task of editing their co-constructed doctor’s referral letter. In the same manner as feedback session 1, this was to be achieved through the utilisation of indirect WCF. For a copy of the task instructions, and the first and second drafts, please see Appendix 2. Facets of the object of the activity changed when compared with feedback session 2—with the co-constructed text becoming the “thing-to-be-acted-upon” (Foot, 2014, p. 333) rather than purely an artefact which mediates learning. This also means that the activity has both a symbolic and material outcome—with the symbolic outcome being, hopefully, an increase in knowledge, and the material outcome being the second draft of the writing task. In this feedback session many of the trends that started to emerge in feedback session 2 continued to evolve, in particular the tools being used and a higher level of mutuality. These changes in turn influenced other aspects of the activity.

The tools utilised by Carol and Kazue continued to expand. Just as in feedback session 1, the primary tools used to edit their text continued to be the indirect WCF and their linguistic resources deployed in languaging. The use of an inanimate expert also continued, as Carol referred to her smart phone on four occasions. The change in objectified outcome between feedback session 2 and 3 also changed how the inanimate expert was utilised. In feedback session 2, an inanimate expert was used to confirm the meaning of yet-to-be-mastered lexis. In this feedback session, however, Carol used it to confirm: the format of address in a letter of referral; the format of the subject line in a letter of referral; the part of speech of the lexis worse; and the appropriate preposition for the verb accompany. In contrast to feedback session 2, Carol stated resources were in English rather than a translation of English to Vietnamese. There was also a shift in the tools Kazue was prepared to utilise as she participated in the action of

<table>
<thead>
<tr>
<th>Communicative solutions: phrases reach its peak; and level off</th>
<th>New lexis: negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicative solutions: phrases come into use; rose quickly; over the next XX years*; and at the same time</td>
<td></td>
</tr>
</tbody>
</table>

* indicates learning not evidenced in externalised speech
utilising online resources by using some of the information available on Carol’s phone on two occasions—a phenomenon that did not occur in feedback session 2. In the following excerpt, Kazue participates in the search for a solution on Carol’s smartphone but also assists Carol to notice aspects of the information available.

Excerpt 4.7
(Carol and Kazue searching on Carol’s smartphone)
26 Carol: yes, r, e, r, e, right? (laughs) I think so and no, no colon
(Carol and Kazue continuing searching for an example on Carol’s smartphone for 58 seconds)
27 Kazue: no colon? Okay. And there’s something? (points to screen of smartphone) ah, no
28 Carol: so, XXXXX r,e, Nicole Katie and date of birth yep something like this yeah
29 Kazue: Mr? Do I need to put in the? (said while reading and pointing at smartphone screen)
30 Carol: ah, (adds in Mrs on draft 1)
31 Kazue: yes, Mrs okay, okay

(Carol & Kazue, Feedback Session 3)

Excerpt 4.7 also highlights Carol and Kazue continuing to influence each other’s interactions with an artefact, with Kazue assisting Carol to notice an important part of their solution in turn 29. On all occasions online resources were utilised, Carol not only initiated the use of the tool but afforded herself the role of performing the action. This is despite the fact that Kazue brought a smartphone to all feedback sessions. Therefore, as the tools evolved, so did the division of labour, with Carol’s role of being responsible for accessing online resources being further reinforced from the previous feedback session. This resulted in a new dimension of equality developing, with Carol taking the initiative and directing the flow of any actions associated with the utilisation of an inanimate expert. Despite this, overall equality still remained high, with both participants taking a similar number of turns (Carol 175, Kazue 190), and initiating discussions on how to respond to an instance of WCF on a similar number of occasions—Carol 13 and Kazue 16. Of the four occasions an inanimate expert was utilised, three resulted in successful responses to the WCF.
The third feedback session saw a total of six instances of participants producing utterances that were clearly private speech—less than those in both feedback sessions 1 and 2. However, as I previously mentioned, this may also be a reflection of Carol and Kazue using sub-vocal private speech more regularly, rather than private speech not being deployed.

A shift in mutuality also occurred during the third feedback session, with Carol placing more value on Kazue’s suggestions. This was evidenced by the fact that there were only two missed opportunities for learning resulting from Carol not taking up suggestions made by Kazue. The first of these occurred in turns 36 to 39 of interaction C4 (see Appendix 6), during which Carol does not take up Kazue’s correct suggestion regarding the use of a preposition. However, this rejection cannot be completely attributed to low mutuality because Carol does, albeit very briefly, acknowledge the suggestion. It is just that she fails to realise it may have been correct, and encourages the use of an alternative, yet incorrect, solution. The second instance occurs in turns 273 to 277 of interaction C9 (see Appendix 6) and appears to be attributed to low mutuality, with Carol not placing value on Kazue’s suggestions and focussing on solving the task her way. This is a significant change given that there were ten instances of this in the first feedback session. Although there were only two instances of this in feedback session 2, the objectified motive of the activity influenced this and as such a real shift in mutuality could not be argued at that stage. The following excerpt evidences this shift, with Carol initially disagreeing with Kazue in turn 85, before taking on Kazue’s suggestion after she is allowed to further explain her thinking. This then allows their resources to be pooled and performance to outstrip individual competency.

Excerpt 4.8

84 Kazue:  hmm, okay, began to radiate to the back
85 Carol:  I think to the lower abdomen is better
86 Kazue:  but I, it means, maybe here (pointing to a position on her stomach) and we need to say about here (pointing to another location on her back) so
87 Carol:  so we |combine back and|
Kazue: |back and|
Carol: back the back her back and her
Kazue: back and
Carol: lower abdomen is that right?
Kazue: back and XXXXX
Carol: yeah, yeah I think so it’s ah meaningful

(Carl & Kazue, Feedback Session 3)

While missed opportunities for learning due to low mutuality decreased, there were other aspects of the activity system that did cause opportunities for learning to be missed. The first of these occurred when the inanimate expert could not assist Carol and Kazue find an appropriate solution when they were searching for the abbreviated form of regard. In her retrospective interview, Carol stated that the online resources did not provide an example of a colon following the abbreviated form of regard. While it is debatable as to whether it was insufficient mastery of the tool or the tool itself that caused this, it is clear that the tools led them to decide to not include a colon (see excerpt 4.7 for details). This also displays how the type of tools and participants’ mastery of them give both affordances and limitations to learning.

Another missed opportunity for learning arose due to the rules of the task as perceived by Carol. The WCF asked Carol and Kazue if there was a better way to express found no interest in food (see interaction C7 in Appendix 6). Kazue suggests the use of loss of appetite, however Carol rejects this suggestion. Carol later explained that this was not due to disparaging the suggestion, but rather she believed that because the case notes provided for the task used the expression loss of appetite she needed to paraphrase it in order to be awarded a high score on the OET Medical exam. Carol explicated this as follows:

…I think this was, this phrase (loss of appetite), is better but I didn’t want to use that because I feel like if I repeat the case note…the marking going down.

(Carl, Retrospective Interview 2)

In addition to showing how the rules influenced the activity, this example also highlights how the desired outcome interacted with other aspects of the
activity system. In feedback session 1, Kazue’s desired outcome caused the rules to have a greater influence on her than on Carol. In feedback session 3, Carol’s outcome is more closely related to the task and as such it is now Carol who is more influenced by the perceived exam rules than Kazue.

A final missed opportunity not able to be completely accounted for due to low mutuality occurred when Kazue failed to receive assistance from Carol when attempting to understand the lexis *blood in bowel motions*.

Key excerpts from the interaction are as follows:

Excerpt 4.9

257 Kazue: blood in bowel motion. Mm, I couldn’t understand this meaning, so I just put it as same (as the case notes) |so I check the| (case notes)

258 Carol: |furthermore she developed| shortness of breath and blood in b, b, b, b, (Kazue is searching for case notes and looking away)

259 Kazue: can I have the case notes? (Researcher points to where the case notes are; participants take them)

260 Carol: here, here

261 Kazue: blood in bowel motions (reading from notes) blood in bowel (3 second pause) bowel motions (laughs) blood in bowel motion blood in (no eye contact; hand covering mouth as speaking, low volume)

262 Carol: or we can change, ah like this (starts to write down suggestion; Kazue looks away and reads case notes)

263 Kazue: XXXXX blood in bowel motions (looking away) maybe blood in urine? (looks back in Carol’s direction)

264 Carol: There is some ah, there were some new (speaking as writing suggestion on scrap paper; 50 seconds of silence as she writes; then Carol crosses out her own suggestion)
Carol did not respond to Kazue’s prompts for assistance in turn 257, but maintained her focus on trying to find a solution to the problem. Furthermore, the utterances produced by Kazue in turns 261 and 263 did not become part of the collaborative dialogue to enable Carol to realise Kazue needed help. Eventually Kazue returns to Carol’s actions of finding a solution without confirming the meaning of the lexis in turn 264. Kazue’s final prompt for assistance in turn 287 was again not addressed by Carol. During member-checking, Carol stated that this was unintentional and actually a result of being too focussed on trying to find a response to the indirect WCF. However, it is arguable that this occurred due to Carol not valuing Kazue’s questions as much as her own. Therefore, a more likely explanation is a combination of low mutuality and Carol’s desire to not rely too much on her partner—a characteristic she explicated as a potential negative of pair work in her first retrospective interview. It should be noted that Kazue’s preference to not use an inanimate expert limited the learning potential, as utilisation of such resources would have most likely resolved the issue for her.

In a similar manner to feedback session 1, the material tools of a pen and paper were used to complete the activity. In feedback session 3, Carol and Kazue felt at liberty to make notes on draft 1 of the task. The general process by which they completed the activity was to first discuss proposed edits to the text based on the feedback they had been provided with. These solutions were, more often than not, noted on draft 1. After making these notes, Carol then wrote out the edited sentence in full on a scrap piece of paper to check the proposed solution. Once Carol and Kazue were satisfied with the proposed solution, Carol would then write out the new sentence(s) on the answer sheet for draft 2. Akin to feedback session 1, this resulted in no additional languaging occurring when writing out the final version of the text. It is also a shift in the division of labour, as Carol
performed all writing duties in this feedback session. This should not be viewed as a lack of investment in the activity by Kazue: her interactions with Carol displayed a high level of engagement.

The third feedback session saw aspects of the activity system continue to evolve. In particular the tools utilised continued to change; there was a shift in mutuality with Kazue’s suggestions being afforded more value, and the rules of the task influenced Carol for the first time, corroborating Cole’s (1996) contention that the aspects an activity system are not static. Carol and Kazue were involved in 18 interactions during the third feedback session. Once again, the majority of CKPs were identified as a result of interactions in which participants engaged in collaborative dialogue, with only three of a total of 19 CKPs being attributed to interacting with the feedback only. Carol identified 12 CKPs, nine of which she considered to be priming of existing knowledge and two as the construction of new knowledge. Kazue identified seven CKPs deriving from the third feedback session. She considered three of these to be priming of existing knowledge and three to be the creation of new knowledge. A summary of the CKPs identified by Carol and Kazue are presented in Table 4.3.

<table>
<thead>
<tr>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carol</strong></td>
<td><strong>Letter writing conventions:</strong> address format</td>
</tr>
<tr>
<td><strong>Development of lexis:</strong> preposition <em>to</em> with verb <em>radiate</em>; verb <em>radiate</em> taking subject <em>pain</em>; <em>worse</em> and <em>worsen</em> parts of speech; preposition <em>by</em> with verb <em>accompany</em>; preposition <em>to</em> with verb <em>confirm</em>; spelling of past tense of <em>complain</em>; spelling of present continuous form of <em>vomit</em>;</td>
<td></td>
</tr>
<tr>
<td><strong>Communicative solutions:</strong> use of lexis <em>complain</em> to present a symptom</td>
<td></td>
</tr>
</tbody>
</table>
4.8 Feedback session 4: Other activity systems

In feedback session 4, Carol and Kazue received direct WCF in the form of an example answer for their second draft of their letter of referral (see Appendix 2 for a copy of the example answer). The feedback session saw the example answer helping participants with problems visible in their output and covert problems they encountered when originally attempting the task. Furthermore, Carol’s broader community affected this activity in a more noticeable manner than in previous feedback sessions, with the influence of both her experience of studying for the OET Medical exam and working as a volunteer at a medical clinic interacting with processing the WCF.

The nature of the activity caused participants to change the example answer into an artefact that mediated their learning rather than the text being the object which is acted upon, as it was in feedback sessions 1 and 3. In a similar manner to feedback session 2, Carol and Kazue deployed the symbolic tools of languaging in the form of collaborative dialogue and private speech and continued to influence each other’s interaction with the example answer. Throughout the whole feedback session, an inanimate expert was not used. Both Kazue and Carol did not display any evidence of not understanding the meaning of any lexis in the example answer—which was the function of this tool in feedback session 2. It needs to be noted, however, that the phrase blood in bowel
*motions* was used in the example answer. In the previous feedback session Kazue did not understand this phrase and during her second interview she requested an explanation of the lexis, therefore it was still unknown during this feedback session. Despite this, she did not request help from Carol or initiate usage of an inanimate expert to find out what it meant. While Kazue did not explicate any reason for not requesting help in her interviews, it does indicate that she continued to only utilise an inanimate expert after Carol had initiated its use, even when she did not understand certain lexis.

The shift of higher mutuality which occurred in the third feedback session continued into the fourth. This was indicated as Carol drew on Kazue’s linguistic resources when discussing the valediction of the letter. Below is an excerpt displaying this:

Excerpt 4.10

91 Carol: … okay yours sincerely (reading example answer) I don’t know whether we put yours sincerely or best regards? what, what the difference between them? You know?

92 Kazue: I don’t know but um sometimes it says the difference doesn’t matter.

(Carol & Kazue, Feedback Session 4)

The above excerpt affirms that Carol is continuing to display a shift in the value she places on Kazue’s linguistic resources and is allowing herself to draw on another learner’s linguistic resources. This shift was also evident in her final interview, when she stated that her opinion of pair work changed over the course of the study. She began the study thinking that a partner needed to be of a higher level than herself for pair work to be successful, however at the end of the study she stated:

…Kazue had the different weakness and strength and I have the different weakness and strength as well so we can like…combine…combine or help each other.

(Carol, Member Checking)
Kazue displayed evidence of valuing Carol’s experiences of previous study for the OET Medical exam and her experiences at a medical clinic by placing her as the expert when adjudicating which aspects of the example answer were valuable. Some excerpts that display this include:

Excerpt 4.11
11 Kazue: so do we need comma?
12 Carol: yeah actually it’s com, comma, comma (in line subject line)
…
21 Kazue: so, it’s better to put this sentence thank you for seeing Mrs
22 Carol: yeah thank you for seeing it’s I think it depends um it depends on the circumstances
23 Kazue: mm
24 Carol: yeah because ah if you write you write ah referral letter you can write like this (pointing to the example answer) or like this (pointing to draft two of collaboratively written text)
25 Kazue: ah, both is okay
26 Carol: both is okay I think ah but actually I think this one (example answer) is better like um you like ah you give the information about the day of admission

(Carol & Kazue, Feedback Session 4)

After Kazue noticed features of the example answer, rather than simply accepting these as standard practice, she refers to Carol’s experience to evaluate the usefulness of the feedback. In addition to Carol’s position as expert influencing Kazue’s interaction with the example answer, Carol’s own previous experiences and other activity systems influenced her own interaction with the example answer. For example:

Excerpt 4.12
49 Carol: prior to being admitted to our hospital, prior
(makes a note on her own paper) to being
admitting, admitted to our hospital the patient was not able to eat properly and was feeling ah (Kazue writing down notes as Carol reads) and about the tense, yes I, I ah, I have, I think why is this the, um, past, this is past continuous tense

50 Kazue: was
51 Carol: was feeling a lot of pain in her stomach
52 Kazue: yes, past [continuous]
53 Carol: [past continuous] so you know when we use past continuous tense? You know that?
54 Kazue: past continuous XXXXX
55 Carol: I mean in the, in the referral letter because ah normally I use past tense or past ah present perfect or present tense, present simple tense so I, I, I rarely use this kind of
56 Kazue: ah okay
57 Carol: but was feeling a lot of pain in her stomach (reading example answer) that mean hmm
58 Kazue: so it’s good to describe the length of the
59 Carol: yeah, I under-(understand that but) I don’t understand when we use the past continuous tense in the, in referral letter (makes a note in her own notebook) okay

(Carol & Kazue, Feedback Session 4)

In this interaction, Carol expresses her surprise at the use of the past continuous tense, because according to her experience this is not normal practice when writing a letter of referral. Carol’s community beyond the classroom of this study included other doctors she worked with at a clinic in Melbourne and a now inactive study group for the OET Medical exam. It is here we can see the notion of other activity systems interacting with each other (Engeström, 2001; Swain et al., 2011). This was evidenced when, during member-checking, Carol stated that her experiences outside of this study qualified her as the expert when it came to
aspects of her job. She also stated that she would reject any feedback that contradicts her expertise. In this particular case these other activity systems were influencing her interaction with the example answer by causing her to negatively evaluate the use of the past continuous tense used in the example answer. Additionally, the preparedness to question the feedback and the value Kazue placed on Carol’s experience show that I, as the teacher of the class, was not perceived as the ultimate authority on letters of referral. The influence of this shift in the community is discussed in more depth in Chapter 6. In addition to Carol’s extended community influencing their interaction with the example answer, both Kazue and Carol continued to influence each other’s interaction by pointing out linguistic features they noticed to each other. Typical examples of these included:

Excerpt 4.13
13 Carol: causing her to lose approximately (low volume, reading example answer) oh this sentence really nice
(10 seconds of silence, both appear to be reading the example answer)
14 Carol: XXXXX this this was also very popular
15 Kazue: huh?
16 Carol: very common use, in letter (of referral)
17 Kazue: ah, deteriorate?
18 Carol: mmm (nodding) yeah, deteriorate, very common in, ah, medicine, I think

... 
46 Kazue: prior to being admitted
47 Carol: this, this, ah, structure (sentence)\(^3\) is really nice right
48 Kazue: mm
49 Carol: prior to being admitted to our hospital, prior…

(Carol & Kazue, Feedback Session 4)

In turn 13 of the preceding examples, Carol reads through the example answer in the first part of turn 13 in a low volume, as if she is reading the example answer to herself. This is then followed by an initiation of dialogue with

\(^3\) Carol confirmed that structure in this utterance is referring to the sentence
Kazue as she announces her fondness of the phrase *causing her to lose approximately* before directing Kazue’s attention to the verb *deteriorate* and indicating to her that this is a word worth remembering for letters of referral. In turn 46 Kazue performs a similar role as she reads through the example answer in what appears to be private speech, with the utterance then becoming part of a type of collaborative noticing in which participants take note of the expression.

In a more explicit manner than in feedback session 2, Carol and Kazue found solutions to covert problems encountered in the first attempt of the task. Carol found the answer to such an issue and Carol brought this to the attention of Kazue in the following dialogue:

Excerpt 4.14

61 Carol: I like this this structure (pointing a section of the example answer)

62 Kazue: causing her to (reading section of example answer)

63 Carol: causing her

64 Kazue: okay

65 Carol: yeah it’s better than us right she complained about some weight loss (reading draft two of collaborative writing task two) mm this is better ah because it makes more sense because that they the patient had also lost her appetite

66 Kazue: causing her to

67 Carol: yeah I, I want to write down the write a sentence like this but I don’t know I can’t find the structure

(Carol & Kazue, Feedback Session 4)

In the above example, direct WCF in the form of an example answer has assisted Carol and Kazue by providing an example of how to express the patient’s symptoms in a more logical and clearer manner than they were able to achieve. It should be noted that while such an explicit discussion did not occur in feedback session 2, both Carol and Kazue stated a similar benefit when reflecting on the second feedback session in their first retrospective interviews.
While the fourth feedback session saw many aspects of the system remain similar to previous sessions, it also showed further changes in other aspects. For example, the division of labour concerning the use of an inanimate expert remained the same and participants continued to influence each other’s interaction with the WCF. Additionally, equality continued to be high, with participants taking a similar number of turns (Carol 59, Kazue 53) and initiating discussions on an instance of feedback on a similar number of occasions (Carol on ten occasions, and Kazue eight). However, the influence of other activity systems and an example answer being used to find covert problems was evidenced more strongly than in previous feedback sessions. Carol identified seven CKPs being generated during the feedback session, with four of these being considered primed knowledge and three as new knowledge. Kazue identified seven CKPs, with two of these being perceived as priming and five as new knowledge. Similar to the second feedback session, the majority of CKPs were evidenced in either collaborative dialogue, with only one CKP not evident in collaborative dialogue or overt private speech. In feedback session 4, there were four instances of utterances being produced that clearly contained the characteristics of private speech. The continuing reduction in instances of overt private speech may be due to it more frequently occurring at a sub-vocal level as the study progressed. An alternative explanation is that the example answer in feedback session 4 did not contain any unknown lexis for Carol and only one for Kazue, indicating that when the example answer is less challenging, participants do not deploy as much private speech. The CKPs identified by Carol and Kazue are summarised in Table 4.4.

<table>
<thead>
<tr>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carol</strong></td>
<td><strong>Kazue</strong></td>
</tr>
<tr>
<td>Communicative solutions: use of <em>deteriorate</em> to describe the worsening condition of a patient; phrases <em>any queries, admitted to our hospital</em> and <em>yours sincerely</em></td>
<td>Communicative solutions: use of <em>deteriorate</em> to describe the</td>
</tr>
<tr>
<td>Letter writing conventions: use of date; comma after patient name in subject line</td>
<td>Letter writing conventions: use of date; comma after patient name</td>
</tr>
<tr>
<td>Task strategies: expressing gratitude in letter opening</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4 CKPs identified by Carol and Kazue in feedback session 4
Before going on to present the experiences of Natsuko and Yumi, I would like to provide a brief summary of the findings so far (a more detailed summary of both pairs will be provided at the end of Chapter 5). Throughout the four feedback sessions, it was not just the WCF that enabled CKPs to be generated. While there were instances of the WCF providing assistance to locate errors and prime knowledge which was in the process of maturation, it was more common for CKPs to be constructed in one of the following ways: one member of the pair acting as the expert and supporting their partner to develop a deeper understanding of the problem; or both members of the pair using their collective resources to find a solution—a process that sometimes involved the utilisation of an inanimate expert. This indicates that when the feedback was too implicit to be of benefit, learners were able to form a collective expert in a similar manner to Donato (1994) and Dobao (2012). Furthermore, it shifts how WCF may be conceptualised. Rather than considering it a tool which can improve a text or cause learning, it may be more beneficial to consider it a tool that can initiate languaging, which in turn provides the benefits for learners.

For Carol and Kazue, both the indirect WCF and direct WCF in the form of an example answer generated several CKPs, with participants identifying slightly more CKPs being generated from the direct WCF. In total, 25 CKPs were identified during the indirect feedback sessions and 33 in the direct WCF sessions. This points towards there being no fewer opportunities for CKPs when there is only a symbolic outcome of the activity. The CKPs identified by participants varied considerably in the type of knowledge being created, ranging
from knowledge of lexis to task strategies. This is in stark contrast to the
cognitively based studies I discussed in the literature review, which argue WCF is
most effective when addressing simple rule-based linguistic items only (Bitchener
et al., 2005; Ferris, 1999; Ferris & Roberts, 2001). Furthermore, the notion that
learning generated via WCF is inhibited when it is unfocussed (Ellis et al., 2008;
Sheen et al., 2009) was not corroborated. While a comparison of what may have
been able to be learnt if the WCF had been focussed is not possible, based on the
number of CKPs identified by Carol and Kazue, indications are that the
unfocussed nature of the WCF did not inhibit their learning.

The four feedback sessions also saw changes in several aspects of the
activity system. In the second and third feedback sessions, the use of an inanimate
expert was introduced into the activity with Carol taking responsibility for these
actions. Kazue was also afforded more mutuality as the study progressed,
showing that the division of labour was, to some degree, fluid, and that opinions
on pair work can change. The low mutuality Kazue was afforded in the first three
feedback sessions resulted in several missed opportunities for learning; however,
these missed opportunities reduced as the study progressed. A learner’s desired
outcome and its relationship to the writing task also had an influence on the
activity—in particular how much attention a learner paid to task requirements or
perceived test taking strategies. The final feedback session also showed clear
evidence of other activity systems, such as a learner’s professional workplace and
current or previous learning experiences, interacting with the current activity of
processing WCF.

Throughout the feedback sessions, private speech was often difficult to
cleanly delineate from collaborative dialogue, with it often serving an
interpersonal function as well as an intrapersonal one. The amount of overt
private speech decreased as the study progressed, suggesting that either private
speech was not utilised or that sub-vocal instances of it increased as the study
progressed. The results also indicate that more private speech was deployed when
the WCF was more challenging to process. The exploration of participant
experiences and engagement with the collaborative processing of WCF continues
in the following chapter, with the findings of the second pair—Natsuko and
Yumi—being presented and discussed.
Chapter 5: Natsuko and Yumi’s experiences

This chapter presents the experiences of collaboratively processing written correct feedback (WCF) for Natsuko and Yumi. In a similar manner to Chapter 4, this chapter also utilises excerpts from the video-recorded interactions regularly when presenting findings. The same transcription key is utilised in this chapter when presenting excerpts. The interactions in this chapter contain utterances produced in Japanese; these have been transcribed using the Hepburn transliteration system⁴. The Hepburn system was chosen because it is extensively used in scholarly works when transcribing Japanese utterances (for example Noboku, 1998; Hasegawa, 2015). Additionally, excerpts from their collaborative writing tasks are also presented. These are presented verbatim, and as such spelling and grammatical errors have not been corrected when presenting this data.

The chapter begins by first introducing Natsuko and Yumi and discussing their background and language learning goals. This is followed by presenting their experiences and engagement with the collaborative processing of WCF on co-constructed texts for each feedback session. The first two feedback sessions were in relation to the first collaborative writing task, which required Natsuko and Yumi to write an email to an online store regarding erroneous information on the store’s website. Feedback sessions 3 and 4 were concerned with a short argumentative essay. Both of these writing tasks were based on those included in the International English Language Testing Systems (IELTS) General Test. Each collaborative writing task first received indirect WCF for its first draft, followed by direct WCF in the form of an example answer for its second draft. Therefore, in feedback sessions 1 and 3, the WCF was indirect. In feedback sessions 2 and 4 the WCF was direct in the form of an example answer.

⁴Both myself and my executive supervisor have bilingual abilities in Japanese. I translated all utterances which utilised Japanese and my supervisor read over these translations.
5.1 Meet Natsuko and Yumi

5.1.1 Natsuko

Natsuko is a Japanese female in her mid-twenties. In Japan Natsuko was a nurse at a metropolitan hospital. Soon after arriving on a working holiday visa, she was granted permission to stay permanently in Australia. This change enabled Natsuko to shift from considering her time in Australia as a gap-year to study English to consider staying in Australia long term, with her commenting:

I want to stay here as long as possible so I can use English everywhere, every day in the future…maybe two years, maybe forever (laughs and said with excitement)

(Natsuko, Pre-interview)

All of Natsuko’s education was completed in Japan, with Japanese being the language of instruction, except for English being used during her English language classes. When this study commenced, Natsuko had been in Australia for a little over three months. She self-identified to participate in this study as a pre-made pair with Yumi, whom she met a month or so before expressing interest in this study. Soon after her arrival in Melbourne, Natsuko was successful in gaining part-time employment in the hospitality industry, which she described as being challenging at times when dealing with customers in English.

As part of the national curriculum in Japan, Natsuko studied English throughout junior and senior high school (equivalent to Years 7 through 12 in Australia). She described her classes at high school as often being “no speaking (in English)” (Natsuko, Pre-interview), and she did not study writing beyond constructing sentences to complete grammatical exercises. Despite English classes forming part of her university degree in Nursing, she was not able to elaborate on the classes, saying “I almost forgot (about them)” (Natsuko, Pre-interview). When considering her English studies in Melbourne, she stated that, overall, she was satisfied with them. Prior to this study, she first studied in the intermediate class of an English Language Intensive Course of Study (ELICOS) at an English language school. She was soon moved to the upper-intermediate class, which she described as being “little bit hard for me” (Natsuko, Pre-
interview). At the time this study commenced, she had just started a new English course on a part-time basis—Certificate III in English as an Additional Language (EAL). While she appeared satisfied with the classes themselves, she was disappointed her classmates “speak always, ah, mother tongue, not English” (Natsuko, Pre-interview). This desire for an environment in which she spoke exclusively English extended to her personal life, indicated when she commented:

…but I have a many Japanese friend so, ah, when I don’t have ah my class I, I speak, I don’t speak English, it’s bad point

(Natsuko, Pre-interview)

Despite not having undertaken any formal examinations, Natsuko’s level can be considered to be approximately IELTS band 4.0, due to several institutions offering the Certificate III in EAL course advertising an entry point of IELTS band 4.0 (for example Global Training Institute, n.d.). Natsuko described writing as a minor aspect of her current English classes, with her experiences with WCF thus far consisting of her teacher correcting errors directly in her writing. She indicated that feedback, in both written and oral form, could make her feel frustrated when large in quantity. She did not have any experience of writing in pairs and came into the study with a preference to work individually rather than in pairs when studying English.

In addition to the Certificate III in EAL, Natsuko also began a Certificate III in Hospitality in the final weeks of this study. Natsuko’s goals are yet to be crystallised, however the emerging theme is she would like to develop a career in the hospitality industry and live in Australia, with English becoming one of the means for this goal to come to fruition. Her current and previous language learning experiences, her workplace and her studies in hospitality are activity systems all interacting with her participation in this study. Her motivation for participating in this study was to help her improve her English to achieve these goals. Natsuko displayed a high level of commitment to developing a life for herself in Melbourne through the additional education she pursued during this study.
5.1.2 Yumi

Yumi is a Japanese female in her mid-twenties. In Japan she was the manager of a retail food outlet. She came to Australia to experience a gap-year during which she also hoped to improve her English skills, which she plans to utilise in future employment after she returns to Japan. Yumi arrived in Melbourne approximately two months before this study commenced, and as previously stated, became friends with Natsuko after arriving in Melbourne and self-identified to participate in this study with Natsuko as a pre-made pair.

All of Yumi’s education was completed in Japan, with Japanese being the language of instruction. Her English education began at junior high school (Year seven equivalent) and at the time of graduating high school, she had completed six years of English instruction. She described her English classes in a similar manner to Natsuko, stating that there was little opportunity to use the language in a way that was meaningful for her in either speaking or writing. This was exemplified when she said: “native teacher speak but we (were) just listening” (Yumi, Pre-interview). She did not experience writing instruction beyond constructing individual sentences while at high school. Yumi completed a tertiary qualification in business. While she stated that English classes formed part of her degree, they appear to have been of minimal influence, as she was not able to provide any detail on these classes. After arriving in Australia, she undertook an intermediate ELICOS unit at an English language school in Melbourne, describing the classes as:

… mainly I studied grammar, yeah, so I have test a once a week grammar and writing…

(Yumi, Pre-interview)

Yumi described her experiences of the course in a positive manner, stating “I think everything good” (Yumi, Pre-interview). Her classes incorporated some writing. The feedback process for writing tasks included a drafting process, during which she first received some indirect WCF and then resubmitted her text. She did not experience any negative feelings with this feedback process. Her comments included:
…teacher write it is wrong, so, after that I correct the answer and gave back to teacher…(it was) good

(Yumi, Pre-interview)

After completing the ELICOS class, Yumi started a barista course that began in the second week of this study. She undertook this course as a potential vehicle to find employment to help support her gap year in Melbourne. The adult learning centre offering the barista course states that the language requirements to undertake the course are an approximate IELTS band of 4.5 to 5.0.

Yumi came into this study with no experience of having worked in pairs when writing. She did not express a preference for working individually or working in pairs. However, she did note that she felt a partner of the same level was important because she believed they would need to help each other, whereas if one member of the pair were more advanced, the weaker learner would rely on the stronger partner rather than collaborating. Yumi’s overarching goal was to eventually gain employment that would utilise her English skills when she returned to Japan. In the shorter term, Yumi had the goal of passing her barista course and finding employment to help support her gap year in Melbourne. The activity systems these goals created, and her previous learning experiences and beliefs, all interacted with the activity system of this study. Her goals for participating in this study were to improve her English skills to assist her with daily life in Melbourne and help prepare her for any potential employment she may gain after her barista course. Yumi was successful in completing her barista course and found employment soon after the completion of this study.

5.2 Feedback session 1: Our own English resources only

In the first feedback session, Natsuko and Yumi were tasked with editing their co-constructed email to a store manager through the use of indirect WCF they had been provided with (for a copy of task instructions, the first and second draft see Appendix 2). The activity had the object of utilising the assistance provided in the form of indirect WCF to improve the quality of their text. Continuing with Foot’s (2014) argument that the object of an activity has three facets—the thing which is acted upon, an objectified motive, and a desired
outcome—Natsuko and Yumi shared the same object on all three levels. Natsuko and Yumi shared a desired outcome, which was to improve their overall English ability to assist with living and working in Australia. The thing to be acted upon and objectified motive were shared by participating in the activity of collaboratively processing the indirect WCF.

While the task was based on writing task 1 of the IELTS general English exam, neither participant discussed issues such as minimum word requirements and perceived strategies to enable a high score to be awarded during the feedback session. This is most likely due to Natsuko and Yumi not intending to undertake an IELTS exam. With the exception of one word (see turn 96 in interaction E4.2 in Appendix 6), all vocalised speech, including private speech, took place in English. This was despite Natsuko and Yumi sharing Japanese as a common dominant language. However, it is possible that Japanese was being utilised in sub-vocal private speech. Excerpt 5.1 is a representative example of how Natsuko and Yumi deployed their linguistic resources as they utilised the indirect WCF, collaborative dialogue and private speech to respond to the feedback. The original sentence and feedback was:

I bought a DVD player from your online shop then I received and used it

When did you buy it? 1 year ago? Can you separate the ideas in this sentence?

(Natsuko & Yumi, Writing Task 1, Draft 1)

This feedback became the catalyst for the following interaction:

Excerpt 5.1

3 Natsuko: separate the idea in sentence (high volume; reading WCF) I bought a DVD player from your | online shop | (low volume; no eye contact)

4 Yumi: (low volume; no eye contact)

5 Natsuko: online shop in last week (eye contact made at end of utterance)

6 Yumi: in last week (low volume, no eye contact)
In the first half of turn 3, Natsuko reads the feedback in a manner that, due to its high volume, suggests it is likely intended to serve the function of guiding her and Yumi as they orientate their approach to the feedback. This is soon followed by speech that fits Saville-Troike (1988) and Ohta’s (2001) description of private speech, as she re-reads the original sentence in a low volume with no eye contact in the second half of the same turn. Yumi joins in with this reading by simultaneously uttering the final words of the original sentence in unison with Natsuko in turn 4. In turn 5, Natsuko suggests adding in last week by making eye contact with Yumi as she completes her utterance. Yumi then appears to utilise private speech in turn 6 as she repeats the utterance to access her linguistic resources to evaluate the suggested edit. This process of accessing her linguistic resources is further indicated by her rolling her eyes upward and looking deep in thought after Natsuko questions the use of the preposition in in the following turn. A solution is mutually reached after Yumi agrees that one week ago is an acceptable solution.

Natsuko identified this interaction as one that primed her linguistic knowledge. In a similar manner to Carol and Kazue, excerpt 5.1 shows Natsuko and Yumi utilising a combination of the indirect WCF, collaborative dialogue and private speech to discover ways to respond to the feedback and generate CKPs. The excerpt also continues to corroborate Wells’ (1999) contention that private speech can perform an important role in collaborative dialogue and is not always easily delineated from collaborative dialogue. For further examples of interactions utilising a combination of the indirect WCF, collaborative dialogue and private speech to co-construct knowledge see interactions E4 and E4.1 in Appendix 6.
Throughout the first feedback session, Natsuko and Yumi displayed a high level of engagement with the activity by frequently completing each other’s utterances or saying the same thing simultaneously. Some examples of this occurring include:

Excerpt 5.2
11 Natsuko: bought a DVD player from your online shop
12 Yumi: one week ago (low volume; continues writing)
...
41 Yumi: I think, ah, se— (starts to say separate)
42 Natsuko: separate | is better |
43 Yumi: | separate is better | yeah

(Natsuko & Yumi, Feedback Session 1)

The division of labour Natsuko and Yumi developed, from a vertical perspective, was high in both equality and mutuality, with equality referring to the authority over the direction or flow of the task, and mutuality the level of interest given to each other’s suggestions (Damon & Phelps, 1989). The high level of equality is displayed in both participants taking a similar number of turns (Natsuko, 47; Yumi, 49) throughout the feedback session and both Natsuko and Yumi initiating discussion concerning an instance of WCF on eight occasions each. A high level of mutuality is indicated by all suggestions being afforded value in that they were never dismissed without due consideration, and all edits were made by mutual decision. Excerpt 5.1 provides an example of showing interest in and valuing each other’s suggestions, during which Yumi offers a correct suggestion in turn 8, only to accept an alternative suggestion offered by Natsuko in turn 10. Rather than insist on her own correct suggestion, Yumi willingly accepts Natsuko’s alternative. The level of mutuality is further evidenced by there being no missed opportunities in the feedback session that were due to one partner’s suggestions being rejected or afforded little value. There were, however, missed opportunities due to Natsuko and Yumi not utilising an inanimate expert, such as a smartphone, to assist them find an appropriate
response to the feedback. An example of this is when they were deliberating over the valediction of the letter as follows:

Excerpt 5.3
62 Yumi: ...kinds regards (said tentatively)
63 Natsuko: kinds regard
64 Yumi: kinds regards? (final /s/ on regards emphasised)
65 Natsuko: I’m not sure
66 Yumi: kinds

(Natsuko & Yumi, Feedback Session 1)

After deliberation, Natsuko and Yumi settle on the phrase *kinds regard* to close the letter. It is highly likely that the utilisation of an inanimate expert, such as an online dictionary, would have assisted them to find the correct phrase. From a horizontal perspective, the division of labour for processing the feedback was distributed equally. Both Natsuko and Yumi took responsibility for responding to the feedback. Yumi assumed the role of note-taker, making all notes on the typed-up version of draft 1 and undertaking responsibility of writing out the second draft of the writing task. The nature of the project meant that I assigned myself, the teacher/researcher, the responsibility of providing the WCF. No aspects of the WCF were questioned, indicating I was afforded the role of expert.

Natsuko and Yumi approached the task in a manner that resulted in proposed responses to the indirect WCF being further discussed when writing out the second draft. While processing the WCF, proposed solutions were written on the first draft in the form of notes and not complete sentences. When writing out the second draft, Natsuko and Yumi saw their suggestions being transformed into a more concrete form, often causing them to re-examine their solutions and once again engage in collaborative dialogue and private speech. The following example typifies how this phenomenon occurred. The original sentence in the first draft was as follows:

But I found out that it only play CDs and DVDs althoughs the web page said that it can play MP3 discs.
The collaborative dialogue and notes recorded on the typed-up version of their first draft indicate the proposed solution after discussing the feedback was as follows:

But I found out that it only play CDs and DVDs correctly but the MP3 player won’t working.

However, when Yumi started to write out the sentence for the second draft of the task, further languaging took place (see E4.2 in Appendix 6 for a transcription of the interaction) and the sentence became:

I found out that it could play CDs and DVDs correctly but MP3 player won’t working.

The pen and paper also became a tool through which private speech was deployed. This took place as follows:

Excerpt 5.4
73 Yumi: customer, customer, customer, customer (low volume, no eye contact, starts to write on fourth iteration; writes out six times on draft one)
74 Natsuko: u?
75 Yumi: customer (low volume, no eye contact)
76 Natsuko: o? (Yumi laughs)
77 Yumi: cu, c, o, u, u, s (saying each letter individually)
78 Natsuko: I think c, u, s, t (saying each letter individually)
79 Yumi: cust, t, u, e (saying each letter individually) ah? (Natsuko laughs), ah, customer

When attempting to write out the lexical item customer, Yumi first deploys private speech in an attempt to access the correct spelling of customer in
turn 73. After this, she then writes the word out six times on the first draft—each with various spellings. This private speech, both the audible and written form, becomes part of a collaborative dialogue to find a solution as Natsuko eventually joins in the interaction.

In Natsuko and Yumi’s first feedback session, the most common manner by which a co-constructed knowledge point (CKP) was generated was through the utilisation of a combination of the indirect WCF, collaborative dialogue and private speech. Eight of the total 13 CKPs were generated in this manner. The remaining five CKPs were identified as being generated via the feedback only. They created an activity system that did not allow the overt use of their dominant language or the assistance of an inanimate expert, which the retrospective interviews revealed was largely due to previous learning experiences and language learning beliefs—a point taken up further in Chapter 6. Natsuko identified seven CKPs, with her considering four of these to be priming of existing knowledge and three to be the construction of new knowledge. Yumi identified six CKPs, with four of these being considered as priming of existing knowledge and one as the creation of new knowledge. A summary of the CKPs identified by Natsuko and Yumi is presented in Table 5.1.

<table>
<thead>
<tr>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natsuko</strong></td>
<td><strong>Yumi</strong></td>
</tr>
<tr>
<td>Development of lexis: no preposition required when using <em>ago</em>; pronunciation of <em>working</em>; spelling of <em>customer</em>; Task strategies: clarification of how problem was discovered;</td>
<td>Development of lexis: how to use of short form of will not (<em>won’t</em>); pronunciation of <em>working</em>; spelling of <em>customer</em>; Task strategies: clarification of how problem was discovered;</td>
</tr>
<tr>
<td>Task strategies: opening of <em>to whom it may concern</em> is not always appropriate; need to specify when item was purchased; Communicative solutions: phrase <em>how to solve</em>;</td>
<td>Task strategies: need to specify when item was purchased</td>
</tr>
</tbody>
</table>

Table 5.1 CKPs identified by Natsuko and Yumi in feedback session 1
Communicative solutions: the phrase *how to solve*

5.3 Feedback session 2: A little Japanese and a smartphone

With the second feedback session utilising direct WCF in the form of an example answer (see Appendix 2 for a copy of the example answer), there is a change to the object of the activity. When applying Foot’s (2014) criteria to the object of an activity, the second facet—the objectified motive—differs from feedback session 1 due to participants reading through and discussing the example answer rather than being required to make edits to their text, resulting in a symbolic outcome only. Despite the change in object, several aspects of the activity system remained static when compared with the first feedback session. For example, there was little change in the division of labour, there was no evidence of IELTS test requirements influencing the activity, and the main vehicle by which CKPs were created was not the feedback itself, but the interactions initiated by the feedback. There was, however, a shift in the perceived rules of the activity. As I will go on to discuss in detail, the revised rules changed the tools participants were prepared to utilise when processing the feedback.

With a symbolic outcome only, participants were not required to use a pen and paper. However, Natsuko took it upon herself to underline sections of the example answer she and Yumi found difficult to understand. This is in contrast to feedback session 1, during which Yumi assumed the role of writing out solutions. When considering the division of labour from a vertical perspective, equality and mutuality remained high. High equality was displayed with both participants pushing the activity towards completion in equal amounts, evidenced by the number of turns taken by each participant (Natsuko 47, Yumi 48) and both participants initiating discussion on an instance of feedback on seven occasions each. Mutuality also remained high, evidenced by Natsuko and Yumi attempting to answer each other’s questions (for examples see excerpt 5.5 in this chapter and interaction F4 in Appendix 6) and working together to find a solution (see excerpt
Early in the feedback session, Natsuko and Yumi were reminded that they were free to use resources such as online dictionaries or translation tools and that they had permission to converse in Japanese if they so desired. Despite this, there was significantly more English than Japanese used throughout the feedback session, with Japanese being used in 23 of the total 95 turns participants took during the feedback session. Analysis of participant interactions indicated Japanese was used to perform three functions. The first of these was not as a tool to process the WCF, but to guide the activity, for example, turn 20 in interaction F3 and turn 70 in excerpt 5.6 in this chapter, and included phrases such as “ja fumei na tokoro sen wo [okay let’s underline the sections we do not understand]” (Natsuko, Feedback session 2).

A second function was displayed by Natsuko when she was teaching Yumi the meaning of vocabulary. Of the three requests Yumi made for clarification of lexis, Natsuko answered two of them in English and one in Japanese. An example of Natsuko using English for one request and then Japanese a few turns later is as follows:

Excerpt 5.5

47 Yumi: refund is?
48 Natsuko: cash back
49 Yumi: cash back (low volume, no eye contact)
(6 seconds of silence)
50 Yumi: postage?
51 Natsuko: postage ah kitteiteki na kanji [kind of like a postal stamp]

(Natsuko & Yumi, Feedback Session 2)

In turn 48 of the above example, Natsuko is able to access her English resources immediately and answer Yumi’s question in a timely manner. In turn 51, there is a hesitation with the filler *ah*, after which Natsuko then explains the lexical item in Japanese. In her first retrospective interview, Natsuko stated that at this stage of the study she preferred to utilise English as much as possible, but
when these resources were either insufficient or not readily accessible, she was prepared to utilise Japanese resources.

A third function Japanese performed for Natsuko and Yumi was to assist them both to understand phrases and sentences which they found difficult to comprehend. This function often resulted in the use of an inanimate expert by accessing an English/Japanese\(^5\) dictionary via their smartphones. Natsuko and Yumi had particular trouble with the following sentence:

> On Monday I purchased a DVD player from your online shop with a view to playing MP3 discs, CDs and DVDs only to find that it will not play MP3 discs.

*(Example Answer for Collaborative Writing Task 1)*

After attempts to understand the sentence using English had failed, Natsuko and Yumi used Japanese to mediate their discussion as follows:

Excerpt 5.6

66 Natsuko: *kore ha onrain shoppu no MP3 disku tsukaeru to iu no wo mita kara katta toiu koto mite kaimashita*  
[This sentence means I bought the DVD player because I read it could play MP3 discs on the online shop?]

67 Yumi: with a view (looks deep in thought, low volume, no eye contact)

68 Natsuko: with a view, view to playing (second half low volume, no eye contact)

69 Yumi: with a view to, a view, with a view, view, with a view to playing XXXXX, (volume decreases during turn, no eye contact)

70 Natsuko: *dete kuru kana* [I wonder if I can find it (in the dictionary)] (Natsuko goes to smartphone to use dictionary)

(24 seconds of silence while searching on smartphone)

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\(^5\) Retrospective interviews confirmed that this was an English to Japanese dictionary.
In turn 66 Natsuko interprets what she believes the first half of the sentence is saying, after which both she and Yumi produce utterances which fit the description of private speech as they appear to try to understand the phrase *with a view to* in turns 67 and 68. Natsuko then decides to utilise an online dictionary in turn 70. While Natsuko initiates and performs this action, Yumi participates by looking on and reading the results found on Natsuko’s smartphone. After finding the meaning of *with a view to*, both Natsuko and Yumi use a combination of English and Japanese in turns 72 and 73 which fit the criteria of private speech. After Natsuko states a Japanese translation of the phrase *with a view to* in turn 72, Yumi then adds to this by translating the complete phrase in the context where it is used in the example answer in turn 73. Private speech continues to be difficult to delineate from collaborative dialogue, and in these turns it also acts as part of the collaborative dialogue for Natsuko and Yumi, evidenced as Yumi builds upon Natsuko’s private speech from turn 72. In the first retrospective interview, Natsuko stated that these tools (Japanese, the online resources, collaborative dialogue and private speech) enabled her to understand the phrase, which she identified as a new CKP. This CKP identified by Natsuko is also a representative example of how it was once again more common for CKPs to be generated via the interactions the feedback initiated, rather than the feedback itself. It should be noted, however, that Yumi did not identify a CKP being generated from this interaction, and as such this particular interaction was not enough for her to feel she grasped the meaning of the phrase, despite accurately translating it in turn 73. Natsuko used her smartphone to access an inanimate expert on three occasions and Yumi on one. However, Yumi looked on and read Natsuko’s smartphone with her on two occasions and continued to be actively involved while Natsuko used her smartphone.
In a similar manner to Carol and Kazue, Natsuko and Yumi also corroborated Swain et al.’s (2011) contention that interactions with an artefact are influenced by whom the interaction takes place with. This was evident on several occasions when the direct feedback was adapted either by drawing on a partner’s linguistic resources (for example see excerpts 5.5 in this chapter and interaction F4 in Appendix 6), or working collaboratively to come to understand specific sections of the example answer (see excerpt 5.6 in this chapter). In their first retrospective interviews, Natsuko and Yumi stated there were sections of the example answer they could not come to understand, indicating that sections of the example answer were too difficult for them. This appears to have caused them to focus on the meaning of the example answer rather than allowing it to identify covert problems they encountered in their original attempt at the task. This is evidenced by the fact that none of the CKPs identified by participants were communicative solutions (i.e., participants finding a clearer manner to express themselves). Additionally, this may explain why Natsuko and Yumi identified only one CKP each which was generated by pointing out phrases or strategies they perceived as useful to each other. This occurred when they pointed out the lexical item purchase as potentially a more appropriate alternative to buy. Despite the second feedback session being half the length of the first, participants produced more utterances which were unambiguously private speech—15 in the second feedback session and six in the first. Private speech has multiple functions (Lantolf & Yáñez, 2003), one of which is to guide oneself through demanding tasks (Frawley & Lantolf, 1985), and as such it likely that the difficulty Natsuko and Yumi experienced increased its usage.

There was one incidence of a missed opportunity arising from participants not utilising an inanimate expert in interaction F4 (see Appendix 6). Natsuko and Yumi drew on each other’s resources in a manner they believed was successful in determining the pronunciation of capable. However, the correct pronunciation was not realised. Furthermore, Yumi constructed an incorrect meaning of the word, with her stating in retrospective interview 1 that capable meant yōryō [capacity]. Natsuko confirmed a correct understanding of the word in her first interview but the erroneous pronunciation continued.
Finally, in a similar manner to Kazue, Natsuko and Yumi also displayed evidence of learning that did not appear on the interpersonal plane in the form of collaborative dialogue or private speech—the task strategy of introducing oneself as a new customer when contacting a store regarding their enquiry. While they introduced themselves as a customer in their second attempt at the task, they identified the strategy of introducing themselves as a new customer as a CKP from reading the example answer.

Feedback session 2 saw a shift in the rules of the activity, which in turn facilitated the additional tools of participants’ Japanese language resources and an inanimate expert to be utilised. Natsuko identified 10 CKPs, with her considering seven of these to be priming of existing knowledge, and three to be the construction of new knowledge. Yumi identified eight CKPs, with three of these being considered as priming of existing knowledge and five as the creation of new knowledge. Amongst the 18 CKPs identified by participants, only six were generated via the feedback without additional object- or other-regulation. A summary of the CKPs identified by Natsuko and Yumi is presented in Table 5.2.

Table 5.2 CKPs identified by Natsuko and Yumi in feedback session 2

<table>
<thead>
<tr>
<th></th>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
</table>
| Natsuko| Development of lexis: consolidation and usage of purchase, refund, postage, state; pronunciation of packaging and capable (not correct) | New lexis: meaning of with a view to playing and yours faithfully
|        | Task strategies: introducing oneself as a new customer*                 | Task strategies: need to request postal address for returns          |
| Yumi   | Development of lexis: consolidation and usage of purchase; pronunciation of packaging | Development of lexis: pronunciation of capable (incorrect)           |
|        | Task strategies: introducing oneself as a new customer*;                | New lexis: meaning of state; refund; postage; yours faithfully       |

*Indicates an instance of learning that was not evident in collaborative dialogue or private speech
5.4 Feedback session 3: More Japanese and online resources

In the third feedback session, participants were presented with the task of editing their co-constructed argumentative essay, which was based on the second writing task of an IELTS General test (for a copy of task instructions, draft one and two, see Appendix 2). In the same manner as feedback session 1, editing was performed through the utilisation of indirect WCF. The indirect WCF changes the object of the activity when compared with feedback session 2, with the co-constructed text becoming the “thing-to-be-acted-upon” (Foot, 2014, p. 333). The feedback session saw the tools participants were prepared to use continue to develop, with participants increasing usage of their dominant language and an inanimate expert. The usage of these tools was interdependent, as the increased usage of one influenced the frequency and manner of usage of the other. This also changed the manner by which CKPs were generated during the feedback session.

Continuing on from feedback session 2, Natsuko and Yumi extended their freedom to utilise their Japanese linguistic resources and their smartphones to access online dictionaries. This is evidenced by Japanese being used in slightly over 50% of the turns (89 out of 173) that made up the feedback session and smartphones being used on 18 occasions. In addition to the increased usage of these tools, Natsuko and Yumi also used them to perform new roles. In a similar manner to the second feedback session, Japanese was at times used to guide the activity and convey simple messages. Examples of such utterances include: “atteru ka wakaranai kedo kaku ne [I’m not sure if it is correct but I’ll write it down anyway]” (Natsuko, Feedback Session 3) and “nanka aru ato [is there anything else (you want to discuss)]” (Yumi, Feedback Session 3). However, rather than using these tools to understand the solutions to linguistic problems found in the example answer (explaining unknown lexis and discussing phrases they found difficult to understand), Natsuko and Yumi started to use Japanese and online resources as a tool to mediate their languaging as they collaboratively found ways to respond to the indirect WCF. A representative example of this occurred as they responded to the following instance of WCF:

This paragraph discusses the opposing argument from the previous paragraph. Is there a phrase you could use to introduce this?
If we don’t have a uniform, student can choose whatever they want to wear.

(Natsuko & Yumi, Collaborative Writing Task 2, Draft 1)

Natsuko and Yumi discussed how to respond to this instance of feedback as follows:

Excerpt 5.7

80 Natsuko: *kono mae ni setsuzoku hitotsu no nani ka no setsuzokushi de* [before this link, we need some sort of conjunction]

81 Yumi: *ikko no setsuzokushi* [just one conjunctive expression]

82 Natsuko: *tsugi ni hoka* [next something else]

83 Yumi: *un* [yeah]

84 Natsuko: *nan ka* [I wonder what?]

85 Yumi: *tsugi no bun wo dō suru no* [what shall we do with the next sentence?]

86 Natsuko: *bun de ireyō ka* [Shall we insert it using a sentence?]

87 Yumi: *dō nan da setsuzokushi de ō yō na ki ga suru kedo* [what shall we do? I have a feeling just a conjunction would be okay]

88 Natsuko: *gyaku ni mitai na* [something like opposite to]

89 Yumi: *un ipp* [yeah, ipp (ipp is the first syllable of ippōde)]

90 Natsuko: *ippōde* [on the other hand]

91 Yumi: *ippōde* [on the other hand] *ippōde tte nan darō* [what is ippōde (in English)?]

(Both look at Yumi’s smartphone for 6 seconds)

92 Yumi: on the other hand

93 Natsuko: on the, on the other hand

(Natsuko & Yumi, Feedback Session 3)

Excerpt 5.7 shows Natsuko and Yumi languaging in the form of collaborative dialogue in their dominant language Japanese. In turns 80 to 86, Japanese is the tool that mediates their thinking to first identify the problem as
they decide the use of some sort of contrastive phrase or sentence to introduce the opposing argument. This leads Yumi to the realisation that perhaps a conjunctive word or phrase rather than a sentence may be sufficient in turn 87, with Natsuko building on this in the next turn by offering a Japanese phrase that serves this function. After a few seconds of silent processing, Yumi says the first syllable of the Japanese phrase ippōde [on the other hand], which is then followed by both Natsuko and Yumi saying the phrase ippōde simultaneously. After this solution was found in Japanese, Natsuko watches on as Yumi searches for the English equivalent.

While there was a significant increase in the amount of Japanese utilised when Natsuko and Yumi talked with and to each other, their private speech continued to be mainly in English. As previously noted, private speech is not always easily delineable from speech that is directed at another. However, in this feedback session there were 13 instances of utterances that unambiguously met the criteria of private speech, with the criteria consisting of low volume, incomplete utterances and no attempted eye contact (Ohta, 2001; Saville-Troike, 1988). Only two of these instances utilised Japanese, indicating that the shift of utilising Japanese had not filtered through into the domain of private speech. It needs to be once again noted that this is not to say that sub-vocal private speech in Japanese was not occurring. This feedback session saw a continuation of the trend of direct WCF in the form of an example answer resulting in more overt private speech than when processing indirect WCF. Despite the third feedback session being more than twice as long as the second, fewer utterances that fit the criteria of private speech were produced—13 in the latter compared with 14 in the former.

Using Japanese to find solutions to respond to the WCF set up a new role for the online resources, with Natsuko and Yumi now able to first find solutions in Japanese and then find the English equivalent via an inanimate expert. The majority of smartphone usage occurred after a response to the WCF had been decided on via Japanese. Turns 90 to 93 of excerpt 5.7 are a representative example of how after Japanese had mediated a response to the feedback, online resources were then used to find the English equivalent of a Japanese word or phrase. In addition to searching for lexical items, online resources were also used
to investigate metalinguistic knowledge of known lexis. A representative example of this is as follows:

For example, the gender problem, too strict, no personality.

(Natsuko & Yumi, Collaborative Writing Task 2, Draft 1)

This instance of WCF led to the following discussion:

Excerpt 5.8

45 Yumi:  …meishi ni shinai to ikenai [we need to make them nouns]
46 Natsuko:  dō darō [I wonder]
(7 seconds of silence)
47 Natsuko:  un un un kore ni tsunagaru nara [yes, yes, yes if we are going to connect them]
48 Yumi:  un [yes]
…
(both Natsuko and Yumi take out smartphones and search; 40 seconds pass)
51 Yumi:  strictness, strictness
52 Natsuko:  un [yeah] (Natsuko looks at Yumi’s smartphone)
53 Yumi:  strict is adjective
54 Natsuko:  un un [yes, yes]
55 Yumi:  so meishi [noun] is strictness…

(Natsuko & Yumi, Feedback Session 3)

In the above excerpt, Natsuko and Yumi arrive at the solution that the grammatical errors of the sentence are concerned with the form of the lexis gender problem, too strict, and no personality—concluding that all of these lexical items needed to be in their noun form to be connected as a list of examples. After Natsuko comes to agree with this solution in turn 46, online resources are utilised to find the noun form of the adjective strict. With both Natsuko and Yumi identifying the noun form of the adjective strict as a new CKP, the interaction with the online resources was an essential part of this knowledge being constructed.
Natsuko and Yumi displayed a change in the division of labour from a horizontal perspective. In the first feedback session, Yumi assumed the role of making a note of all proposed edits on the first draft and then writing out the whole of the second draft. However, in the third feedback session, Natsuko assumed the role of making a note of all proposed edits. There was no real discussion of these roles; Natsuko volunteered to make notes during their discussion of the first instance of indirect feedback (see interaction G1 in Appendix 6) and continued in the role throughout the feedback session, with Yumi occasionally making what appeared to be very minor notes. After the indirect feedback had been processed, Yumi assumed the role of writing out the second draft via non-verbal behaviour by picking up the blank paper on which to write out the second draft and confirming with Natsuko whether she felt any more edits were required.

Analogous with feedback sessions 1 and 2, Natsuko and Yumi continued to work as a dyad with high equality and mutuality. The high equality is reflected in both participants taking a similar number of turns in the feedback session (Natsuko, 93; Yumi, 88) and Natsuko initiating discussions on 21 occasions and Yumi on 19. There continued to be no evidence of missed opportunities for learning due to a suggestion being afforded with little interest or value. Furthermore, there continued to be no evidence of the external expectations of IELTS test requirements, such as word limits, influencing the activity.

Feedback session 3 saw Natsuko and Yumi significantly increase their usage of Japanese and an inanimate expert. The main manner by which CKPs were generated continued to be via the interactions the feedback generated rather than the feedback alone, with all CKPs being identified as a result of interactions in which they had engaged in collaborative dialogue. Following on from the second feedback session, Natsuko and Yumi revised the rules of the activity to allow more extensive usage of their dominant language and online resources. Retrospective interviews show that this was also due to a shift in the value they placed on these tools rather than simply being advised that these tools were permissible—an issue explored in detail in Chapter 6. The use of the dominant language also influenced how the inanimate expert was utilised, with online resources most commonly being used to find the English equivalent of proposed
solutions they had reached while languaging in Japanese. The use of the dominant language and an inanimate expert highlighted a change in how knowledge was co-constructed and also the dynamic nature of the activity, which revealed participation in the activity changed participants’ perception of certain tools.

Natsuko identified seven CKPs, with her considering five of these to be priming of existing knowledge and two to be the construction of new knowledge. Yumi identified seven CKPs, with five of these being considered as priming of existing knowledge and two as the creation of new knowledge. A summary of the co-constructed knowledge points identified by Natsuko and Yumi are presented in Table 5.3.

Table 5.3 CKPs identified by Natsuko and Yumi in feedback session 3

<table>
<thead>
<tr>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natsuko</strong></td>
<td>**Development of lexis: usage of <strong>summarise</strong>; <strong>student</strong> is a countable noun; <strong>people</strong> is plural form of person; modal verb <em>might</em> does not need verb <em>to be</em> when followed by another verb; <strong>Communicative solution:</strong> conjunctive expression <em>on the other hand</em></td>
</tr>
<tr>
<td><strong>Yumi</strong></td>
<td><strong>Development of lexis:</strong> <strong>student</strong> is a countable noun; use of pronoun <em>that</em> to refer to inanimate noun; modal verb <em>might</em> does not need verb <em>to be</em> when followed by another verb; need for preposition <em>in</em> with expression <em>in our opinion</em> <strong>Communicative solution:</strong> conjunctive expression <em>on the other hand</em></td>
</tr>
</tbody>
</table>
5.5 Feedback session 4: The dominant language ‘dominates’

Feedback session 4 consisted of Natsuko and Yumi being presented with direct WCF for the second draft of their argumentative essay. The direct WCF took the form of an example answer (see Appendix 2 for a copy of the example answer). The feedback session saw the trend of utilising Japanese language resources continue to increase. Additionally, in contrast to feedback session 2, Natsuko and Yumi experienced less difficulty in understanding the example answer and were able to identify sections in it that more clearly expressed ideas they found difficult to express in their original attempts at the task.

Analogous with the second feedback session, the nature of the direct WCF results in the outcome of the feedback session to be symbolic only. Participants were not required to write out anything, but instead to discuss features of the example answer they noticed. However, in the same manner as feedback session 2, Natsuko and Yumi highlighted or underlined sections they perceived as requiring further discussion. They continued to show signs of a high level of engagement with the task, evidenced by regularly completing each other’s utterances or speaking simultaneously (for example see interaction H11 in Appendix 6). They also continued to work as a community with a high level of equality and mutuality. The high level of equality was evidenced by both Natsuko and Yumi taking a similar number of turns throughout the feedback session (Natsuko, 57; Yumi, 54) and Natsuko initiating discussion on five occasions and Yumi seven. The high level of mutuality was reflected by each participant acknowledging and attempting to answer all of each other’s questions, including direct requests for help (for example see interaction H2 in Appendix 6) and an indirect request in which Natsuko stated that she did not understand the lexical item obey and Yumi immediately provided an explanation (see interaction H3 in Appendix 6).

The usage of Japanese continued to increase, with approximately 80% of turns (88 of 112) including some Japanese usage. Furthermore, the few utterances that did not contain any Japanese were actually a participant reading sections of the example answer out aloud or in overt private speech, rather than a participant using the target language as a vehicle of expression to discuss the feedback.
When considering only one word of Japanese was used in the first feedback session, Natsuko and Yumi displayed a significant shift in their preparedness to use their dominant language when processing WCF—a change further discussed in Chapter 6. Additionally, when English words or phrases were utilised in dialogue, the English words were used with the purpose of indicating the subject of an utterance spoken in Japanese. Examples of this include: “neat tte dōiu imi neat [neat, what does neat mean?]” (Yumi, Feedback Session 4) and “obey ga wakaranai [I don’t know obey] (Natsuko, Feedback Session 4). In these utterances, the English words are identifying the subject of discussion, rather than being used as a vehicle for participants to communicate their thoughts. In a similar manner to feedback session 3, Japanese was at times used for non-languaging purposes and conveyed simple messages, for example “imi ha wakaru kedo [I understand its meaning, but]” (Yumi, Feedback Session 4) and “tsukurenai in toka irechai sō [I cannot produce it, I would insert an ‘in’ or something similar]” (Natsuko, Feedback Session 4). Natsuko and Yumi effectively carried out the feedback session in their dominant language, with Japanese being used to help them understand the example answer, teach each other lexis, guide the activity and sustain dialogue. The extensive use of the dominant language is very similar to that in peer revision tasks reported on in Villamil and Guerrero (1996) (see section 2.2.2 for more details). Furthermore, the increase of usage as the study progressed is similar to what Storch and Aldosari (2010) report, with the participants in their study also increasing dominant language use as the study progressed. Differences in the design of this study and Storch and Aldosari’s makes a direct comparison problematic, however, a congruent theme with this study is that as participants became more comfortable with each other and with using the dominant language, its usage increased.

The frequency of inanimate expert usage also increased to nine occasions in feedback session 4. When compared with the previous occasion they processed direct WCF (feedback session 2), usage slightly more than doubled—although comparing this to feedback session 3 is potentially misleading due to it being approximately twice as long and utilising indirect WCF. In feedback session 2, English was used to explain the meaning of two out of three questions regarding
lexis and a dictionary was not used after Natsuko explained them. However, on
the two occasions this occurred in feedback session 4 (see interactions H2 and H3
in Appendix 6), only Japanese was used and an online dictionary/translation tool
was utilised immediately after an explanation was provided. This indicates a shift
towards utilising their dominant language and object-regulation rather than other-
regulation in English when encountering unknown lexis. Yumi further utilised the
learning available to her via object-mediation when she used an online dictionary
to find the correct pronunciation of the word **neat**—a lexical item that she did not
know. After both participants discovered the meaning of the word via their
smartphones, the following occurred:

Excerpt 5.9

52 Yumi: neat /neto/ neat /neto/

53 Natsuko: some people prefer uniform (no eye contact, reading to
self; Yumi listens to pronunciation of ‘neat’ via
smartphone)

54 Yumi: neat, neat (pronounced correctly as /niːt/)

(Natsuko & Yumi, Feedback Session 4)

In turn 52 Yumi attempts to pronounce **neat**. While the utterance was not low in
volume, it appears to function as private speech as she tries to discern how to
pronounce the word. Natsuko either does not know the correct pronunciation or
does not notice it, due to her effectively shifting into a different activity as she re-
reads the direct feedback with the new knowledge of what the lexical item **neat**
means in turn 53. During this time, Yumi listens to the pronunciation of **neat** via
an online dictionary and then engages in what again appears to be private speech
in function (despite the normal volume) as she imitates the correct pronunciation
of **neat**. This was the first time for any participant to use an inanimate expert to
correct erroneous pronunciation.

In a similar manner to feedback session 2, Natsuko and Yumi adapted the
artefact to meet their partner’s needs by explaining aspects of the direct feedback
to each other, once again corroborating the argument that interactions with an
artefact are influenced by whom the interaction takes place with (Swain et al.,
2011). An example of this can be found in excerpt 5.10, when they were
discussing the following sentence:
School uniform can also promote safety and security by making it easier to notice people who should not be on the school grounds.

(Example Answer, Natsuko & Yumi, Collaborative Writing Task 2)

The request Natsuko made resulted in the following interaction:

Excerpt 5.10

76  Natsuko:  *koko dōiu imi* [what does this mean?] shouldn’t, who shouldn’t be on the school ground

(9 seconds of silence)

77  Yumi:  *uh schools can be sokushin suru sokushin* [to promote promote] (low volume, no eye contact) *anzensei to sekuriti wo sokushin suru* [promoting safety and security] by making it easier to notice

78  Natsuko:  who, who sho— (start of should), who *kara* shouldn’t be on the school ground *seitō* [from who should not be on the schools ground, student] student?

79  Yumi:  *chigau sono* strange person [no, the strange person]

80  Natsuko:  *ā* strange person *no koto* [ah, the strange person] (laughs)

81  Yumi:  shouldn’t be school ground *ni hen na hito tte koto janai kana gakkō ni iru beki janai hito* [strange people who shouldn’t be on school grounds]

82  Natsuko:  *ā* [okay]

83  Yumi:  *ā chigau ka* [mm, am I incorrect?]

84  Natsuko:  *ā ā* [okay, okay] should XXXXX by making it easier to notice people who should not be [low volume, no eye contact] *sokka gakkō ni irubeki janai hito ittara seifuku kiteinai kara wakaru tte imi ka* [I see, does it mean that we can notice a person who shouldn’t be on school grounds because they aren’t wearing a uniform]

85  Yumi:  *un un* [yeah, yeah]

86  Natsuko:  *ryōkai* [I understand]

(Natsuko & Yumi, Feedback Session 4)
In the above excerpt, Natsuko requests assistance in turn 76 because she does not understand whom the pronoun *who* is referring to. After a brief pause, Yumi begins by offering a translation of the first half of the sentence in turn 77. It is not clear whether or not this is to assist herself understand the sentence or to assist Natsuko. However, the use of some private speech in the utterance indicates her own thinking is being mediated, a notion further evidenced by Yumi stating that talking it through in turn 77 helped her to understand the sentence during her second retrospective interview. Natsuko then, albeit incorrectly, suggests that the pronoun *who* is referring to students. Yumi tells her that this is incorrect in turn 79, and then further expands her thoughts in both English and Japanese in turn 81. This process brings Natsuko to a point of being able to understand the sentence—with her understanding being evidenced in turn 84 when she offers a correct translation of the complete sentence. Interestingly, the process of languaging appears to have caused Yumi to doubt her understanding when she questions herself in turn 83, however these doubts appear to be alleviated after Natsuko provides her with a translation in the following turn, with Yumi agreeing with Natsuko in turn 85. The excerpt also shows Natsuko and Yumi utilising their Japanese linguistic resources in both collaborative dialogue and private speech to assist them to mediate sections of the direct feedback they found difficult to comprehend. Both Natsuko and Yumi identified coming to a more complete understanding of this relative clause as a CKP that primed existing knowledge.

For the first time, Natsuko and Yumi identified clearer ways to express themselves while processing the example answer. Both Natsuko and Yumi drew each other’s attention to an area they saw as a solution to a problem they encountered when attempting the task on one occasion each (see interaction H3 and H11 in Appendix 6). It should be noted, however, that while they noticed these solutions, they did not identify them as CKPs in their retrospective interviews. The phenomenon of finding clearer ways to express ideas they found difficult in their original attempts at the task did not occur in the second feedback session. One potential reason for this is participants appeared to find the example answer in feedback session 4 less challenging than in feedback session 2. This is evidenced by that fact that through the use of both other- and object-regulation, they were able to grasp the meaning of all sections of the example answer in
feedback session 4. In feedback session 2, even after utilising both object- and other-regulation, they were sections of the example answer that they felt they had not been able to grasp.

Akin to the first three feedback sessions, the external expectations or rules of the IELTS general writing task, on which the activity was based, did not influence their approach to the task. Despite the increased usage of Japanese, private speech was largely conducted in English with only three of a total of eight utterances fitting the criteria for private speech being deployed in Japanese. One possible reason for this is that most instances of private speech occurred as a participant repeated sections of the example answer to themselves, most likely as a way of making sense of a particular phrase or sentence.

The fourth feedback session saw Natsuko and Yumi’s dominant language drive the activity. The only utterances which contained no Japanese were utterances where a participant was reading sections of the example answer aloud or repeating sections in overt private speech. The usage of an inanimate expert also continued to increase, with participants shifting towards using Japanese and object-regulation rather than other-regulation in English when dealing with unknown lexis. During feedback session 4, Natsuko identified six CKPs, with her considering three of these to be priming of existing knowledge and three to be the construction of new knowledge. Yumi identified four CKPs, with two of these considered as priming of existing knowledge and two as the creation of new knowledge. Nine of the 10 CKPs identified by Natsuko and Yumi were generated during interactions in which collaborative dialogue had been utilised, once again evidencing that the main manner by which CKPs were generated was through the interactions the feedback generated rather than the feedback itself. A summary of the CKPs identified by Natsuko and Yumi is presented in Table 5.4.

<table>
<thead>
<tr>
<th>Natsuko</th>
<th>Primed</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Development of lexis: use of argument*;</td>
<td>New lexis: meaning of for and against, neat, and obey</td>
</tr>
</tbody>
</table>
Linguistic knowledge:
understanding relative clause
who should not be on school grounds;
understanding clause
need to learn to decide on what
to wear to work

Yumi
Development of lexis:
reinforced meaning of obey;
Linguistic knowledge:
understanding relative clause
who should not be on school grounds;

New lexis: meaning of for and against, neat

* indicates learning not discussed with partner and therefore not evident in LRE

### 5.6 Natsuko and Yumi: A summary of their experiences

Throughout the four feedback sessions, there was no evidence of task requirements such as word counts or test taking strategies influencing their responses to the WCF. This is most likely due to their desired outcomes not involving a formal examination. The horizontal division of labour was set arbitrarily with roles differing in each feedback session, with the role of note taker or writing out the new version of the text often set through a gesture rather than any discussion. Natsuko and Yumi operated with a high level of mutuality and equality throughout the feedback sessions. As such, there were no missed opportunities for learning due to a suggestion being afforded little value.

In a similar manner to Carol and Kazue, the majority of learning identified by participants was not so much a result of the feedback itself, but more a result of the interactions the feedback initiated. This is evidenced by 80% of CKPs (44 out of 55) being identified from interactions where their partner acted as the expert and supported them to develop a deeper understanding of a linguistic issue, or where both participants pooled their resources to find a solution, which sometimes involved the use of an inanimate expert.
After the introduction of Japanese and an inanimate expert into the activity, the usage of these resources increased steadily over the course of the study. The expansion of the tools Natsuko and Yumi were prepared to utilise changed as their perceived rules of the activity evolved and the value they placed on their dominate language and an inanimate expert increased with each feedback session—a theme further discussed in Chapter 6. Overall, participants utilised overt private speech on more occasions when processing direct WCF, despite the direct feedback taking approximately half the time to process than indirect feedback. Based on the argument that one of the functions of private speech is to guide oneself through demanding tasks (Frawley & Lantolf, 1985), this appeared to be due to Natsuko and Yumi finding the example answers challenging. The difficulty they experienced appeared to cause their discussions of the feedback to centre more on the meaning of the example answer rather than task strategies and communicative solutions. This was reflected in no CKPs related to communicative solutions being identified after processing direct WCF.

The provision of indirect WCF and direct WCF resulted in approximately the same number of CKPs being identified by participants, with the indirect WCF sessions being attributed with 27 CKPs and the direct sessions with 28 CKPs. The type of knowledge created ranged from learning the meaning of unknown lexis to task strategies to deploy when completing tasks of a similar nature. These results are again in contrast to the cognitively based studies discussed in the literature review which have found WCF to be most beneficial when addressing simple rule based linguistic items (see Bitchener, Young & Cameron, 2005; Ferris, 1999; Ferris & Roberts, 2001). Additionally, with both Natsuko and Yumi both identifying a total of 55 CKPs, the premise that unfocussed WCF inhibits learning (see Ellis et al., 2008; Sheen et al., 2009) was not corroborated. I do note that a true comparison cannot be made if they had received focused WCF, however, based on a total of 55 CKPs being identified, I argue any such posited limitations appear to have not occurred.

5.7 A short interlude: The story so far

Before discussing the remaining research questions in the chapters to follow, namely the factors which impacted the learning potential of the WCF and
how learners utilised the knowledge they co-constructed in subsequent output, it is useful to highlight the key findings emerging from the results of both pairs.

The first key finding is that the processing of WCF collaboratively was able to generate a combined total of 115 CKPs being identified by all participants over the course of four feedback sessions, with 63 of the CKPs being identified as the priming of knowledge which was already in the process of maturation, and 52 as the creation of new knowledge. For both pairs, it was not so much the WCF creating or priming knowledge. There were some instances of the WCF being sufficient to assist a participant to identify a problem, find a solution and in the process create or prime knowledge; however, the most common pattern of knowledge being constructed was through the interactions that the feedback initiated rather than the feedback itself. This finding corroborates the key aspect of I. Lee’s (2014) argument that the object of the activity when processing WCF requires revision. Due to this study utilising unfocussed WCF and peer-to-peer interactions rather than teacher-student interactions, it does not exactly meet the criteria Lee sets out in her paper. Nevertheless, the most important element, I argue, is Lee’s contention that the object of the activity from a teacher’s perspective is not to simply correct errors but to provide learners with mediating learning experiences. Lee goes on to argue that the object from the perspective of a learner is “to engage with, act on, and reflect on the feedback” (p. 208). The experiences of participants in this study highlight that the WCF performed a role very similar to the one Lee proposes, which in this case study results in WCF being better conceptualised as a stimulus for interactions rather than the tool that creates learning in and of itself. Furthermore, with the high number of CKPs identified by participants, it is difficult to see the potential benefits of WCF being inhibited due to the unfocussed nature of the feedback—a finding that contradicts earlier cognitive based studies such as Bitchener and Knoch (2009b) and Ellis et al. (2008). It needs to be noted that in the aforementioned studies the WCF was processed individually, and this finding may be due to the additional resources available to learners through collaboration.

Secondly, both pairs showed that the type of knowledge created in these interactions was very different from the cognitively based studies that have argued that WCF is most beneficial when it is focussed and addresses simple
rule-based linguistic items (for example Bitchener, Young & Cameron, 2005; Ferris, 1999). Both pairs identified CKPs concerned with a wide range of linguistic knowledge, for example idiosyncratic knowledge such as the appropriate preposition to accompany a certain lexis, and communicative solutions to find clearer ways to express themselves. The only significant difference between the pairs when considering the type of knowledge that was co-constructed is found when the direct WCF is analysed in isolation. When processing the example answers, Carol and Kazue predominately identified CKPs concerned with clearer ways to express themselves, whereas Natsuko and Yumi predominately identified CKPs concerned with the development of yet-to-be-mastered lexis or the meaning of new lexis. This seems to be due to them finding the example answers challenging to understand, and thus reducing the ability to learn from the communicative solutions the feedback offered.

There was a similar number of CKPs identified from both types of feedback, with direct WCF in the form of an example answer generating slightly more CKPs. With the provision of individualised WCF for learners’ writing having been reported as time-consuming (I. Lee, 2008b, 2014), this is a finding with potentially significant pedagogical implications, revealing that an example answer for multiple pairs in a class may be just as beneficial as individualised WCF. However, as noted above, the type of knowledge constructed differed for each pair, suggesting that the language level of learners influences exactly how the direct WCF is beneficial. Both pairs showed that the activity system was not static throughout the course of the study. Participants continually allowed for aspects of the activity system to be revised as they adapted to or changed aspects of the activity. Natsuko and Yumi experienced a significant shift in the tools they were prepared to utilise, as usage of their dominant language and object-regulation continually increased. For Carol and Kazue, the most significant shift was in the level of mutuality, as Carol progressively placed more value on Kazue’s suggestions as the study progressed. The dynamic nature of the activity system reveals that as learners’ experiences with and understanding of the benefits of collaboratively processing WCF evolve, there is potential for them to gain an understanding of how to enhance the benefits offered by the activity.
With participant experiences showing that they were able to co-construct knowledge while collaboratively processing WCF, I will now turn to the remaining research questions and discuss the factors which impact on the learning potential of collaborative processing WCF in Chapter 6. This is then followed by an investigation into how participants utilised what they learnt in new writing and speaking tasks in Chapter 7.
Chapter 6: Factors impacting the learning potential of WCF

This chapter builds on the findings presented in Chapters 4 and 5 and seeks to illuminate and discuss the factors influencing the collaborative processing of written corrective feedback (WCF) in both helpful and less helpful ways. By doing so, this chapter aims to answer the second research question, which was to investigate the factors which impact the learning potential of collaboratively processing WCF. The chapter also draws on the insights participants provided in their retrospective interviews to help develop an understanding of why participants approached the activity in the manner they did. Gaining a further understanding of why helps to understand the factors impacting the learning potential of WCF on a deeper level and, I argue, offers a stronger contribution to our understanding of the learning potential of WCF.

Through the lens of activity theory (AT), it appears that all aspects of the activity system impact the learning potential of WCF. Aspects such as the experiences of a participant up until the moment the feedback session began, their language learning goals, language learning beliefs, and which tools are available are a few examples of the factors that influence the activity system. Despite the complexity of these factors interacting in a multi-directional manner in the activity system of each participant, key aspects emerged. These are: tools and the use of an inanimate expert (6.1), tools and the use of an additional language (6.2); community and who is the expert (6.3); object and related desired outcomes (6.4); and division of labour and the level of mutuality (6.5).

This chapter mainly draws on data from the retrospective interviews and only utilises data from the feedback session on a few occasions. When presenting excerpts from the retrospective interviews, turn numbers have not been indicated, as what participants stated is not referred back to in the analytical manner required in Chapters 4 and 5. However, all other transcription rules from the feedback sessions have been used.
6.1 Tools: The inanimate expert

The experiences of both pairs described in Chapters 4 and 5 illustrated that the usage, and at times non-usage, of an inanimate expert influenced the learning potential of collaboratively processing WCF. This section first discusses the participants’ perceptions of the usefulness of an inanimate expert in the form of online literary resources such as dictionaries and translation tools. This is followed by a description of how the tool was utilised and how it impacted the learning for participants as they jointly processed WCF.

In the first feedback session Yumi believed that the use of an inanimate expert was in breach of the expected behaviour of the activity, evidenced when she said “I didn’t realise to be able to use” in her first retrospective interview. Additionally, Yumi also believed that use of the tool did not provide optimal language learning strategies, explaining, “maybe, ah, it is better to help each other (rather than use a dictionary)” (Yumi, Retrospective Interview 1). Despite this perception, Yumi’s usage of an inanimate expert increased as the study progressed. However, there appears to have been only a minor shift in her perception of the usefulness of the tool. This was explicated in her second retrospective interview:

Nicholas: …was that (dictionary usage) helpful?
Yumi: yes (said hesitantly), mm, yes
Nicholas: or you prefer no dictionary
Yumi: actually I prefer no dictionary yeah

(Yumi, Retrospective Interview 2)

Yumi’s comments indicate a tension between her beliefs regarding optimal language learning strategies and the tools available to her. She hesitantly acknowledged an inanimate expert assisted her on some occasions—a perception validated by some of her interactions with Natsuko (for example see interaction H1 in Appendix 6) and nine of her 25 CKPs involving the use of an inanimate expert. However, this went against what she believed was an ideal approach to the activity.
Upon reflection of the first feedback session, Natsuko stated that she refrained from utilising an inanimate expert because she felt “tsukawanai hō ga ī to omoimashita [I thought it was better to not use a dictionary]” and “tsukawanaide yaru mono to omoimashita [I thought the activity was to be performed without a dictionary]” (Natsuko, Retrospective Interview 1). However, she appeared to have experienced a significant change in this view. When reflecting on this change, she commented, “(no matter) how much I thinking…never come up with (that solution)…so that’s why using internet and dictionary is so helpful” (Natsuko, Retrospective Interview 2). Natsuko’s opinion is evidenced in her interactions with Yumi (for examples see excerpts 5.7 and 5.8) and an inanimate expert being involved in 12 of the 30 CKPs she identified.

Natsuko and Yumi were never advised that an inanimate expert was not to be used when explaining the activity to them before the first feedback session. It seems they presumed this was the case due to previous learning experiences and beliefs. It took very clear and explicit instructions in the second feedback session explaining that such resources were permitted for them to revise the rules of the activity and use the tool. In a similar manner to Natsuko and Yumi, Carol and Kazue also did not utilise an inanimate expert in the first feedback session. While Carol was not able to definitively state that she believed the expected behaviour disallowed its usage, there is evidence that this was the case when she specifically asked the researcher for permission to use her smartphone to access a dictionary in feedback session 2 (see turn 168 of interaction B13 in Appendix 6). After this confirmation, Carol freely utilised literary resources accessed via her smartphone for the remainder of the study without feeling the need to request permission.

Kazue, however, had very different reasons for not utilising an inanimate expert. It needs to be noted that Kazue did not personally use an inanimate expert in any of the four feedback sessions (nevertheless, she did look on and participate by reading what was displayed on Carol’s smartphone on two occasions during feedback session 3). Furthermore, it should be noted that in this case study, an inanimate expert was only available via participants’ personal smartphones. Kazue’s comments include:
I prefer using the dictionary made of paper. So, I may have been reluctant to use it... when I study with pairs, I do not necessarily need to use it because Carol may tell me answer... Therefore, I did not wonder if I can use it or not... of course, dictionary is useful tool for study but in my view, it is suitable when studying alone. I prefer asking friends when studying in pairs.

(Kazue, Member Checking)

As Kazue’s comments display, her non-utilisation of an inanimate expert was not concerned with the expected behaviour of the activity, but largely due to her own preferences. Carol had a similar view to Kazue in that she felt a dictionary is best utilised when studying alone but was beneficial in the context of this study as it helped her manage unknown lexis when processing the example answer. Her comments included: “it’s (online resources) helpful to learn whenever I am study by myself... it’s a great idea to deal with new words (when processing example answers)” (Carol, Member Checking). Carol and Kazue’s preference to utilise other-regulation over object-regulation is reflected in only seven of Carol’s 33 and five of Kazue’s 27 CKPs involving the use of an inanimate expert.

Participant comments show how the perceived usefulness of an inanimate expert and its potential role in collaboratively processing WCF varied according to each participant. At the beginning of the study the tool was not utilised, and as such, any potential influence the tool may have on the activity was not exerted. After the tool was introduced into the activity, participant perceptions and skills at using the tool then influenced the benefits the tool could offer participants as they collaboratively processed WCF. For example, Kazue’s preference to not utilise online tools resulted in a missed opportunity for learning (see excerpt 4.9 in Chapter 4). Another example illustrating the role the tool is perceived to play was evidenced when Yumi utilised the audio functions of an online dictionary to correct her pronunciation of previously unknown lexis (see excerpt 5.9 in Chapter 5). In contrast to Yumi, Carol either did not know how to utilise this function or did not perceive it as a role the tool could play when she was not able to notice and correct her inaccurate pronunciation of the lexis negligible (see excerpt 4.4 in Chapter 4).
The function fulfilled by an inanimate expert varied according to the type of feedback. When processing direct WCF in the form of an example answer, both dyads utilised an inanimate expert in the form of a dictionary or translation software to assist with the processing of unknown lexis. When processing indirect WCF, the role played by an inanimate expert differed when compared to direct WCF for both dyads. Carol and Kazue utilised online resources to confirm: letter formatting conventions; metalinguistic knowledge of lexis (specifically finding a lexical item’s part of speech to enable correct usage within a sentence); and collocations to accompany certain lexis. While the nature of the tasks meant Natsuko and Kazue would not require an inanimate expert for letter formatting conventions, they also utilised online resources for priming or creating metalinguistic knowledge of lexis. However, what did differ for Natsuko and Yumi was the use of online resources to find an English equivalent for solutions they had found using Japanese. This illustrates that the other tools available to learners also influence how an inanimate expert will be utilised, with this strategy not available to Carol and Kazue as they did not share an additional language outside of the target language English.

The emerging picture is that the utilisation, or non-utilisation, of an inanimate expert when collaboratively processing WCF impacts its learning potential. Collectively, there were 19 instances of an inanimate expert increasing the learning potential of the WCF by acting as an additional resource when a solution was not reached via collaborative dialogue and private speech for one or both members of a pair (please note, one instance of an inanimate expert usage being beneficial sometimes resulted in two CKPs due to both participants identifying the same CKP). In conjunction with this, there were four instances in which the non-utilisation or failure to fully exploit the affordances of an inanimate expert appeared to limit the learning potential of the WCF (see excerpts 4.4 and 4.9 in Chapter 4 and 5.3 in Chapter 5, and interaction F4 in Appendix 6). Furthermore, there was one instance of an inanimate expert having an unhelpful influence on learning potential when it provided an incorrect solution (see turn 26 of interaction C3 in Appendix 6). These experiences corroborate Kuuti’s (1996) argument that a tool is “both enabling and limiting” (p. 27). Exploring Kuuti’s argument further, Foot (2014) uses the analogy of a camera lens, with the lens
being enabling in that it allows a particular type of photo to be taken, but limiting in that the use of the lens itself causes other parts of the picture to not be captured. If we apply this to the collaborative processing of WCF, whenever the tool of an inanimate expert is utilised the direction of the interaction between interlocutors is set on a course that may have been different, had the tool not been used. Therefore, while there were several instances of an inanimate expert benefiting participants processing of WCF, there is no way of knowing how the interaction would have progressed without the tool, and whether or not that unrealised direction of the interaction would have been a preferable outcome or not. Over the course of this study, Natsuko and Yumi increased their usage of an inanimate expert and reduced the usage of other-regulation to deal with unknown lexis, thus reducing the number of opportunities for one of them to act as the teacher. Allwright’s (1984) contention that the role of teacher is beneficial due to it assisting learners to further clarify representations of their knowledge was corroborated when Natsuko stated “I also thinking, thinking about this word (state) so it’s also help me” (Natsuko, Retrospective Interview 1). Therefore, with the opportunities for either Natsuko or Yumi to act as the teacher reducing due to increased object-regulation, there may have been cases when an inanimate expert limited the learning potential for one of them. Carol and Kazue continued to utilise other-regulation as much as possible, and thus appear to not have limited opportunities for one of them to act as the teacher due to the introduction of an inanimate expert into the activity. This suggests that Natsuko and Yumi would benefit from some guidance in how to use the tool in a manner that does not limit such opportunities for learning.

The use of an inanimate expert should not be conceived as a simple unidirectional relationship between the participants, tools and the object. Participant experiences have highlighted that it is a multi-directional relationship between all aspects of the activity system. Firstly, participants’ experiences illustrated that the rules they place on the activity and their beliefs concerning optimal language learning strategies may result in the tool not being utilised. Secondly, the multi-directional relationship between tools and participants was evidenced with participants utilising the inanimate expert for further assistance, and then in combination with further collaborative dialogue and private speech,
they primed or created knowledge. This primed or newly created knowledge in turn developed participants’ knowledge of English (the symbolic outcome of the activity), which enabled them to act on the object of the activity in new ways. Additionally, the skills a learner possesses in utilising the inanimate expert also impact the potential benefits offered by the tool, with Kazue not feeling competent with online resources. The community also influenced the ability of a participant to effectively utilise the affordances offered by the inanimate expert—evidenced when Kazue positively affected Carol’s interaction with the inanimate expert in feedback session 3. Natsuko and Yumi’s experiences also showed how the availability of an additional symbolic tool in the form of an additional language in which to mediate thinking influenced how an inanimate expert could be utilised, and thus the potential learning benefits it may provide. And finally, the objectified outcome of the activity also influenced the function of the inanimate expert, whose usage varied according to whether direct WCF in the form of an example answer or indirect WCF was being processed.

This section has discussed participants’ perceptions of an inanimate expert and its impact on the learning potential of the collaborative processing of WCF. Overall, in this case study, the influence of an inanimate expert was found to be beneficial not only from the perspective of participants, but also evidenced in the knowledge they were able to co-construct through utilisation of the tool. However, the influence of an inanimate expert cannot be conceptualised as unidirectional or as either beneficial or unhelpful. Rather, it is a dynamic interdependent relationship between all other aspects of the activity system, which is both empowering and restricting at the same time. In the extant literature that examines collaboratively processing WCF and any ensuing co-constructed knowledge, the use of an inanimate expert during feedback processing is not mentioned (see Tocalli-Beller & Swain, 2005; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002). In Adams (2003), its usage was forbidden during text construction and only an exit survey enquired if one had been utilised, without any further discussion of its impact. This study has illuminated and discussed how an inanimate expert was used to both benefit, and at times limit, the activity; the functions it was used for; participants’ perception of its usefulness, and its impact on the learning potential of collaboratively processing WCF. These
insights are argued to extend our knowledge of the collaborative processing of WCF.

6.2 Tools: An additional shared language

This section first discusses the value participants placed on the availability of a shared additional language to utilise during the activity. This is followed by a discussion on how Natsuko and Yumi’s perception of the tool was revised as the study progressed, how they utilised their dominant language, and how its usage impacted the learning potential of the activity.

With Carol and Kazue not sharing a language outside of the target language English, they were not able to utilise an additional language to discuss responses to the WCF with each other. Furthermore, there was no evidence of their dominant languages being used in overt private speech throughout the four feedback sessions. However, as discussed in 4.2, this is not to say that they were not utilising their dominant language in sub-vocal private speech. While a discussion on how the usage of an additional language would have impacted the learning potential of WCF for Carol and Kazue is not possible, their retrospective interviews did provide insights into whether or not they perceived such a tool as beneficial and if they would have allowed it to be used.

In her first retrospective interview, Kazue stated that she experienced moments throughout the study during which she wanted to speak in Japanese. Carol, on the other hand, had a different view regarding dominant language usage. While watching the video-recording of the first feedback session, Carol expressed her disappointment with how she and Kazue had responded to an instance of indirect WCF and went on to say “… I know something wrong, but … I cannot speak out… actually in Vietnamese I can describe very (laughs) fluently but in English ah it make me stop (laughs)” (Carol, Retrospective Interview 1). Carol appeared to be acknowledging that mediating her response to the WCF in English was restricted when compared to mediating it in Vietnamese, thus implying she may have seen some benefit in non-target language usage. However, Carol’s beliefs around optimal language learning strategies indicate that even if Kazue did speak Vietnamese, she would have preferred to continue to
only utilise English only. When asked if she thought it would have been beneficial to have been able to use Vietnamese, Carol responded:

no I don’t think so, ah, I think a better way to learn English is with a partner who can’t speak Vietnamese

(Carol, Member Checking)

Kazue and Carol’s reflections in their retrospective interviews imply that had a dominant non-target language been shared, Kazue would have allowed its usage, while Carol would not. The difference in the rules they place on the activity appear to be influenced by their previous language learning. Carol experienced her English language education in Vietnam in the 1990s, a period in which an English-only approach was widespread (Anh, 2010). Therefore, it is highly likely that these experiences are interacting with her current language learning. Conversely, Kazue’s previous language learning experiences were characterised by the grammar-translation method and it seems this is interacting with her current language learning, allowing her to see a role for non-target language usage. It should be noted, however, that Carol accessed an inanimate expert via her dominant language in feedback session 2 when she successfully resolved her questions concerning unknown lexis. Therefore, despite her perception, her dominant language appears to have played a role in assisting her to benefit from the direct WCF. Carol and Kazue’s perceptions of non-target language usage corroborate Engeström’s (2001) notion that any individual is a part of multiple activity systems which interact and influence each other.

As described in Chapter 5, Natsuko and Yumi shared an additional language outside of the target language English—their dominant language, Japanese. Natsuko and Yumi’s perception of dominant language usage changed over the course of the four feedback sessions. As noted in 5.1.1, Natsuko expressed a preference for a target language-only learning environment before this study began. She confirmed this in her first retrospective interview when she stated, “I prefer no Japanese…always in my English class I’m, I’m try to don’t use Japanese”. Yumi expressed similar feelings in her second retrospective interview when she explains why she refrained from using Japanese in the first feedback session: “at first time I thought it is not good to use Japanese, so that’s why I, I didn’t use”. In a similar manner to Carol and Kazue, other activity
systems are interacting with the rules they place on collaboratively processing WCF, as their previous learning experiences appear to be influencing their beliefs concerning optimal language learning strategies. The underlying theme within English education in Japan that using only English is optimal is reflected in Ministry of Education, Culture, Sports, Science and Technology (MEXT) documents. In its revised course of study for English language education, MEXT stipulate that English classes at high school are to be conducted primarily in English only (Tahira, 2012). These directions are in contradiction to the experiences of Natsuko and Yumi described in sections 5.1.1 and 5.1.2. A common phenomenon in Japan is that while there is the belief that only target language usage is ideal, it is rarely realised in practice in junior and senior high schools (Miyazato, 2009). My own experience of close to 15 years of teaching English in Japan, which began in the early 2000s, leads me to argue that what Miyazato reports is very common. Furthermore, my own observations lead me to argue this belief is further engrained in Japanese language learners as language institutions capitalise on this by advertising their classes as English only—often insinuating that they can deliver what junior and high school English classes cannot.

The development of utilising Japanese for Natsuko and Yumi followed a similar path to that of using an inanimate expert. As illustrated when describing Natsuko and Yumi’s experiences in Chapter 5, only one word of Japanese, which was overt private speech, was used on the interpersonal plane in the first feedback session. After being reminded that Japanese usage was permitted at the beginning of the second feedback session, they allowed some Japanese to be introduced into the activity—with it increasing as the study progressed until it eventually became the dominant symbolic tool used to process the WCF in feedback session 4. Natsuko indicates that she experienced a significant shift in the value she places on this tool, as she explains:

Nicholas: … was this (the increased Japanese usage) helpful?
Natsuko: so helpful (said emphatically) yeah because our English level was same I think so, mm, when I, when we thinking
about correct English that’s better, ah, use Japanese, speaking Japanese is so easier and so forth.

(Natsuko, Retrospective Interview 2)

While Yumi appears to have also experienced some shift in her perception of Japanese usage, her comments indicate it was less of a shift when compared to Natsuko. Her comments include:

Nicholas: …how do you feel about Japanese, being able to use Japanese with your partner?

Yumi: …ah you (Nicholas) said use Japanese is okay so we start to speak Japanese and ah Japanese, speaking Japanese is easy to understand each other but if we speak English only it is good practice for us

(Yumi, Retrospective Interview 2)

Yumi’s comments indicate while she acknowledges Japanese was at times convenient, she still held on to her belief that usage of the target language only was an optimal language learning strategy. Attempts to attribute dominant language usage to a definitive beneficial or unhelpful, dichotomous-type relationship with collaboratively processing WCF becomes problematic. This is due to Natsuko and Yumi’s experiences corroborating Kuuti’s (1996, p. 27) argument that a tool is both “both enabling and limiting”. Natsuko and Yumi’s interactions during the feedback sessions indicate several instances of them benefiting from mediating their processing of WCF in Japanese. Examples of how Japanese benefited the activity include when it: a) acts as a resource to explain lexis to their partner (for example see excerpt 5.5); b) acts as a means to access an inanimate expert (for example excerpt 5.7 and interaction H3 in Appendix 6); c) facilitates analysis of the grammatical features of sentences in the example answer (for example see excerpt 5.6); d) facilitates explanation of the meaning of sentences in the example answer by interpreting them into Japanese (for example see excerpt 5.10); e) facilitates discussion of the grammatical accuracy of suggested responses to the WCF (for example see excerpt 5.8); f) and assists in finding a solution to indirect WCF in Japanese before searching for an English equivalent (for example see excerpt 5.7). These findings are similar, but
not identical, to the functions the dominant language has played in other studies that investigated dominant language usage in pair work (for example Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Swain & Lapkin, 2000). In addition to finding Japanese useful for mediating the processing of WCF, Natsuko also found the use of Japanese assisted with mediation of her emotions, with the use of Japanese assisting her to alleviate feelings of frustration. This is evidenced by her comments:

Nicholas: …in the first one (interview) you said you felt a little bit ‘arr’ (gesturing frustration) …the second time (collaborative writing task two), did you feel the same feeling?
Natsuko: ah, I felt better actually, because I, I was getting used to pair, working together and, in addition I spoke Japanese when we thinking
Nicholas: so speaking in Japanese helped reduce some of that feeling?
Natsuko: yeah, yeah

(Natsuko, Retrospective Interview 2)

Natsuko stated that the amount of indirect WCF the first collaborative writing task received made her feel her English was “so terrible” (Natsuko, Retrospective Interview 1). Swain et al. (2011, p. 85) argue that while causality is difficult to evidence, it is reasonable to assume that if one is made to feel linguistically incompetent, the individual is less likely to trust their own self-regulation. Furthermore, Moran and John-Steiner (2003) argue that our perception of ourselves in a social environment impacts on how we can respond to the possibilities within it. Based on these arguments, it is likely the learning opportunities for Natsuko would have been reduced in feedback session 1 due to the feedback causing her to feel linguistically incompetent. However, as her comments illustrate, the additional tool of Japanese helped to alleviate these feelings due to it being the medium to share her thoughts on how to respond to the WCF, and increased the learning potential of the WCF. This is an important factor to consider as some studies into WCF have reported instances of it causing learners to experience negative feelings (I. Lee, 2008a; Mahfoodh, 2017; Semke,
1984; Zheng & Yu, 2018). Without denying the positive impact the use of Japanese had on the learning potential of WCF for Natsuko and Yumi, the use of Japanese steadily increased over the course of the study, resulting in unknown lexis being discussed in Japanese rather than English. While this is not necessarily a limitation of learning, it does, however, limit the opportunity to use synonyms in the target language to explain unknown lexis, which was a process Kazue described as beneficial for her own language learning. Therefore, it may be argued that when the dominant language began to be used more frequently, it was also limiting the learning potential of collaboratively processing WCF for Natsuko and Yumi.

The usage of an additional language while collaboratively processing WCF was not a unidirectional relationship between participants, the tools and the object. The perception of its usefulness was interacting with other activity systems—some of which were inactive but influenced participant beliefs surrounding optimal language learning strategies. The perceptions held by participants suggest that learners may be hesitant to utilise the tool and may need some encouragement and guidance to understand the benefits of non-target language usage. Furthermore, it could be argued that if responses to the WCF had been discussed in English rather than Japanese, the resulting dialogue may have created additional opportunities for learning. Therefore, while usage of the dominant language when processing WCF showed several instances of it of increasing the learning potential of WCF, the potential restrictions it places on learning should not be ignored.

Within the context of the collaborative processing of WCF, dominant language use has been an under-researched area. While both English (the non-target language) and French (the target language) are utilised in participants’ interactions in Swain and Lapkin (1998, 2002) and Tocalli-Beller and Swain (2005), there is no discussion on what role the dominant language played and how its usage may have impacted the leaning potential of the reformulations they discussed in pairs. This study extends our knowledge of the learning potential of the collaborative processing of WCF by illuminating the functions the dominant language played when processing indirect WCF and direct WCF in the form of an example answer. When processing indirect WCF, the dominant language was
mainly used to identify what the grammatical error was, and to formulate responses to both grammatical and content-level feedback. When processing direct WCF in the form of an example answer, the dominant language was mainly used to explain individual lexical items, discuss the meaning of whole sentences, and to analyse the grammatical features of a sentence. Common to both forms of WCF was the dominant language guiding the activity and being the vehicle by which an inanimate expert was accessed. For one participant, the dominant language was reported as assisting her to reduce feelings of frustration and disappointment she felt concerning the amount of feedback. Natsuko and Yumi’s usage of the dominant language increased as the study progressed, whereas the difficulty of tasks did not increase as this study progressed. Therefore, the increased usage cannot be attributed to an increase in the level of difficulty participants experienced. Rather, it appears to be due to a combination of participants becoming more familiar with each other, more accustomed to using the dominant language in studying English, and the shift in their perception of the tool’s benefits.

6.3 Community: Who is the expert?

This section discusses the influence the community exerted on the learning potential of the activity. As discussed in Chapter 4, there were interactions in Carol and Kazue’s fourth feedback session which displayed evidence that I, the teacher/researcher, was not positioned as the expert within the community of the activity system all three of us were participating in. As this section will illustrate, this then influenced the learning potential of the WCF.

Early on in the feedback session, Kazue indicated that she positions Carol, rather than the teacher, as the expert concerning medical letters of referral. As discussed in 4.8, rather than accepting some features of the example answer, she first referred two instances of feedback to Carol to confirm whether they were standard practice in a doctor’s letter of referral (see excerpt 4.11). The specific instances of feedback Kazue confirmed with Carol were the letter-writing convention of using a comma after the patient’s name in the subject line of the letter, and the task strategy of expressing gratitude in opening of the letter. Later
in the feedback session, Carol then noted her surprise at the past continuous tense being used in the following sentence:

Prior to being admitted to our hospital, the patient was not able to eat properly and was feeling a lot of pain in her stomach.

(Carol and Kazue, Direct WCF, Collaborative Writing Task 2)

Carol explained to Kazue that in her experience, which included her now inactive Occupational English Test (OET) study group and current volunteer work at a medical clinic, such tense usage was not common practice. Carol’s comments to Kazue include:

Excerpt 6.1

55 Carol: I mean in the, in the referral letter because, ah, normally I use past tense, or past, ah, present perfect or present tense, present simple tense, so I, I, I rarely use this kind of

56 Kazue: ah, okay

57 Carol: but, was feeling a lot of pain in her stomach (reading example answer), that mean, hmm

58 Kazue: so, it’s good to describe the length of the

59 Carol: yeah, I under(stand that), I don’t understand when we use the past continuous tense in the, in referral letter (makes a note in her own notebook] okay

(Carol & Kazue, Feedback Session 4)

Carol makes it clear in turn 59 that she understood the feedback but is confused as to why the tense was used in a medical letter of referral. When discussing this issue retrospectively, Carol commented:

…if it’s related to my job, I know everything about it, it’s grammatically it’s fine but, uh, something wrong with the content I will ignore that…

(Carol, Member Checking)

In the above comments, Carol appeared to be stating that the language teacher would not be afforded the status of expert in regard to issues related to her professional practice. Therefore, any WCF that she perceived as encroaching on
this territory was rejected. It is not surprising then, that Carol did not identify any learning as deriving from this instance of WCF nor did she attempt to utilise the past continuous tense in any of her subsequent individual writing and speaking tasks. As already noted, Kazue positioned Carol with the status of expert when she referred instances of WCF to her before accepting them as valuable. While causality is difficult to prove (Swain et al., 2011), it appears that Carol’s role as expert in this feedback session influenced which instances of WCF Kazue placed value on, and as such any subsequent learning. Moreover, Kazue did not identify the use of the past continuous as a CKP, nor did she attempt to use it in her subsequent writing and speaking tasks. However, the other two instances of WCF that were referred to and approved by Carol—the use of a comma in the subject line and the task strategy of expressing gratitude in opening of the letter—were not only identified by as CKPs but also used by Kazue in her individual output. It should be noted that this change in expert did not extend to all aspects of the feedback. Both Carol and Kazue identified several less genre-specific CKPs deriving from the feedback session.

The experiences of Carol and Kazue indicate that the status the provider of the WCF holds has an impact on its learning potential. In this study, I was not afforded the status of being able to comment on certain aspects of a doctor’s letter of referral, and as such any potential learning related to these instances of WCF was significantly reduced. This relationship should not be considered as merely part of the community within the activity system. For Carol, it was her other interrelated activity systems—her current work experience and previous OET study group—which most likely helped to form not only her belief regarding appropriate tense usage for the writing task, but also her position as the expert in this situation. For Kazue, Carol appears to be the most experienced and knowledgeable person regarding the OET medical test and the only medical practitioner (albeit voluntarily) within her English-speaking community. Therefore, Kazue held Carol’s expertise in higher regard than that of the teacher’s for some aspects of a medical letter of referral. It needs to be noted that rejection of WCF does not necessarily result in no learning (Storch & Wigglesworth, 2010). However, I argue that if the provider is not afforded the role of expert in certain aspects of the task, then the feedback provided loses some of its learning
potential. Carol and Kazue’s experiences both corroborate and extend G. Lee and Schallert’s (2008) study, which found WCF to provide few, if any, benefits when the learner did not trust their English teacher’s linguistic expertise. This study extends this notion beyond language expertise and highlights the importance of acknowledging a learner’s expertise with some subject knowledge.

This section discussed the influence the community can have on the learning potential of WCF, a finding that adds to our knowledge of this topic. Previous studies on WCF in a SCT framework have identified the following factors as reducing the learning potential of WCF: learner’s goals, dissatisfaction with the feedback, learner’s beliefs about language use (Storch & Wigglesworth, 2010), the feedback contradicting internalised rules (Storch & Wigglesworth, 2010; Swain & Lapkin, 2002), and the feedback being judged as changing learners’ intended meaning (Swain & Lapkin, 2002). Participant experiences in this study highlight how the community and content areas where the teacher is afforded permission to take on the role of expert also impacts the learning potential of WCF. In this case—an OET medical exam—such a phenomenon may seem rather obvious; however, my own TESOL experiences often included teaching English to learners who were majoring in fields which I was not an expert in. This study highlights that failure for teachers to relinquish the role of expert in certain areas of writing can decrease the learning potential of WCF due to learners dismissing certain instances of WCF made by the teacher. Actively encouraging learners to be the expert in certain content areas of their writing may help them to feel their identity as an expert has been acknowledged. Moran and John-Steiner (2003) contend that perceptions of oneself in a social environment impact how we can respond to the possibilities within it. Therefore, active acknowledgement of learners’ expertise may help foster a positive attitude towards their language learning and assist learners to more fully utilise the opportunities for learning an instance WCF affords. A further potential benefit is that learners may start to view the teacher as a collaborator rather than an assessor.
6.4 Object: Related desired outcomes

This section discusses the influence participants’ desired outcomes and the outcomes’ expected behaviour had on the learning potential of WCF. Desired outcomes in this case study refers to the respective language tests participants planned on taking. The expected behaviour refers to the task requirements and test-taking strategies relate to performing writing tasks in these language exams. Natsuko and Yumi’s desired outcomes were not linked to achieving a particular score on a formal examination and this influence was not present in their respective activity systems. However, both Carol and Kazue’s desired outcomes were concerned with language tests they were planning to take after participation in this study. Kazue’s goals were to attain an overall score of 7.5 on the International English Language Testing System (IELTS) Academic exam, and Carol’s were to pass the OET medical exam. These desired outcomes influenced the expected behaviour, or rules, of the activity system and in turn, how participants responded to instances of WCF. The influence this had on their responses to the feedback then influenced the learning potential the feedback offered.

Kazue showed evidence of this relationship in feedback session 1, when she and Carol were processing indirect WCF provided for a writing task based on the first writing task of an IELTS Academic exam. They received the following content feedback due to the response not meeting the minimum word count of 150 words:

The response is 100 words. Can you add more information?

(Carol & Kazue, Collaborative Writing Task 1)

There was no evidence of Carol taking up this instance of WCF. Kazue, however, displayed a strong desire to respond to it. Of the 10 occasions Carol rejected Kazue’s suggestions in the first feedback session, this was the only instance of WCF when she made further attempts to convince Carol of the appropriateness of her suggestion. Relevant excerpts from the interactions are as follows:
Excerpt 6.2

119 Carol: |and ah on the other hand|
120 Kazue: |and it decreased|
121 Carol: no, no (shaking her head) I think we should, skip, yeah just ah quickly move to coal …
122 Kazue: but ah we, we need to describe about the decrease (of wood usage)
123 Carol: I think it doesn’t matter, if we can have a conclusion
124 Kazue: hmm

…

207 Kazue: …maybe I, ah, I need to write here, hmm, (returning back to her argument that more information was required in the second paragraph) about the more information about wood because we all, ah, described about the other energy sources change so we need to say ah, the wood |decreased|
208 Carol: |yeah or we | should use the information here (pointing to the conclusion)
209 Kazue: but it’s conclusion
210 Carol: I think it’s alright because we, I think we, we needn’t, we needn’t describe all the information here we choose the important things and we can put in in the conclusions as well

…

213 Kazue: so we have, need to write, if we are going to write 150 words
214 Carol: yep
215 Kazue: we write |more|
216 Carol: |add more|
217 Kazue: so we need, had better put more information
218 Carol: mm mm mm
After Kazue’s suggestion is rejected by Carol in turn 120, she soon actively turns her attention to participating in the processing of subsequent instances of WCF. However, Kazue then decides to bring the issue to Carol’s attention once again in turn 207. After a second rejection in turns 208 to 210, Kazue uses the minimum word requirements as the basis for explaining why she feels more detail is needed in the second paragraph. It is not possible to definitively state whether or not Carol had simply not noticed this instance of WCF or decided to ignore it due to these task requirements not being directly linked with her own desired outcome. However, there is evidence that Kazue placed much importance on this instance of WCF because this was the only instance of her persisting with one of her suggestions in the face of rejection. Therefore, for Kazue, there appeared to be a strong link between her desired outcome of attaining 7.5 on the IELTS exam and her desire to respond to WCF that encouraged her to fulfil the requirements of the IELTS writing task.

Carol also displayed evidence of her desired outcome and task requirements influencing her approach to responding to the WCF. In the third feedback session, Carol and Kazue discussed the following sentence, which was highlighted in orange to indicate the sentence contained grammatical errors:

She presented the first time on 15th April due to stomache which caused her indigestion.

The relevant section of interaction which resulted is as follows:

Excerpt 6.3

39 Kazue: for the first time (low volume no eye contact) (5 seconds) or take away (delete)?
40 Carol: you want to
41 Kazue: she presented on [smiling]
42 Carol: mm, yeah, |maybe, or |
43 Kazue: |because, I, I, | don’t need it, this information anyway
Carol: yes or we can change to another sentence because I’m afraid it’s not enough (words) ahh
(Carl & Kazue, Feedback Session 3)

Kazue suggests that because the information is technically superfluous, one solution would be to not include the phrase in the revised draft. However, in turn 43 Carol expresses concern over this, stating that she is worried that the letter may not meet word length requirements. Further evidence of a link between desired outcome and the uptake of WCF arose in feedback session 4. While discussing the example answer, Carol noticed the length of the answer and asked the teacher/researcher if their co-constructed text met the minimum word requirements (see interaction D16 in Appendix 6). Carol and Kazue only showed evidence of task requirements influencing how WCF was responded to when the task was directly linked to their desired outcome.

Carol’s experiences also indicated that the desired outcome and expected behaviour, in the form of test taking strategies, influenced how WCF was responded to—which in this case limited its learning potential. In Draft 1 of the second collaborative writing task, Carol and Kazue received the following feedback:

*Is there a better way to express "found no interest in food"?*

She found no interest in food and moreover she vomited twice.

This then prompted the following interaction:

Excerpt 6.4

142 Kazue: is there a better way to express found no interest in food (reading WCF)
143 Carol: mmm
144 Kazue: loss of appetite? she experience loss of appetite?
145 Carol: or yeah, I think we can, ah, reason, reasoning this weight loss because, ah she, she got no interest in food.
146 Kazue: because of the
147 Carol: ah, we can put since (writes since on Draft 1; starts writing on Draft 2 paper)
Kazue: since, since her loss of appetite, since? because of?
since she had no interest in food (reading Carol’s proposed solution) ah okay (nods approvingly)
(Carl & Kazue, Feedback Session 3)

As the above interaction highlights, Carol rejected Kazue’s attempts to initiate a change to the more appropriate phrase loss of appetite. In her post-interview, Carol explained that this was not because she disparaged the suggestion, but rather she believed that because the case notes provided for the task used the expression loss of appetite, she would have to paraphrase it to be awarded a higher score on the OET Medical Exam. Carol explicated this as follows:

…in the case note(s) they already give you, give me the information about loss of appetite. I think this was, this phrase (loss of appetite), is better but I didn’t want to use that because I feel like if I repeat the case note… the marking going down.

(Carol, Retrospective Interview 2)

Carol’s experiences suggest perceived expectations of the task influenced how she responded to the WCF. In this case, the perception that OET examinees are expected to paraphrase the medical notes contained in the task instructions caused Carol to reject Kazue’s correct suggestions. This in turn influenced the learning potential of the WCF, as it deprived Carol of the opportunity to further consolidate her ability to use the phrase loss of appetite—potentially in a novel manner for her. This appears to be a result of other activity systems interacting with the activity of processing WCF with Kazue. Some of Carol’s inter-related activity systems are her currently inactive OET study group and her own OET private study. The expected behaviour of these activity systems regarding strategies to ensure a high score appear to have influenced how she responded to the WCF, with its learning potential limited by the perception that it would break the rules of the OET test.

This section has discussed how the desired outcome, and any expected behaviour related to it, influenced the learning potential of the collaborative processing of WCF. The extant literature has identified that learner goals, in
terms of whether or not they aim to improve the grammatical accuracy of a text (Storch & Wigglesworth, 2010) or the importance a learner places on grammatical accuracy (Hyland, 1998, 2003), impact on the learning potential of WCF. This study expands these findings to illustrate desired outcomes and their expected behaviour also influence the learning potential of WCF. Kazue and Carol’s experiences illustrate examples of these aspects of the activity system influencing a learner’s desire to uptake an instance of feedback, and also their approach to finding resolutions to instances of WCF. In this case study, this influence showed the potential to both extend the learning potential of WCF when it increased a learner’s desire to find a solution, and to limit learning when it caused feedback or correct suggestions to be rejected.

6.5 Division of labour: Mutuality—are you listening to me?

A final theme emerging from this study was the influence the division of labour had on the learning potential of the activity. As highlighted throughout Chapters 4 and 5, the main manner in which knowledge was co-constructed was through languaging, which was evident in the form of collaborative dialogue and overt private speech. In fact, of the 115 CKPs identified, only six were not visible on the interpersonal plane. Collaborative dialogue is “dialogue that is knowledge building” and “involves at least two persons who co-construct knowledge that may be new for one or both of them” (Swain et al., 2011, p. 150). Therefore, it is self-evident that a higher frequency of collaborative dialogue during pair/group work results in more opportunities for knowledge to be co-constructed. Analysis of participant experiences indicate that interactions that displayed a high level of mutuality—with mutuality referring to the interest one takes in another member’s suggestions and/or contributions (Damon & Phelps, 1989)—presented participants with more opportunities to engage in collaborative dialogue than those where mutuality was low. In this case study mutuality was displayed by acknowledging a dyad member’s request for assistance, or showing interest in, and then building on, a partner’s suggestion to find a solution. This section will explore interactions that were both successful and unsuccessful in embodying these qualities to illustrate the impact mutuality had on the learning potential of collaboratively processing WCF.
In the following excerpt, there are two examples of participants responding to both direct and indirect requests for assistance with unknown lexis.

Excerpt 6.5

24 Yumi: what mean state? (low volume, no eye contact)
25 Natsuko: like say
26 Yumi: say
27 Natsuko: state, state (low volume, no eye contact)
28 Yumi: state XXXXX (low volume, no eye contact)
29 Natsuko: capable /kæpæbl/ (Natsuko & Yumi, Feedback Session 1)

67 Natsuko: obey ga wakaranai [I don’t know obey] (Natsuko starts to use smartphone)
68 Yumi: shitagu toka janai shitagau [it means obey (Japanese equivalent of obey) obey] (second half at low volume, no eye contact, Yumi also uses smartphone after utterance)
69 Natsuko: shitagu [to obey] (Natsuko & Yumi, Feedback Session 4)

In the above interactions, both direct and indirect requests for assistance are responded to immediately. In turns 24 to 29 of feedback session 1, Natsuko not only answers Yumi’s question but she remains engaged in the interaction as she appears to further clarify her own understanding by repeating the lexis state twice in turn 27. Furthermore, Natsuko does not push the activity forward, but allows Yumi to move on to the next topic of discussion when she is ready in turn 29. In turn 68 of feedback session 4 Natsuko indirectly requests assistance, to which Yumi offers assistance in her next turn. Both participants identified CKPs resulting from these interactions. The impact this has on the learning potential of collaboratively processing WCF is illustrated when comparing these interactions with ones where the level of interest in the questions of one’s partner is low.
In the above interaction, Kazue did not understand the phrase *blood in bowel motions*. She first makes this explicit in turn 257. Following this, there were several instances of Kazue uttering the phrase in instances that are most likely serving as private speech, as she tries to gain an understanding of the phrase. Finally, in turn 288 after reading Carol’s proposed solution, she again explicitly states that she does not understand this phrase. In turns 258 and 288 Carol does not address Kazue’s question, but rather pushes the activity forward as she spent time considering and noting down her proposed response to the WCF.
This resulted in a missed opportunity for learning, as Carol was confident with the phrase but did not provide Kazue with other-regulation to assist her with it. No CKPs were identified as result of this interaction.

The other manner by which mutuality was displayed was by placing value on a partner’s suggestion, and being able to utilise what was said by building on each other’s utterances to find a solution. An example of Natsuko and Yumi being able to achieve this includes the following excerpt:

Excerpt 6.7
50 Yumi: I couldn’t discover (whispering as writing) to?
discover, I couldn’t discover
51 Natsuko: or find out?
52 Yumi: find out discover solve, ah, discover how to solve
(occasional eye contact)
53 Natsuko: how to solve (Yumi writes on draft one)
(Natsuko & Yumi, Feedback Session 1)

In the preceding excerpt, Yumi and Natsuko could build on their partner’s suggestion in a manner that allows them to work towards a solution. The aspect of mutuality is displayed by Yumi not rejecting Natsuko’s suggestion in turn 51. Rather than dismissing it as irrelevant, Yumi takes the suggestion up for a moment as she appears to test it by repeating it. While causality in this situation is difficult to prove, it is likely that Natsuko’s suggestion of find out assists Yumi to access the lexis solve, which becomes a crucial part of the final solution. Natsuko identified this as an interaction that co-constructed new knowledge for her, and Yumi identified the assistance from Natsuko as helping her to prime her existing knowledge. Conversely, excerpts taken from Carol and Kazue’s first feedback session highlight the impact of not being able to build suggestions made by one’s partner. Some excerpts highlighting this include:

Excerpt 6.8
172 Kazue: a, a, a, |accompanied with the new energy source, accompanied with the appearance of new energy source (Carol is looking away)

173 Carol: |then dropped| (writing down something; doesn’t acknowledge Kazue’s suggestion; no eye contact) it’s like not really make sense (both laugh) with that sentence right? Right, ah, coal, um, coal usage increased significantly up to seven (seventy)

...  

176 Kazue: because of the increasing usage of new energy source

177 Carol: hmm (no eye contact; seems to be thinking; rejects by not acknowledging suggestion)

178 Kazue: or

179 Carol: and then dropped, |dropped|

180 Kazue: |because of| the advent of new energy source

181 Carol: and then dropped out, dropped, dropped (no acknowledgement of previous suggestion; no eye contact)

(Carol & Kazue, Feedback Session 1)

The final solution which Carol and Kazue used for the second draft of the writing task was as follows:

In 1950, oil and gas appeared as new energy sources, which made coal usage went down.

(Carol & Kazue, Collaborative Writing Task 1)

In turns 172, 176 and 180 Kazue offers three suggestions that were arguably more advanced linguistically than the solution that was reached (albeit requiring further development to be changed into the plural form). However, on each occasion Kazue made her suggestions, Carol either rejects it, as she does in turn 173, or simply does not acknowledge the suggestion and continues to push the activity forward in a manner that did not consider Kazue’s suggestion, which occurred in turns 179 and 181. Consideration of these suggestions would have likely resulted in knowledge being co-constructed for one participant—for
example, the lexis *advent* was unknown to Carol at this stage of the study, evidenced when she identified it as such in the subsequent feedback session (see excerpt 4.3). Neither participant identified any learning from this interaction. Carol and Kazue’s experiences highlight how low mutuality, in the form of not valuing questions or suggestions, reduces the learning potential of collaboratively processing WCF. This further corroborates Storch (2002), who found that pair work was most effective when both mutuality and equality were high. While it may seem that Carol was ignoring Kazue in the preceding excerpts, Carol offered a different point of view. Her comments included:

Carol: I, I listen but I didn’t use them… I think I’m trying to thinking by myself and … I did listen her and ah thinking at the same time so look like maybe I’m not listening to her

Nicholas: and you wanted to push yourself?

Carol: yes

(Carol, Member Checking)

In her first retrospective interview, Carol commented that one potential drawback of working in pairs is “if you know your partner will get something, you will rely on her or him” (Carol, Retrospective interview 1). In combination, Carol’s comments suggest that she ignored or rejected Kazue’s suggestions due to her desire to push herself and the perceived drawback that other-regulation is not an ideal language learning strategy. Neither Kazue, Natsuko nor Yumi identified relying on other-regulation as a potential drawback of pair work, nor were there occasions when they afforded their respective partner with low mutuality. Therefore, I argue that the low mutuality Carol occasionally afforded Kazue was due to her belief that she needed to rely on herself to achieve her goals and that rather than accept other-regulation, it was better for her to push herself. This finding adds to the knowledge Storch (2002) has provided, as it clearly identifies one of the factors that can limit the learning potential of not only collaboratively processing WCF, but of pair work in general. Carol’s experiences show that a learner’s perception of the need to push themselves in order to achieve their goals, rather than utilise other-regulation, can limit the learning potential of collaboratively processing WCF.
6.6 Conclusion

Chapter 6 has discussed the factors that impacted the learning potential of collaboratively processing WCF through the lens of AT. In 6.1, participants’ utilisation of an inanimate expert such as dictionaries, translation tools and example texts via their smartphones was explored. The use of such tools were shown to be in a multi-directional interdependent relationship between all aspects of the activity system. Participants explicated different reasons for its non-utilisation, with previous learning experiences, learner preferences and skills with online resources influencing whether the tool was utilised or not. The discussion also explored how the function that the tool performed was influenced by the object of the activity and the other tools (additional languages) available to participants. The use of an inanimate expert was found, more often than not, to increase the learning potential of collaboratively processing WCF but it limited the learning potential on occasions. This was argued to be significant as the effect of using these tools had been overlooked in previous studies investigating the collaborative processing of WCF.

The impact of the utilisation of an additional language on the learning potential of collaboratively processing WCF was discussed in 6.2. The discussion highlighted how the previous learning experiences and beliefs surrounding optimal language learning behaviour caused these resources to be avoided in the first feedback session. While only Natsuko and Yumi shared an additional language, both participants displayed a shift towards perceiving the tool as beneficial—with Yumi experiencing a slight shift and Natsuko a significant one. While not explicated by Natsuko, Yumi and Carol, the use of an additional language also facilitated the use of the inanimate expert. Finally, the use of the dominant language assisted Natsuko to mediate any feelings of frustration she experienced. In a similar manner to the inanimate expert, the additional common language was a tool that increased the learning potential of collaboratively processing WCF. However, like any tool, it offered both affordances and limitations. I argued these findings and discussions are important due to the use of an additional language receiving little or no discussion in the extant literature on collaborative processing of WCF.
In sections 6.3 and 6.4, factors which contribute to the rejection of WCF, and thus a reduction in its learning potential, were identified. In 6.3, Carol and Kazue displayed their agency in their language learning and did not allow the teacher to be afforded the role of expert with regard to suggested tense usage in their doctor’s letter of referral. In 6.4, Carol also highlighted how a participant’s desired outcome being directly linked to the writing task influences the learning potential of the WCF. When the task is related to the desired outcome, feedback concerning task requirements was more likely to be acted upon and influence participants approach to responding to the feedback. Additionally, perceived test taking strategies may cause a learner to reject WCF, and as such reduce its learning potential. I argued that these factors are important for our understanding of collaboratively processing WCF, as they have not been specifically identified in the extant literature on WCF until now.

In section 6.5, the participant experiences highlighted how low mutuality within a pair resulted in missed opportunities for learning, and as such reduced the learning potential of processing WCF in pairs. Rather than being a case of one participant affording themselves the role of expert, the cause of the low mutuality appeared to be linked to the perception that relying on other-regulation is a potential negative of pair and group work. This was another important issue to discuss, as it sheds further light on one of the specific causes of a breakdown in collaborative dialogue. With this chapter having presented the factors that impacted the learning potential of the collaborative processing of WCF, I will now turn to how participants used the knowledge they co-constructed in individual output.
Chapter 7: Does it make a difference? How we use what we have learnt

The data chapters discussed thus far have shown that participants co-constructed knowledge while collaboratively processing written corrective feedback (WCF) through their jointly produced texts. These chapters extended our knowledge of WCF by describing how knowledge was co-constructed in this study and illuminating the factors influencing the learning potential of collaboratively processing WCF on jointly produced texts. However, the question remains: does this make a difference to participants’ longer-term learning and language development? For there to be longer-term benefits, participants need to be able to utilise the co-constructed knowledge points (CKPs) they identified when completing new, non-repeat tasks individually. In order to gain a more comprehensive understanding of how collaboratively processing WCF impacts language learners and its practical implications for language pedagogy, there is a need to investigate how CKPs are able to be further developed and utilised in individual output.

This chapter seeks to address the third research question by examining the manner in which participants utilise the CKPs constructed during all four feedback sessions in new, non-repeat individual output. I use the term non-repeat because, as argued in the literature review, a potential limitation of previous studies investigating WCF within a sociocultural theory (SCT) framework is that the tasks used to measure participants’ ability to use co-constructed knowledge in individual performance were a repeat of the original writing task they performed in pairs (for example see Adams, 2003; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002) or required learners to edit their original attempt at the task (for example see Brooks & Swain, 2009). In the literature review I argued that a potential shortcoming of using such a post-test to measure learning is that participants may have memorised chunks of language and as such any subsequent usage is not necessarily imitation. As I will explain in 7.1, imitation is considered a transformative act in SCT (Vygotsky, 2012) and involves learners using what they have learnt in specific social contexts, and transferring and transforming this
to meet the demands of a new, similar but not identical, context (van Oers, 1998). Furthermore, the context in which this chapter examines how participants imitate CKPs goes beyond writing and includes speaking tasks. As discussed in section 2.2, the knowledge co-constructed while processing WCF in this study fits the descriptions of declarative knowledge offered by Lantolf et al. (2014) and Ullman (2014). Therefore, the examination of how CKPs are used in speech is important because any usage displayed would indicate that the declarative knowledge constructed while processing WCF has become accessible in a manner that is similar to procedural knowledge. As the literature review highlighted, studies to date have not traced the use of knowledge created via WCF in spontaneous output.

Before presenting the results of how participants did, or did not, utilise CKPs in their subsequent output, I first outline, utilising a SCT framework, how I conceptualise what the use of these CKPs in output actually evidences in section 7.1. While the constructs of internalisation and imitation were discussed in section 3.1, they are briefly revisited with the aim of establishing a clear understanding of the constructs of internalisation and imitation. This is followed by a recapitulation of the collaborative tasks and a brief description of the individual tasks. This includes an explanation of how the individual tasks provided participants with opportunities to utilise CKPs to show the transformative nature of imitation. Section 7.1 ends with a reiteration of the different types of CKPs participants identified and provides examples of usage from their output to provide a backdrop to interpret the results presented in this chapter. Section 7.2 presents data which shows the CKPs participants utilised in each of their individual tasks.

In section 7.3, I explore the factors that may have influenced a participant to draw on their CKPs, or not. This discussion identifies five factors, namely: the influence of private study and a participant’s other activity systems; the influence of the retrospective interview and the aims of this research; ‘tip of the tongue’ moments; learner agency, and the impact task type has on imitation. The chapter then highlights how several instances of learning remain invisible to the teacher unless interactions are audio- or video-recorded in 7.4. The chapter concludes by arguing that the accumulated participant experiences provide evidence that there
are limitations in using output as a tool to measure learning, and argues for alternative means to measure learning and assess learners.

7.1 Internalisation, imitation and output

The following section provides a recapitulation of how this study conceptualises internalisation. I then go on to explain in further detail how the notion of imitation is conceptualised in this study, drawing on van Oers’ (1998) notion of imitation involving recontextualisation. Based on the conceptualisation of these two constructs, I then discuss how this influences the lens through which participant output is viewed. The section then closes with a description of how the individual tasks participants completed in this study were implemented in line with the conceptualisations of internalisation and imitation. As several different types of CKP categories are identified in this study, an example of each and its imitation is also provided.

As discussed in 3.1, internalisation is “an individual’s ability to function independently of specific concrete circumstances” (Lantolf, 2005, p. 342). In this study, this is conceptualised as a participant’s ability to use the CKPs they identified when processing WCF collaboratively when performing similar tasks individually. Section 3.1 also discussed that internalisation is not a unidirectional flow of knowledge passing from the external social world into the mind of a passive individual. To do so, as Robbins (2003) has argued, fails to understand that in SCT, the individual and the social are part of a monistic unity and as such, there is a bi-directional relationship between them. Therefore, this study conceptualises internalisation as a process that involves externalisation; in other words, usage of a CKP in output is not only evidence of internalisation, but also forms part of the process of internalisation, carried out as participants imitate their CKPs.

Imitation is the key mechanism through which internalisation occurs (Guerrero & Commander, 2013; Lantolf & Thorne, 2006; Swain et al., 2015) and is not limited to private speech, but may occur in social interactions carried out after a delay from the original social interaction (Tomasello, 2003). In offering participants opportunities to display signs of internalisation of the CKPs they had
identified, van Oers’ (1998) notion of recontextualisation was drawn on. van Oers considers internalisation as a process of recontextualization, within which learners use what they have learnt in specific social contexts, and transfer and transform this to meet the demands of a new similar—but not identical—context. Through the lens of activity theory (AT) this results in imitation taking the form of a participant using the symbolic outcome of the feedback sessions (a change in a participant’s interlanguage) and utilising this knowledge as a tool when completing new tasks individually.

Based on these conceptualisations of both internalisation and imitation, participants were provided with new, non-repeat tasks which allowed for their CKPs to be transferred, and sometimes transformed, into similar contexts. This was done by facilitating tasks which had the same communicative goal and some similar features of the original collaborative writing task. For example, in Carol and Kazue’s first collaborative writing task, they described a line graph. One of its features was the phenomenon of a variable levelling off after an increase. Their individual tasks, which required them to describe other line graphs, also provided them with the opportunity to describe the phenomenon of a variable levelling off; however, the context differed, for example, what preceded or followed the levelling off, and what caused it. A quick recap of the original collaborative writing tasks and the related individual output is provided in section 7.1.2, which includes a brief description of the key aspects of these tasks.

Since the use of a CKP is also part of internalisation, this study does not consider incorrect usage of a CKP as a backward step or error in initial learning, but such erroneous usage may in fact be development in progress as participants are internalising CKPs. This is in line with two key SCT constructs. The first is the view that imitation is transformative behaviour (Vygotsky, 2012), with the transformative nature of imitation meaning that learners sometimes use what they learnt in incorrect ways (Saville-Troike, 1988). The second is the “revolutionary” or non-linear nature of learning, which includes regressing to previous ways of thinking (Lantolf & Thorne, 2006, p. 52). Therefore, unnatural or incorrect usage of a CKP is included in the results presented in this chapter.
A final issue to note in undertaking an examination of participants’ individual output is that non-usage of a CKP is not considered as evidence that unused CKPs were a type of “pseudo-learning”, which refers to Truscott’s (1996, p.345) notion of there being no long-term change to the interlanguage of a learner. In line with the philosophical assumptions discussed in section 3.3, any CKP identified by a participant which was evident in collaborative dialogue, overt private speech, or through noticing aspects of the direct WCF was considered as learning. However, based on the fact that learners are considered active agents within SCT (Storch, 2018), they may not utilise CKPs for any number of reasons despite experiencing changes to their interlanguage. Furthermore, it is impractical for a non-repeat task to facilitate usage of all identified CKPs. Each individual task allowed for a high proportion of CKPs to be drawn upon. However, it could not be expected that all identified CKPs could be used in each task. In light of these factors, a participant’s non-usage of a CKP is not considered as evidence that no knowledge was co-constructed.

7.1.2 Recapping the collaborative tasks and description of individual output

This section briefly recaps the details of the collaborative writing tasks and provides a short description of the individual tasks participants completed—with the individual tasks facilitating opportunities for participants to imitate CKPs. A point to note for all individual tasks is that there was no time limit for the writing tasks. However, for the speaking tasks, participants had 60 seconds to prepare before their verbal response was audio-recorded. This was implemented by providing participants with task instructions on a handout and preparing for the task individually. Furthermore, these speaking tasks were performed as a monologue and simultaneously, i.e. participants recorded their responses at the same time to ensure their responses were not influenced by each other.

Carol and Kazue

The first collaborative writing task for Carol and Kazue was the description of a line graph, with the WCF provided on this task making up feedback sessions 1 and 2. Participants completed four subsequent tasks.
individually, which provided the opportunity to utilise CKPs generated during these feedback sessions. These tasks are: individual writing tasks 1 and 3, and speaking tasks 6 and 8. All tasks were line graph descriptions, with each new line graph including some similar, but not all, features of the original line graph.

The second collaborative writing task Carol and Kazue completed was a doctor’s letter of referral, which required them to refer a patient to another doctor for further investigation. The WCF they received on this task made up feedback sessions 3 and 4. They completed three subsequent individual tasks that facilitated the opportunity to utilise CKPs from these feedback sessions. These tasks were: individual writing tasks 2 and 4, and speaking task 9. All of these tasks required them to refer a patient for further investigation. Each task presented participants with a new patient and new case notes. However, there were some similarities which facilitated the opportunity for participants to transfer and transform CKPs to fit the new context. A copy of the task instructions and Carol and Kazue’s responses to all individual tasks are provided in Appendix 7.

_Natsuko and Yumi_

For Natsuko and Yumi, the first collaborative writing task required them to write an email to an online store after purchasing an item based on incorrect information which had been provided on the store’s website. The WCF related to this task was processed in feedback sessions 1 and 2. Participants completed four subsequent tasks individually, which provided the opportunity to utilise CKPs generated during these feedback sessions, all of which involved dealing with a similar, but new, situation. The tasks that facilitated this are: individual writing tasks 1 and 3, and speaking tasks 6 and 8. The writing tasks required an email to be written while the speaking tasks involved participants leaving a phone message which explained their problem and what action they wanted the store to take.

The second collaborative writing task for Natsuko and Yumi was an argumentative essay on the use of school uniforms at high school, with its related WCF being processed in feedback sessions 3 and 4. All subsequent individual output required them to argue their position on new topics, which was facilitated
in individual writing tasks 2 and 4, and speaking task 9. A copy of the task instructions and Natsuko and Yumi’s responses to all individual tasks are provided in Appendix 7.

7.1.3 Types of CKPs and examples of their usage

As presented at the beginning of Chapter 4, CKPs were categorised into six types to assist in both the presentation of data but also to clarify exactly what participants identified as what they learnt. This section revisits what these types of CKPs are and explicates what counts as usage of these CKPs by providing representative examples from participant output. This is to provide a backdrop to understand the quantitative data that will be presented in section 7.2.

The first type of CKP, labelled development of lexis, is concerned with: the development of metalinguistic knowledge, new instances of usage, or meaning of known but yet-to-be-mastered lexis. Any of these CKPs were considered as used when the lexis was used in a manner that reflected this development. For example, if the verb form of an adjective was learnt, attempts to use such a verb form were counted as usage in this study. One representative example of such a CKP and its usage is Kazue and the lexis *worse*. In feedback session 3, she identified the verb form (worsen) as a primed CKP. She already knew the meaning of the lexical item, but was continuing to have difficulty rendering its adjective and verb forms correctly. In individual writing task 2 she used it as follows:

> He has been suffering from sharp pain which is located in right upper quadrant of the abdomen without radiation to other parts for four to five weeks and it has been worsened.

(Kazue, Individual Writing Task 2)

While the usage is grammatically incorrect, the attempt to use worsen as a verb is included in results. This is in line with the non-linear nature of learning described in section 7.1.1.

The second type of CKP is new lexis, which refers to learning the meaning and any associated meta-linguistic knowledge of previously unknown lexis. For example, a participant may have learnt the meaning of a new word, and
potentially some related meta-linguistic knowledge such as which part of speech it is. Any subsequent usage of such lexis is counted in the results presented in this chapter. One representative example of this is Carol and the lexis *obsolete*. In feedback session 1, Carol learnt its meaning and used the lexis in writing task 3 as follows:

As a conclusion, coal was the most important source in the past which totally obsoleted in 2010.

(Carl, Individual Writing Task 3)

In line with the theoretical underpinnings of this study, this usage is counted in results despite its incorrect form.

The third type of CKP was task strategies, which is knowledge concerned with how to complete the task. Any attempts at using these task strategies is counted in the results presented in this chapter. For example, in feedback session 2 Natsuko identified the need to request a postal address for returning goods as a CKP. Her attempt to request this information in individual writing task 1 is as follows:

Please let me know your address for posting.

(Natsuko, Individual Writing Task 1)

While the actual language used by Natsuko is quite different from what was used in the direct WCF she processed, the same strategy was employed. As such, this is included in the results presented in this chapter.

The fourth type of CKP is linguistic knowledge, which refers to grammatical knowledge that goes beyond a specific lexis. One example of such a CKP is Carol identifying the need to describe some symptoms a patient was experiencing in a manner that does not imply volition—with this knowledge not being limited to any one specific lexis and more generalisable. Before receiving WCF, Carol and Kazue described some symptoms in a manner that implied they were a result of the patients’ own volition. Therefore, any subsequent descriptions that avoided this issue are counted in the results of this chapter. One example of
such usage includes Carol’s speaking task 9, when she presented some symptoms as follows:

…his urine, ah, become red in, ah, become red…

(Carl, Speaking Task 9)

The fifth type of CKP is communicative solutions, which refers to participants finding a clearer manner to express themselves. Such a CKP is not concerned with new lexis or grammatical knowledge, but with participants finding a clearer manner of expression. One example of this is when Carol noticed the phrase *it can be seen* in feedback session 2 to introduce a feature of the graph being described. Whenever Carol used this expression to deal with a similar situation, it is counted as usage. One example of this in context is:

It can be seen on the graph,…

(Carl, Individual Writing Task 3)

The final type of CKP is letter-writing conventions, which refers to knowledge related to the formatting of text in the letter-writing genre. This included knowledge such as the address format, adding in the date of the letter, and using the correct appellation of the patient. As Natsuko and Yumi did not write any texts in this genre, these CKPs are limited to Carol and Kazue. The following example shows Kazue using three CKPs by adding in a colon after ‘Re’, using the appropriate appellation for the patient, and using a comma after the patient’s name—all knowledge which was created during feedback sessions 3 and 4.

Re: Mr John Smith, DOB September 3\textsuperscript{rd} 1965

(Kazue, Individual Writing Task 2)

This section has summarised the types of CKPs participants identified and provided examples of how their usage is included in the results I present in this chapter. The following section presents results that will show the extent to which participants utilised their CKPs in non-repeat writing and speaking tasks.
7.2 Usage of CKPs

This section presents the results of an analysis of the frequency by which participants utilised the CKPs generated during this study. As described in Chapter 3, participants read over their individual writing tasks and a transcript of their speaking tasks during the second interview. After doing so, they then identified where they had utilised CKPs while completing the individual tasks. When presenting these results, I have separated them according to each pair. This is due to each pair completing tasks of differing genres and the study being conducted over different time-frames—with Carol and Kazue completing the study over a period of five weeks and Natsuko and Yumi over a period of eleven weeks. In this section, only the frequency of usage and salient features of each individual’s usage is discussed. A more in-depth discussion of CKP usage, the context in which selected CKPs were used and the factors contributing to usage are provided later in the chapter in section 7.3.

7.2.1 Carol and Kazue

With the data for Carol and Kazue being collected over a five-week period, their individual tasks, which facilitated usage of CKPs from the first two feedback sessions, were performed as follows: individual writing tasks 1 and 3 on days 12 and 28 respectively, and speaking tasks 6 and 8 on days 18 and 25. The individual tasks that facilitated usage of CKPs generated during feedback sessions 3 and 4 were completed on days 25, 28, and 32—with the writing tasks being completed on days 25 and 32, and speaking task 9 on day 28.

Carol

Carol identified a total of 14 CKPs resulting from the interactions in feedback sessions 1 and 2. An examination of Carol’s subsequent output shows that she started out using very few CKPs when the opportunity first arose, but steadily increased her usage as the study progressed—an issue discussed in section 7.3. Additionally, she showed that some of her CKPs were able to be accessed during spontaneous speech acts, including CKPs she identified as new knowledge. A summary of the CKPs Carol utilised in subsequent output and in which task is summarised in Table 7.1.
Table 7.1 Carol’s utilisation of CKPs from feedback sessions 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>Individual Writing Task 1 (Day 12)</th>
<th>Individual Speaking Task 6 (Day 18)</th>
<th>Individual Speaking Task 8 (Day 25)</th>
<th>Individual Writing Task 3 (Day 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CKPs utilised</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Specific CKP</td>
<td>Task strategies: use of simple past tense to complete the task</td>
<td>Communicative solutions: phrase it can be seen</td>
<td>Communicative solutions: phrases it can be seen and come into use</td>
<td>New lexis: obsolete</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Task strategies: simple past tense to complete the task; text structure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Communicative solutions: phrases it can be seen and come into use</td>
</tr>
</tbody>
</table>

Carol identified a total of 19 CKPs being generated via feedback sessions 3 and 4. When compared with the first two feedback sessions, Carol utilised more CKPs from these feedback sessions in her individual output, with the main CKPs being knowledge concerned with letter-writing conventions. Once again, Carol showed the ability to use CKPs in her spontaneous output. A summary of the CKPs Carol utilised in each task is provided in Table 7.2.

Table 7.2 Carol’s utilisation of CKPs from feedback sessions 3 and 4

<table>
<thead>
<tr>
<th></th>
<th>Individual Writing Task 2 (Day 25)</th>
<th>Speaking Task 9 (Day 28)</th>
<th>Individual Writing Task 4 (Day 32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CKPs</td>
<td>8</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Specific CKP</td>
<td>Development of lexis: verb radiate taking subject pain; verb form of worse</td>
<td>Development of lexis: verb form of worse; preposition to with verb radiate</td>
<td>Development of lexis: preposition to with verb radiate</td>
</tr>
</tbody>
</table>
In total, Carol utilised primed CKPs on 18 occasions and new CKPs on 12 occasions, indicating that she was able to utilise both primed and new knowledge during her individual tasks. When considering speaking tasks, however, Carol was more likely to use primed CKPs rather than new ones during spontaneous speech—a matter further discussed in section 7.3.

**Kazue**

Kazue identified a total of 13 CKPs over the course of the first two feedback sessions. In a similar manner to Carol, Kazue did not utilise many CKPs in first individual writing task, utilising only two. Kazue provides further evidence that both the primed and new knowledge generated via WCF can be utilised in spontaneous output, utilising primed CKPs in speaking task 6 and then new CKPs in speaking task 8. It is worth noting that Kazue tended to use different CKPs in each task, with no single task accurately displaying her learning—a point further explored in section 7.3.

### Table 7.3 Kazue’s utilisation of CKPs from feedback sessions 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>Individual Writing Task 1 (Day 12)</th>
<th>Individual Speaking Task 6 (Day 18)</th>
<th>Individual Speaking Task 8 (Day 25)</th>
<th>Individual Writing Task 3 (Day 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CKPs utilised</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Kazue identified a total of 15 CKPs being constructed during feedback sessions 3 and 4. Furthermore, Kazue was less sporadic in the CKPs she used from feedback sessions 3 and 4, being more consistent in using the same CKPs on several occasions in all of her individual output. Once again, Kazue utilised both primed and new CKPs in her speaking tasks. A summary of the CKPs Kazue utilised from feedback sessions 3 and 4 is provided in Table 7.4.

Table 7.4 Kazue’s utilisation of CKPs from feedback sessions 3 and 4

<table>
<thead>
<tr>
<th>Specific CKP</th>
<th>Development of lexis: verb form of worse; preposition to with verb radiate; verb radiate takes subject pain</th>
<th>Communicative solutions: deteriorate to describe worsening condition of a patient; adjective relevant to introduce appropriate medical history; phrase any queries</th>
<th>New lexis: negligible</th>
<th>Development of lexis: adverbial form of steep</th>
<th>Communicative solutions: phrases come into use and over and the next XX years</th>
<th>Task strategies: text structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CKPs</td>
<td>13</td>
<td>2</td>
<td>9</td>
<td>Development of lexis: preposition in with trend</td>
<td>Communicative solutions: phrases reach its peak and level off</td>
<td>Development of lexis: verb form of worse; preposition to with verb radiate</td>
</tr>
<tr>
<td>Task strategies: expressing gratitude in letter opening</td>
<td>Linguistic knowledge: care with two symptoms and one verb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linguistic knowledge: care with two symptoms and one verb</td>
<td>Letter writing conventions: address format; use of date; appropriate appellation for patient; comma after patient name in subject line; colon after Re</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter writing conventions: address format; use of date; appropriate appellation for patient; comma after patient name in subject line; colon after Re</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Over the course of all individual tasks, Kazue utilised primed CKPs on 18 occasions and new CKPs on 14 occasions, indicating that both primed and new knowledge could be utilised in similar amounts. When considering the speaking tasks, Kazue utilised both primed and new CKPs in similar amounts, displaying evidence that the declarative knowledge generated via WCF may become accessible in a manner similar to procedural knowledge in a short amount of time.

### 7.2.2 Natsuko and Yumi

The data for Natsuko and Yumi was collected over an eleven-week period. The individual tasks that facilitated usage of CKPs from the first two feedback sessions were performed as follows: individual writing tasks 1 and 3 on days 31 and 63 respectively, and speaking tasks 6 and 8 on days 37 and 55. The individual tasks that facilitated usage of CKPs generated during feedback sessions 3 and 4 were completed on days 55, 63, and 69—with writing tasks 2 and 4 being completed on days 55 and 69 respectively, and speaking task 9 on day 63.

**Natsuko**

Natsuko identified a total of 17 CKPs being generated during the first two feedback sessions. Unlike Carol and Kazue, Natsuko utilised several CKPs from the first opportunity when she completed individual writing task 1. Furthermore,
she was very consistent in the CKPs she utilised throughout all the tasks; i.e. she tended to use the same ones, for example utilising the strategy of introducing herself as a new customer in each task. A summary of the CKPs Natsuko utilised in her individual output after the first two feedback sessions is summarised in Table 7.5.

<table>
<thead>
<tr>
<th>Table 7.5 Natsuko’s utilisation of CKPs from feedback sessions 1 and 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Writing Task 1 (Day 31)</td>
</tr>
<tr>
<td>No. of CKPs utilised</td>
</tr>
</tbody>
</table>
| Specific CKP | Development of lexis: spelling of *customer*, use of *purchase*, *refund*, and *state*  
New lexis: phrases with a *view to playing* and *yours faithfully*  
Task strategies: need to request postal address for returns; introducing oneself as a new customer | Development of lexis: use of *refund*, *postage*, and *state*  
New lexis: phrase with a *view to playing*  
Task strategies: introducing oneself as a new customer | Development of lexis: use of *refund*, *postage*, and *state*  
Task strategies: introducing oneself as a new customer | Development of lexis: use of *refund*, *postage*, and *state*; spelling of *customer*  
Task strategies: introducing oneself as a new customer |

In feedback session 3 and 4, Natsuko identified 13 CKPs. An analysis of the individual tasks that facilitated the usage of these CKPs shows she used significantly less CKPs—two in each writing task and none during the speaking
task. The reduction in CKP usage for these tasks is an issue further discussed in section 7.3. A summary of her usage of CKPs from feedback sessions 3 and 4 is provided in Table 7.6.

<table>
<thead>
<tr>
<th>Table 7.6 Natsuko’s utilisation of CKPs from feedback sessions 3 and 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Writing</strong></td>
</tr>
<tr>
<td><strong>Task 2 (Day 55)</strong></td>
</tr>
<tr>
<td>No. of CKPs</td>
</tr>
<tr>
<td>Specific CKP</td>
</tr>
</tbody>
</table>

Over the course of all individual tasks, Kazue utilised primed CKPs on 23 occasions and new CKPs on 3 occasions, indicating that she was able to imitate primed knowledge regularly, but CKPs identified as new knowledge were rarely imitated in her individual output.

**Yumi**

Yumi identified a total of 14 CKPs being generated in the first two feedback sessions. Her individual output shows that she experienced some difficulty in utilising CKPs. While she was able to utilise some during her writing tasks, she did not utilise any during her speaking tasks—an issue discussed further in section 7.3. A summary of Yumi’s usage of CKPs from feedback sessions 1 and 2 is provided in Table 7.7.

<table>
<thead>
<tr>
<th>Table 7.7 Yumi’s utilisation of CKPs from feedback sessions 1 and 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Writing Task 1</strong></td>
</tr>
<tr>
<td><strong>Task 1 (Day 31)</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>
During feedback sessions 3 and 4, Yumi identified a total of 11 CKPs. In a similar manner to Natsuko, she utilised less CKPs from these feedback sessions. However, Yumi did utilise a CKP in a speaking task for the first time when she included the preposition ‘in’ while using the phrase *in my opinion*. A summary of the CKPs utilised during these tasks is provided in Table 7.8.

**Table 7.8 Yumi’s utilisation of CKPs from feedback sessions 3 and 4**

<table>
<thead>
<tr>
<th></th>
<th>Individual Writing Task 2 (Day 55)</th>
<th>Speaking Task 9 (Day 63)</th>
<th>Individual Writing Task 4 (Day 69)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CKPs</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Specific CKP</td>
<td>Development of lexis: proposition in with expression <em>in my opinion</em></td>
<td>Development of lexis: proposition in with expression <em>in my opinion</em></td>
<td>Development of lexis: proposition in with expression <em>in my opinion</em></td>
</tr>
<tr>
<td></td>
<td>New lexis: <em>for and against</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicative solution: phrase <em>on the other hand</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Over the course of this study, Yumi utilised a CKP in individual output on 12 occasions. Of the 12 CKPs, eight were identified as primed knowledge and four as new, indicating a trend of imitating primed knowledge more often than any new knowledge created during the feedback sessions.

This section has presented the results of how frequently participants utilised the CKPs generated while collaboratively processing WCF in their individual output. Collectively, participant output shows that they do use CKPs when completing tasks individually, including speaking tasks. This is significant because it indicates that the knowledge constructed through collaboratively processing WCF is not ephemeral, but able to be transferred to new contexts at a later date. Additionally, some of the knowledge became accessible in spontaneous speech acts. However, in line with the notion of triangulation discussed in Chapter 3, there is a need to remain sceptical and check further (Stake, 2010). Additionally, there are salient trends in participant output that warrant discussion before attributing the cause of any learning and development to the interactions that generated the CKPs. For example, were there any factors that influenced Carol and Kazue to increase their usage of CKPs as the study progressed? Were there any factors that contributed to both Natsuko and Yumi utilising significantly fewer CKPs when considering feedback sessions 3 and 4? Consideration of what may have caused these trends is required to develop a deeper understanding of the role of collaboratively processing WCF in language learning. Finally, there is a need to consider if the output participants produced accurately reflects the symbolic outcome of the activity they identified in their retrospective interviews. An exploration of these issues is provided in the following sections.

7.3 Factors influencing the use of CKPs in individual output

The following sections discuss themes from participants’ experiences when using their CKPs in individual output. The themes were drawn not only from the trends shown in participant output but also from their retrospective interviews as they shared their thoughts on how and why they utilised CKPs in the manner they did (or in some cases, did not utilise them). First, factors that may have influenced participants to use CKPs more frequently are discussed in
sections 7.3.1 and 7.3.2. This is followed by a discussion of issues that contributed to a reduction in the usage of CKPs in sections 7.3.3, 7.3.4 and 7.3.5.

7.3.1 Influence of private study and other activity systems

When considering participants’ usage of CKPs, it is necessary to consider whether participants were practicing CKPs during the course of the study or internalising them through input and output in the other activity systems they participate in. This is based on the notion that knowledge belongs to one of two memory systems: procedural and declarative (Ullman, 2005, 2014) and that declarative knowledge can become more accessible through practice and as such is useful for spontaneous output (Lantolf et al., 2014). The CKPs generated in this study match the characteristics of declarative knowledge Ullman (2014) provides. These characteristics include: intentionally focussing attention to stimuli, knowledge learnt without repeated exposure, and learning idiosyncratic knowledge such as the meaning of lexis, phonology, irregular forms of verbs, and metalinguistic knowledge such as whether a verb is intransitive or transitive. Additionally, based on the conceptualisation of internalisation discussed in section 7.1, any interactions with CKPs in a participant’s daily life would also provide further opportunities for CKPs to be imitated and internalised, and thus would be more likely to appear in a participant’s individual output. Therefore, it is necessary to consider whether CKPs became more accessible due to practice or to natural input and output.

The influence of participants’ increasing their ability to imitate CKPs in their individual output due to private study is argued to have been minimal. Firstly, as discussed in section 3.7, no CKPS were practiced during the ten lessons that made up the course of this study, nor did they appear in any class materials after the feedback sessions. Secondly, with the exception of Yumi, participants stated that they did not revise CKPs in their private study, evidenced by the following comments:

Carol: definitely not (laughs) I’m not that good a student
       (Carol, Member Checking)
Kazue: unfortunately I seldom reviewed them
Nicholas: with some of the things you learnt with writing, did you take them home and practice?

Natsuko: almost no

Nicholas:  

Yumi: maybe I practiced some new vocabulary, so maybe because state or something (3 second pause), refund, something like, yep.

While Yumi was the only participant who appears to have deliberately practiced CKPs in her private study, she actually used the least number of CKPs. Yumi used CKPs on a total of 12 occasions, whereas Natsuko, Carol and Kazue used them on 25, 27 and 33 occasions respectively. It is likely that this practice assisted Yumi to imitate CKPs in her individual output, however the experiences of all other participants suggests that private study was not a significant factor which increased their ability to use CKPs. It is important to note that it is possible that Carol, Kazue and Natsuko reflected upon CKPs in their sub-vocal private speech, which may have increased their usage of CKPs in their output. This type of sub-vocal practice was reported as a characteristic of success language learners in Gillette (1994).

Another factor that may have increased a participant’s usage of CKPs in individual output is their participation in other activity systems, with increased opportunities to interact with CKPs in a participant’s daily life potentially skewing CKP usage to indicate higher levels of internalisation. The influence of other activity systems for each participant was different and while it appeared to have some influence, it is argued to have not been a significant factor which increased participants’ usage of CKPs. For Carol, it is unlikely that CKPs from the first two feedback sessions (concerned with a graph description) would appear while volunteering at a medical clinic. However, CKPs generated from feedback sessions 3 and 4 (a doctor’s letter of referral) would likely appear. Carol’s individual output displayed usage of 10 CKPs from the first two feedback sessions and 20 from sessions 3 and 4, indicating her work environment may have had a significant influence. Nevertheless, Carol indicated that this was not due to
her work environment. During member checking, she noted a significant disparity between what the Occupational English Test (OET) Medical exam requires and what actually occurs in her workplace. Therefore, without denying some influence from her workplace, the increase is more likely due to her desired outcome being directly related to tasks based on the OET exam. In contrast to Carol, Kazue’s daily International English Language Testing System (IELTS) preparation classes would have likely provided opportunities to further interact with CKPs from the first two feedback sessions, while CKPs related to a doctor’s letter of referral would have been highly unlikely. Despite this, Kazue used significantly more CKPs (24) from feedback sessions 3 and 4 than sessions 1 and 2 (10), indicating that the influence of her daily English classes did not cause her to use CKPs more frequently.

Natsuko’s other activity systems would have likely had some influence on her ability to utilise CKPs. She was completing a Certificate III in Spoken and Written English, and she started a Certificate III in Hospitality while participating in this study. It is likely that CKPs generated during all four feedback sessions would have a reasonable chance of re-appearing in her classes. Accordingly, this influence on her utilisation of CKPs should not be ignored and is considered to be one, but not the sole, factor contributing to frequency with which she was able to utilise CKPs in her individual output. Yumi utilised the least amount of CKPs, and while some CKPs from the first two feedback sessions such as the lexis customer and purchase would likely re-appear in her barista course, she did not repeatedly use these. Therefore, it is difficult to consider her other English studies as a factor that increased her CKP usage.

7.3.2 Influence of the interviews and research aims

Two further aspects that may have increased participants’ ability to use CKPs are the influence of the retrospective interviews and the aims of this project. Adams (2003) reported that the video-stimulated recall interview itself increases a participant’s ability to recall and use knowledge created during collaborative feedback sessions. The retrospective interviews in this study were characterised by a stimulated recall, in which participants watched a video-recording of feedback sessions, and a semi-structured interview. The first
retrospective interview in this study was conducted after the first individual writing task but before other individual writing and speaking tasks that facilitated the use of CKPs were completed. Therefore, whether or not the first retrospective interview assisted participants to increase their usage of CKPs requires consideration.

At first glance, it may seem that the significant increase in Carol and Kazue’s usage of CKPs after the first retrospective interview was caused by the interview itself. In the first individual writing task, Carol utilised one and Kazue two CKPs, with their usage increasing after the interview. However, Carol’s comments regarding her first individual writing task paint a different picture when she stated:

… I didn’t use that because uh like maybe so nervous because…not really ready for this task…it’s somewhere in my mind (but) it cannot came out.

(Carol, Retrospective Interview 2)

Therefore, for Carol, it appears that rather than the interview consolidating CKPs and assisting her to use them in subsequent individual output, it was her anxiety that caused her not to be able to utilise CKPs in the first individual writing task. In subsequent individual writing tasks Carol did not indicate anxiety as an issue, and not surprisingly, utilised more CKPs. The possible reasons for Kazue also increasing her usage of the CKPs after the first individual writing task are more difficult to identify. Kazue did not express any anxiety or unpreparedness about the task. However, it is possible that if Carol felt unprepared, I—as the researcher/teacher—may not have allowed sufficient time for both of them to mentally and emotionally prepare for the task. Therefore, in the case of Kazue, the possible effect of the interview increasing her usage of CKPs from the first two feedback sessions cannot be completely ruled out. In contrast to Carol and Kazue, Natsuko and Yumi were able to utilise several CKPs in the first individual task, and thus before any potential influence of the interview. Moreover, the number of CKPs used after the interview actually fell rather than increased. Therefore, for Natsuko and Yumi, the influence of the interview also appears to have been minimal.
The argument that the interview had minimal influence is further corroborated when considering the CKPs constructed during feedback sessions 3 and 4. The second retrospective interview was conducted after all output had been completed, and as such could not have had any influence on participants’ usage of CKPs. Both Carol and Kazue utilised significantly more CKPs from feedback sessions 3 and 4 when compared with sessions 1 and 2. While Natsuko and Yumi did draw on fewer CKPs from feedback sessions 3 and 4, the reasons for this appear to be linked to task type (discussed in section 7.3.5) rather than the absence of the interview. As such, in this particular case study, the timing of the interview is argued to have had little impact on the frequency with which participants made use of CKPs in their individual output.

In addition to the interview, it should be noted the aims of the research were stated in the Plain Language Statement and Consent (PLSC) form. It is possible that due to the form stating that the study would investigate how co-constructed knowledge is used in individual output, participants may have increased their usage of CKPs in an attempt to benefit the project. Without denying this possibility, the influence would have been on learner agency as they decided which language resources to utilise rather than an increase in their ability to use CKPs, and as such is argued not to have had significant influence on the learning potential of WCF in this study.

7.3.3 On the tip of my tongue

As discussed in the previous section, Carol identified anxiety as a factor that prevented her from utilising CKPs. In addition to anxiety, the lack of practice in participants’ private study and the classes that made up this study appears to have also contributed to reducing participants’ ability to use CKPs in individual output—especially during speaking tasks. Participant comments regarding this included:

Nicholas: but when you were speaking, for whatever reason you couldn’t
Carol: Speak it out

(Carol, Retrospective Interview 2)
Nicholas: …you didn’t use it. Is there any reason why?

Yumi: I, maybe when I speak English, I, I’m little bit nervous, so I forgot something

(Yumi, Retrospective Interview 2)

Kazue: … I tried to remember it but I couldn’t so… I read it, I can understand but writing is I need to practice it a little bit more.

(Kazue, Retrospective Interview 2)

Natsuko: I couldn’t remember the sentence on the other hand and I try to remember but I couldn’t…

(Natsuko, Retrospective Interview 2)

The above comments highlight that participants believed they had retained many of the CKPs from the feedback sessions, but found it difficult to use them in subsequent output, especially during speaking tasks. This notion is evidenced by participants explaining the meaning of several unused CKPs during their retrospective interviews. In their respective interviews, Carol explained a further four unused CKPs, Kazue two, Natsuko three and Yumi seven. The interviews are not seen as a vehicle for conducting a post-test on unused CKPs; however, on some occasions the interview naturally facilitated the opportunity for participants to explicate their understanding of some CKPs. Therefore, the numbers expressed here are not intended to act as an indication of greater or less retention by participants. Rather, it provides evidence that participants were not able to evidence all they had learnt from the feedback sessions in their output.

In addition to the anxiety Yumi speaks of, Kazue’s comments identify the lack of practice in both her private study and the classes that made up this study as a factor that reduced her ability to use CKPs in her individual output. As described in sections 2.3 and 7.3.1, Lantolf et al. (2014) argue that declarative knowledge is useful due to its potential to be utilised in a similar manner as procedural knowledge through practice. Participant output supports this notion in two ways. Firstly, it is supported by the significantly lower instances of CKPs being used during speaking tasks, i.e. that until further practice, many of the CKPs will not be available for spontaneous output. Natsuko’s attempts to use the CKP on the other hand in both her writing and speaking exemplify this argument.
Excerpt 7.1

On the other side However, … (Natsuko, Individual Writing Task 2)

Other one ah the other hand huh … … (Natsuko, Speaking Task 9)

In the second individual writing task, Natsuko started to use the CKP on the other hand, but obviously due to a lack of mastery used side instead of hand. She then deleted the phrase and used an alternative solution by utilising the contrastive conjunction however. Natsuko’s tip of the tongue moments during speaking task 9 also displayed that knowledge had been co-constructed but just was not quite ready to be accessed smoothly during spontaneous output, and further practice would most likely facilitate this. The second indication that a lack of practice reduced CKP usage is the trend of CKPs identified as primed knowledge being used more frequently than those identified as new knowledge—this trend was evident for all participants except Kazue, who utilised both new and primed CKPs in approximately similar amounts. This trend suggests that CKPs that were identified as priming existing knowledge were not only refining pre-existing knowledge, but were also simultaneously acting as a form of practice to help make this knowledge more accessible during subsequent individual output. These two phenomena indicate that the lack of study of CKPs reduced participants’ ability to utilise them in individual output.

Participant insights highlight that after they constructed CKPs and changes to their linguistic resources occurred, they experienced tip-of-the-tongue-type moments in which they were not always able to readily access certain knowledge, and thus were not able to evidence all the learning they experienced from the WCF in their output. The need for further practice of CKPs also highlights the conundrum researchers face—by not practicing CKPs in class, their origin can be more reliably attributed, however, this then makes evidencing learning in output less reliable. These insights point towards the need to go beyond output to measure learning—an issue discussed further in section 7.4.
Learner agency also influenced participants’ usage of CKPs in their individual output, with agency sometimes decreasing usage but also increasing it on other occasions. In her second interview, Kazue volunteered the following insights regarding her non-usage of the phrase *level off*:

> ah I didn’t use it (sounds surprised) maybe I write here *at the top of so* maybe uh it means already like level off … so it’s (at the top of) very useful for me easy then I can’t use another word another phrase

(Kazue, Retrospective Interview 2)

In the above quote, Kazue revealed how she sometimes exercised her learner agency as she decided to use linguistic resources she found more convenient rather than the CKP constructed during feedback session 2. Kazue identified *level off* as a CKP that primed her existing linguistic knowledge, and displayed her understanding of the phrase in interaction B13 (see Appendix 6) and during her interview. However, she used other solutions in her individual output, which in turn reduced the amount of learning she evidenced. Natsuko and Yumi also exercised their agency as they utilised alternatives to the CKP *on the other hand*. As excerpt 7.1 highlights, after two unsuccessful attempts to deploy *on the other hand*, Natsuko decided on the alternative *nevertheless* in individual writing task 4. Yumi also utilised alternatives in speaking task 9 and writing task 4 after she successfully utilised the CKP on her first attempt when completing individual writing task 2.

**Excerpt 7.2**

Nevertheless, I also agree … …

(Natsuko, Individual Task 4)

On the other hand, if you…

(Yumi, Individual Writing Task 1)

However, mixed school also …
However, I think that it has…

In addition to exercising her agency by drawing on other linguistic resources, Kazue also expressed a preference to avoid linguistic items she may have learnt but did not feel confident with. This was probably best summed up when she commented:

Nicholas: so if you are worried about something not being correct, do you prefer to try or do you prefer to delete (it)?
Kazue: I delete (said emphatically)
Nicholas: always?
Kazue: always

In contrast to Kazue, Natsuko displayed a touch of boldness, in that she believed trying to imitate CKPs was an important part of her learning process. This is one possible reason why Natsuko, unlike Carol, Kazue and Yumi, was able to so consistently use CKPs from feedback sessions 1 and 2. In her second retrospective interview, when commenting about her usage of the CKP with a view to playing in speaking task 6, Natsuko stated, “if I use in this (with a view to playing) speaking, I could remind remember more than just, just reading or writing so I tried to use the word” (Natsuko, Retrospective Interview 2). Natsuko seemed to be indicating that she was eager to try to utilise CKPs when the opportunity arose and did not allow the concerns of incorrect usage to prevent her from using them.

Participant output and the insights they offer in their retrospective interviews indicate that learner agency may cause participants to utilise alternative linguistic resources when completing individual tasks and as such it potentially reduces the amount of learning they evidence in their output. Additionally, learner preferences, such as avoidance of yet-to-be-mastered knowledge and a belief that imitation expedites learning, have the potential to
both decrease and increase usage of co-constructed knowledge. These factors also point towards the potential shortcomings of measuring learning in output.

7.3.5 Task type’s impact on imitation

The experiences of Natsuko and Yumi suggest that a final factor influencing the usage of CKPs in individual output was the type of task. For Natsuko and Yumi, the second collaborative writing task was a short argumentative text on the topic of whether or not high school students should wear a school uniform. The majority of the CKPs constructed while discussing WCF on this writing task were topic-specific and difficult to transfer to other argumentative essays; for example, the spelling of the lexis clothes, and the meaning of new lexis such as neat and obey. The subsequent output tasks were on the following topics: whether or not a gap year before entering university is a good idea; whether co-education is better than gender segregated education; and whether or not social media is having a negative impact on society. The nature of these topics made it difficult for several CKPs to be transferred into new contexts. Consequently, task type appears to have had an influence on the ability of participants to transfer CKPs to new contexts. This notion was reinforced when both Natsuko and Yumi confirmed their understanding of additional CKPs that were not utilised in their output, i.e. that the non-usage was not a result of not being able to recall a CKP but that it was not able to be transferred into the new task.

When considering the other tasks performed individually by participants, the nature of some tasks appeared to provide more opportunity for CKPs to be utilised. For example, for Carol and Kazue, CKPs related to graph descriptions and a doctor’s letter of referral were easily manipulated to fit the new context. This notion is supported by the frequency with which they utilised CKPs in subsequent output. This was the same for Natsuko and Yumi when completing individual writing tasks 1 and 3, and speaking tasks 6 and 8. When dealing with a situation in which a purchase had been made based on incorrect information provided by the store, both Natsuko and Yumi found it easier to utilise CKPs in their output. This case study has highlighted that certain task types are more conducive to facilitating the utilisation of CKPs than others. This is an important
finding to factor in when interpreting previous and future research which attempts to facilitate opportunities for participants to utilise knowledge they have constructed through the processing of WCF.

Throughout the five factors identified as influencing the usage of knowledge generated via collaboratively processing WCF, the potential limitations of output being the vehicle to measure learning have been highlighted. Firstly, participants showed they sometimes had tip-of-the-tongue moments in which they were not able to access knowledge while completing a task, yet they could recall and explain the knowledge retrospectively. Learner agency also showed that sometimes a participant may use alternative linguistic resources rather than the specific linguistic solutions a researcher or teacher is searching for. And finally, the genre of the writing also influences how knowledge may or may not be to being transferred into new contexts. All of these factors point towards the potential limitations of utilising output to measure learning, to which the discussion now turns.

7.4 Appearances can be misleading: potential limitations of (correct) output for measuring learning

While discussing factors that influenced the usage of CKPs in individual output, section 7.3 also indicated that participants did not evidence everything they learnt in their output. This section further discusses other manners in which participant output was found to not truly reflect the knowledge participants had co-constructed during their feedback sessions. The first of these, transformation and the tip of the iceberg, explores the potential limitations of measuring learning by instances of correct usage or a single episode of output. This is followed by delving into aspects of the symbolic outcome of the activity, which cannot be seen nor be captured by output.

7.4.1 Transformations and the tip of an iceberg

Carol identified the lexis obsolete as a CKP being generated during feedback session 1. She did not use the lexical item until individual writing task 3 when she utilised it as follows:
Excerpt 7.3

As a conclusion, coal was the most important source in the past which totally obsoleted in 2010.

(Carl, Individual Writing Task 3)

An initial reaction may be that Carol has evidenced an error in her learning of obsolete by attempting to use it as a verb. However, the construal of imitation given at the beginning of this chapter provides an alternative view. Because imitation is an essential aspect of internalisation and is a potentially transformative experience (Guerrero & Commander, 2013; Lantolf & Thorne, 2006), then Carol’s externalisation of this CKP may be viewed as evidence that she was imitating and internalising it. The transformative aspect is that she did not simply recite an exact copy of what she originally experienced in her interaction with Kazue, but she manipulated it to create something new and meaningful for herself. As Saville-Troike (1988) found, sometimes this results in ungrammatical usage, which has happened in this case. Therefore, rather than perceiving this erroneous usage as an insufficiency of her initial learning or a backwards step, it is arguably an important aspect of imitating and internalising this new knowledge. By taking such a view of imitation and internalisation, utilising instances of correct output to measure the benefits of WCF becomes problematic.

Kazue’s experiences with the knowledge she co-constructed during the first two feedback sessions and her subsequent output illuminate the potential limitations of utilising a single episode of output to measure learning. When completing tasks that facilitated the opportunity to utilise CKPs from the first two feedback sessions, she utilised a total of seven different ones. However, she consistently utilised different CKPs in each of the two writing tasks and two speaking tasks. This resulted in each episode of output only revealing a small proportion of the CKPs Kazue was able to use and begin to internalise through imitation. If any of these tasks are taken in isolation, an inaccurate picture of what knowledge was co-constructed would be formed. The call for multiple episodes of output to be used when investigating the learning potential of WCF has been made on several occasions (for example see Bitchener & Storch, 2016). It is
important to note that some studies have used more than one episode of output (see Bitchener & Knoch, 2009a, 2009b, 2010a, 2010b; Ellis et al., 2008; Sheen, 2007). However, these studies utilised focussed WCF and targeted a limited number of errors; therefore, the same knowledge was being tested for retention over a longer period of time. What this study does, despite being a case study and thus not extrapolatable, is provide evidence that when utilising unfocussed WCF the linguistic items a learner may display knowledge of through usage can vary considerably from task to task, and that unless multiple episodes of output are collected the true learning potential of WCF is difficult to ascertain. This needs to be considered when interpreting earlier studies, which found that unfocussed WCF was less effective and where only one episode of output was used to measure learning (for example Truscott & Hsu, 2008).

7.4.2 The learning we do not see

As discussed in section 3.2.2, Wells (2002) argues that when working within AT there is a tendency for the object of the activity system to be material in form. He goes on to explain that this leads to the symbolic outcome (in this case an increase in linguistic knowledge) created through dialogue to go unnoticed. When considering the feedback sessions that required participants to edit their writing, some aspects of participants’ symbolic outcome manifested itself in their revised texts; however, several aspects remained invisible in output. Feedback sessions in which no edits to participants’ texts were required, by their very nature, result in a symbolic outcome only, with some of the outcome potentially manifesting itself in subsequent individual tasks. Two examples that highlight this are provided below.

Excerpt 7.4

187 Carol: ahh, yeah, here, moreover complained (starts writing) complained?

188 Kazue: no, no, no, no t

189 Carol: no t?

190 Kazue: no t

191 Carol: ah, complained (writes on scrap paper to check spelling), here okay (shows Kazue)?
In the above interactions, Carol’s knowledge of the spelling of the simple past tense of the verb *complain* is confirmed and Yumi learns the pronunciation of the lexis *neat*. In Carol and Kazue’s example, an examination of the physical artefact (see Appendix 2 for their second draft) enables the teacher to become aware that the indirect WCF had assisted in them finding a more appropriate way to describe the patient’s symptoms. However, there is no evidence that Carol primed her knowledge of the spelling of the lexis. In the case of Yumi, the word *neat* may have appeared in her written output at a later date; however the fact she learnt its pronunciation is invisible. In other words, this study corroborates Wells’ (2002) contention that unless the activity is recorded in some way, there is likely to be co-constructed knowledge that is not visible to the teacher in participant output. This then suggests there is a likelihood that some learning and development may not be taken into consideration if only output—including multiple episodes—is used to measure the progress of a learner.

This leads me to argue that, in addition to moving beyond output and considering the amount and quality of assistance required when assessing the performance of a learner in a task (Lantolf et al., 2014), there is a need to allow learners to identify what they believe they have learnt. Assessors and learners can then collaboratively identify where these instances of learning have been utilised in subsequent output and trace their development as learners internalise what they have learnt through imitation.
7.5 Conclusion

As highlighted in the literature review, a potential limitation of the studies set within a SCT framework when investigating the learning potential of collaboratively processed WCF is that repeat tasks have been utilised to provide evidence of learning (see Adams, 2003; Storch & Wigglesworth, 2010; Swain & Lapkin 2002). I argued the potential limitation with this method is learners may memorise chunks of language from the reformulation, and while they are able to recall these chunks when repeating the original task, there is a need to investigate whether they could imitate this knowledge when completing non-repeat tasks. I also argued for the need to investigate whether or not this knowledge could be utilised in spontaneous output. The results of this study clearly display that participants can use knowledge they co-construct through the process of collaboratively processing WCF in new writing tasks and in spontaneous output. The finding that some CKPs, including some that were identified as new knowledge, are able to utilised in spontaneous output is significant. It shows that some of the declarative knowledge created or primed while processing WCF could be accessed smoothly and quickly, with participants stating that this occurred with no, or very little, practice. This has important pedagogical implications, as it provides evidence that the collaborative approach to writing and processing WCF used in this study has benefits that filter through to speaking skills—an issue further explored in Chapter 8.

This case study also found that the ability for participants to use CKPs was influenced minimally by external factors such as the timing of the retrospective interviews, private study and natural input and output. Therefore, the CKPs participants identified in their retrospective interviews are argued to be long-term changes to their respective interlanguages. Furthermore, the argument that direct WCF in the form of an example answer suitable for multiple learners is a viable pedagogical option was supported. For Kazue, Natsuko and Yumi, a significantly higher proportion of CKPs created while processing direct WCF in the form of an example answer were utilised when compared with those constructed while processing indirect WCF. For Carol, there was no significant difference. Therefore, the trend in this study is CKPs constructed while
Participant experiences also illuminated the potential limitations of using output as a tool to measure learning. Participant experiences suggest that influences such as how prepared they feel to perform the task, nerves, learner agency, and task type all contribute to learners not always displaying what they learnt in their output. This was further supported with participants often explaining unused CKPs in their interviews. Additionally, the potential inadequacy of utilising a single episode of output (especially when unfocussed WCF had been provided) was highlighted: participants used different CKPs in different tasks, resulting in one single episode of output only evidencing a portion of the knowledge a participant had co-constructed. Further limitations of using output to measure learning were discussed by exploring aspects of the symbolic outcome of the activity, which by its very nature cannot be manifested in output. The chapter then concluded by arguing that these factors all contribute to the notion that output is not an ideal vehicle to assess what learners do or do not learn from collaboratively processing WCF. The implications of this for both pedagogical practice and assessment in language writing classes are discussed in the following chapter.
Chapter 8: Conclusions and Pedagogical Implications

This study has investigated the experiences of four English language learners as they participated in the collaborative processing of written corrective feedback (WCF). The design of this study facilitated the collection of rich data from multiple sources. The chapters that presented and discussed this data (Chapters 4, 5, 6 and 7) revealed the complex nature of participant experiences and engagement with WCF. In this chapter, I pull together this data to present a summary of this study’s findings. I do this by first providing a brief overview of the chapters. This is followed by a summary answer of each research question. I then discuss how my findings contribute to understandings of the learning potential offered through the collaborative processing of WCF provided to jointly produced texts. This is followed by a discussion of how these contributions may be implemented in the language classroom. I then outline directions for further research that could build on this study’s contributions. The chapter finishes with my concluding remarks, during which I reflect on the journey this research has taken me on as a language teacher and researcher.

8.1 Overview of chapters

Chapter 1 introduced the aim of this research, which was to explore how learners experience and engage with WCF when it is collaboratively processed through jointly produced texts; to identify factors impacting the learning potential of collaboratively processing WCF; and to explore how participants utilised any knowledge they co-constructed while collaboratively processing WCF in their individual output. In Chapter 2 I argued that while the extensive research into WCF had provided important insights into our understanding of WCF, there was a limitation in how far our understanding of its usefulness could be taken with studies underpinned by cognitive theories of language. I contended that there was a need to reframe the provision of WCF within a sociocultural theoretical approach to language learning. I then outlined how one method to apply such an approach was for learners to write a text collaboratively and process the feedback in pairs or groups. The chapter concluded by highlighting the need for the use of
activity theory (AT) and multiple sources of both written and spoken output to advance our knowledge of WCF.

In Chapter 3 I discussed the frameworks that underpin this study and the research methods used to investigate the research questions. The chapter argued that within the context of collaboratively processing WCF through jointly produced texts, sociocultural theory (SCT) suggests that much, but not necessarily all, of the process of learners priming or creating knowledge will be visible in dialogue. This dialogue includes participants talking with, or talking to, their partner and talking to themselves about how to respond to an instance of feedback. A brief introduction to activity theory (AT) was then provided, outlining that AT emerged as an extension of SCT (Kaptelinin & Nardi, 2012) and is considered to have three versions, or generations (Engeström, 2014). The third generation (G3) of AT is a theoretical framework that facilitates a rich description of participant experiences of collaboratively processing WCF from multiple perspectives, and was considered to be the appropriate lens to investigate the first two research questions. The second generation (G2) of AT was posited to be appropriate when investigating the third research question as only one perspective was being investigated. The chapter then discussed the implementation of this study and the research instruments used.

Chapters 4, 5, 6 and 7, the data chapters, included both analysis and discussion of the findings. Chapters 4 and 5 discussed the experiences of each pair as their experiences with collaboratively processing WCF were presented through the lens of AT G3. The chapters presented the data collected via the video recordings of participants processing WCF, resulting in a rich description of each of the four feedback sessions participants took part in. The description presented each feedback session individually, illuminating aspects of the activity system that changed as the study progressed.

Chapter 6 built on the findings Chapters 4 and 5 provided and explored the factors which impact the learning potential of collaboratively processing WCF. In addition to utilising data from the video-recordings of participants processing WCF, the chapter also drew on data from the retrospective interviews to help provide an understanding of why participants approached the activity in
the manner they did. This facilitated an in-depth discussion of the aspects of the activity that impacted the learning potential of the collaborative processing of WCF in both helpful and less helpful ways.

Chapter 7 investigated whether or not any longer-term benefits were derived from the feedback sessions. The chapter investigated this by examining how participants used what they had learnt in their individual output. Participants completed both writing and speaking tasks that facilitated the use of CKPs. The chapter also drew on the data from the retrospective interviews to allow a discussion of participants’ perceptions of the factors that influenced their usage of CKPs.

8.2 Answers to Research Questions:

In this section I answer each research question in light of the data analysed. Before presenting these answers, I would like to note that the data presented and analysed in this case study presents the results for four participants at one particular point in time. Participants should not be considered as static entities that remain unchanged throughout the study (Merriam & Tisdell, 2015). Therefore, the answers to my research questions relate to a very specific context, and if the study were replicated, even with the same participants, different results might be found. Furthermore, as discussed in Chapter 3, this is a case study and as such its results are not intended to be extrapolated to the entire English language learner population. However, as Yin (2009) states, case studies can be extrapolated to theoretical positions. Therefore, the answers presented in this section are argued to contribute to theoretical perspectives on how language learners experience and engage with WCF, what impacts its learning potential, and how the knowledge learners co-construct may be used in subsequent individual output.
8.2.1 Research question 1: How do learners experience and engage with the process of collaboratively processing WCF on co-constructed texts?

In the introductory chapter, I noted that this research question was, in effect, asking about the what, how and why of collaboratively processing WCF. In this case, the what is referring to the symbolic outcome, or what participants identified as the knowledge co-constructed during the activity. The how is referring to how participants arrived at this outcome, and the why is referring to the reasons why participants completed the activity in the manner they did. In presenting the answer to this question, I start with the what, or the symbolic outcome. I then go on to describe the how and why. All aspects of the activity interacted in an interdependent manner and none of the aspects described in this section should be conceived as a fixed, independent variable exerting an influence on the activity. Rather, they should be viewed as dynamic parts of a monistic unity, constantly interacting in interdependent ways and constantly changing.

Analysis of participants’ experiences suggested that they benefited from collaboratively processing WCF through jointly produced texts. This is evidenced in the total of 115 co-constructed knowledge points (CKPs) that they identified. Their experiences also show that this was not merely priming existing knowledge, but that new knowledge was also co-constructed during the activity. This is evidenced by 52 of the CKPs being identified as new knowledge. The symbolic outcome of the activity shows that the knowledge participants co-constructed was broad-based, and included: development of lexis; learning new lexical items, task strategies, finding clearer ways to express themselves, and letter writing conventions. Participants’ usage of several of these CKPs in their individual output provided evidence that the CKPs they identified were real changes that had occurred in their respective interlanguages and not just the result of soon-to-be-forgotten collaboration in the moment.

The manner by which CKPs were generated revealed that the majority of CKPs resulted from the interactions between participants that the WCF initiated, rather than the feedback itself acting as a type of assistance that enabled participants to construct knowledge. In other words, the how can, largely, be
answered with one word—languaging. As I have previously stated, as per Swain’s (2006) definition, I use the term languaging to refer to language being the vehicle through which meaning is made and knowledge shaped. The most common tool by which CKPs were generated was via languaging, which took the form of collaborative dialogue and sometimes included overt private speech. As previously stated, collaborative dialogue is a term referring to one or more people co-constructing knowledge while two or more interlocutors engage in dialogue while languaging (Swain et al., 2011), and private speech is speech directed at oneself to mediate one’s own behaviour (Lantolf, 2000; Swain et al., 2011). While private speech by its definition may seem to not form a part of an interaction with another individual, this case study further corroborated Well’s (2002) notion that overt private speech is often not easily delineable because it can form an important part of a dialogue between interlocutors. Of the total 115 CKPs identified by participants in this case study, 98 of them were identified in an interaction during which participants engaged in collaborative dialogue—with private speech sometimes forming part of this dialogue. Participants who shared a dominant language conducted this languaging in both the target language English and their dominant language Japanese. However, it needs to be noted that all participants may have been languaging in their dominant language through sub-vocal private speech. Approximately 30% of these inter-individual interactions in which CKPs were generated included the use of an inanimate expert to further supplement participants’ linguistic resources to find a response to the WCF. The remaining 17 CKPs that participants identified were generated without participating in an inter-individual interaction; 15 were attributed to the WCF acting as a type of assistance that enabled knowledge to be primed or created, and two CKPs were attributed to the WCF and additional assistance from an inanimate expert. This shows that the how was predominantly through inter-individual interactions, during which participants engaged in a combination of languaging through collaborative dialogue and private speech (which includes use of participants’ dominant language), and interacting with an inanimate expert and the WCF. This indicates teachers may benefit from conceptualising WCF as a tool that initiates languaging through inter-individual interactions, rather than a tool that scaffolds learners to correct their linguistic errors.
In describing the why of the activity, this study found all aspects of the activity system were interacting interdependently and were constantly changing—including the participants themselves. The why is a combination of all factors of the activity system, i.e. the tools, the outcome, the division of labour, the community, the rules and the participants—including their personal history and language learning beliefs. Furthermore, other activity systems a learner is participating in influence the activity. This results in the why being very different for each participant and constantly adapting to changes in the activity system. The most salient example of this complex interdependent relationship is shown by the tools participants utilised. At the beginning of the study, participants’ previous learning experiences, preferences and beliefs concerning optimal language learning strategies resulted in some tools not being used, or in some cases, not being valued. These tools included an inanimate expert for all participants; a shared dominant language for Natsuko and Yumi; and for Carol, an under-valuation of and reluctance to use other-regulation. However, as the study progressed and participants used these tools, a different symbolic outcome was created. As participants saw value in this outcome, it changed them as their own beliefs around language learning shifted, which then changed the value they placed on these tools. This in turn changed the frequency and manner by which the tools were used. While the specifics of the why were different for each participant, the common thread is that any attempt to understand the why requires an understanding of the complete person—including all aspects of the current activity of responding to WCF, other activity systems they participate in, and the learner’s personal history and learning beliefs.

To summarise, participant experiences show that collaboratively processing WCF through co-constructed texts was beneficial for them. The manner by which knowledge was co-constructed was mainly through the ensuing languaging the WCF initiated—with the utilisation of one’s dominant language and an inanimate expert being utilised in addition to the target language. This indicates that WCF is better conceptualised as a tool for teachers to initiate languaging rather than a type of scaffolding to assist learners to find and correct errors in their writing. Finally, any attempts to understand why learners experience and engage with WCF as they do will require an understanding of all
aspects which make up the activity system, their other inter-related activity systems, and the learner’s personal history and language learning beliefs.

8.2.2 Research question 2: What factors impact the learning potential of collaboratively processing WCF?

The descriptions the first research question provided facilitated an examination of the factors which impacted the learning potential of collaboratively processing WCF through jointly produced texts. Five factors were identified. While these factors are identified and discussed in isolation, the factors themselves are interacting interdependently with all other aspects of the activity system.

The first two factors were concerned with the tools participants utilised to find responses to the feedback—these being the use of an inanimate expert and, in the case of two participants, overt use of the dominant language. The use of an inanimate expert, in the form of online translation tools and dictionaries, assisted with the construction of knowledge on 19 occasions during this study. At face value, it may be tempting to conclude that this tool increased the learning potential of the activity. However, Kuuti’s (1996, p. 27) argument that a tool is “both enabling and limiting” should not be forgotten. There were clear instances of the tool being enabling and as such increasing the learning potential of the activity. However, as its usage increased, participants reduced their usage of other-regulation. In particular, less other-regulation reduced the opportunities for participants to act as the teacher when discussing the meaning of some lexis—a role participants described as beneficial for themselves as well as their partner.

The second tool that impacted the learning potential of the activity was the availability of a shared dominant language. One of the two pairs in this study shared a dominant language. The usage of this tool was beneficial on several occasions, as they used it to teach each other the meaning of new lexis or whole sentences; find a response to an instance of WCF; analyse aspects of the direct WCF; and access an inanimate expert. The tool was also described as helpful to reduce feelings of frustration with the feedback. In a similar manner to an inanimate expert, the tool was both beneficial and limiting. Its usage increased as the study progressed, eventually being used more often than the target language.
English. This then reduced opportunities for participants to explain ideas in the target language. For example, rather than explaining the meaning of unknown lexis in English, participants provided a translation of its meaning. This is potentially limiting because the act of using synonyms to explain vocabulary to a classmate was described as beneficial for the participants who did not share a dominant language.

Before discussing the other factors that impacted the learning potential of the WCF, it should be noted that participants did not allow both these tools to be used at the beginning of the study. As both of these tools were beneficial and may increase the learning potential of the activity, the less visible aspects that underlie the use of them then becomes a participant’s language learning beliefs and the rules they place on the activity. When language learning beliefs do not value these tools or disallow their usage, then these beliefs themselves may become a factor that limits the learning potential of the activity.

The third factor impacting the learning potential of WCF identified in this case study was the community. The community of one pair shifted when I, the teacher/researcher, was not considered an authoritative figure for some issues on one of the writing tasks—in this case a doctor’s letter of referral. Carol’s experiences in other activity systems resulted in both her and Kazue revising my role as an expert in this genre, and placing Carol as a more authoritative figure within the community. This resulted in any feedback that contradicted Carol’s beliefs about how the letter should be written (for example which tenses should be used) to be rejected by both participants. Accordingly, in this example, such a shift in the community causes the learning potential of WCF to be reduced. However, conversely, it can be argued that when the provider of the feedback is viewed as the authoritative figure in the community, the learning potential of the feedback increases.

The final two factors identified as impacting the learning potential of collaboratively processing WCF were the object, or language learning goals, and the division of labour. When a direct link between the writing task and a language learner’s goals was clear to the learner, instances of WCF addressing task requirements were more likely to be responded to. However, when this link was
not evident, participants tended to ignore the instance of WCF. As knowledge was mainly co-constructed through the interactions the WCF initiates, failure to discuss an instance of WCF may significantly reduce any learning potential the feedback may offer.

The division of labour was a factor that significantly reduced the learning potential of the activity for one pair. As discussed in 3.2, the division of labour is considered from both a horizontal and vertical perspective (Bitchener & Storch, 2016; Foot, 2014). The horizontal perspective refers to who does what, and the vertical refers to the power relations between participants. It was the vertical perspective that influenced the learning potential of the activity in this case study. Carol often rejected her partner’s suggestions without giving them due consideration or ignored her partner’s suggestions and questions, which resulted in her not allowing other-regulation to be utilised as she responded to instances of WCF. Over the course of the study this resulted in 15 missed opportunities for learning. By drawing on the work of Damon and Phelps (1989) and Storch (2002), I referred to this as low mutuality, with mutuality being defined as the level of interest shown for each other’s suggestions (Damon & Phelps, 1989, p. 10). Therefore, the level of mutuality influences the learning of the activity, with a higher level increasing learning potential and a lower level reducing it.

This section has discussed the factors that were identified as impacting the learning potential of collaboratively processing WCF. The common thread in all of these factors is that they were dynamic and changed to some degree over the course of this study. This suggests that with practice and instruction, these aspects can change to help both learners and teachers maximise the benefits of the collaborative processing of WCF.

8.2.3 Research question 3: How is the co-constructed knowledge generated via collaboratively processing WCF drawn upon during individual output?

Participants were provided with multiple opportunities to use CKPs generated while collaboratively processing WCF. An examination of their output and the insights participants provided in their interviews shows two key findings.
The first is that participants were able to utilise CKPs in their individual output, including speaking tasks. The second is that participant output did not accurately reflect the learning and development that had occurred while processing the WCF.

The individual output participants produced after processing WCF demonstrated that they were able to use CKPs in new, non-repeat tasks. All participants deployed CKPs in their writing tasks, with usage including both primed CKPs (the priming of existing knowledge) and new CKPs (the co-construction of new knowledge). However, participants who were at a higher level of proficiency used significantly more new CKPs than participants who were at a lower level. Furthermore, all participants were able to make use of some CKPs in their spontaneous output. Significantly, three participants were able to utilise new CKPs in their speech. As these participants stated they did not revise CKPs privately, this indicates some of the knowledge co-constructed became accessible for spontaneous output with no deliberate practice. However, participants at a higher level utilised significantly more CKPs in their speech when compared to lower-level participants. This indicates that for learners with more developed skills in their additional language, new knowledge may become more easily accessible with less time and effort than those who have less developed language skills.

The second finding is that participants did not apply everything they had learnt in their output. During their interviews, all participants were able to recall and show a correct understanding of several CKPs that they did not use in their output. The reasons for this varied, but included anxiety, the need for further practice and learner agency. Finally, the genre of the writing and speaking tasks influence the ability for participants to transfer CKPs into new contexts. Additional support of the finding that participants’ output does not accurately reflect the symbolic outcome is found in the fact that some of the CKPs participants identified cannot be evidenced in output. Examples of this include instances of participants learning how to spell and pronounce lexis. Had the activity not been video-recorded and had participants not watched the video recordings and identified what they learnt, such learning would be invisible to the teacher.
I will now turn to how the answers to my research questions contribute to our knowledge of WCF and then discuss the pedagogical implications of the findings of this study.

8.3 Contributions of findings

The answers to my research questions contribute to our knowledge of the collaborative processing of WCF in several ways. Through the use of AT and data being collected from multiple sources, on multiple occasions, the rich description of how participants experienced and engaged with collaboratively processing WCF has provided valuable insights into how participants co-constructed knowledge. In particular, this study highlighted the importance of viewing WCF as a tool to initiate collaborative dialogue to co-construct knowledge. Additionally, the case study shed further light on the role additional tools in the form of an inanimate expert (such as online dictionaries) and a dominant language play in this process. The impact that these tools have on the activity of the collaborative processing of WCF has, until now, remained under-researched. Furthermore, the description illuminated why participants engaged with the feedback in the manner they did. This provided an understanding of how learners’ perceptions of the aspects of the activity changed over time and the influence their previous language learning experiences had on their engagement with the WCF in this study. Collectively, these provide an understanding of how the learning potential of the activity can be maximised.

The use of multiple sources of output to examine how the knowledge participants primed or co-constructed while collaboratively processing WCF has been used in individual output is also an under-researched area. This study provided an examination into how participants used CKPs in subsequent written and speaking tasks. It provides evidence that knowledge generated while collaboratively processing WCF is not useful only in the moment, but is able to cause changes to a learner’s interlanguage. This was evident as participants imitated CKPs in their individual output, including speech. The usage of CKPs in spoken output reveals that learning generated via the collaborative processing of WCF can be utilised in spontaneous output, allowing teachers to extend the benefits of providing WCF beyond written output. Furthermore, in this case
study, some new CKPs were utilised in speech without any deliberate practice. This research has also further developed the application of AT by highlighting the importance of going beyond the material outcome and considering the symbolic outcome of an activity.

### 8.4 Pedagogical implications

As I argued in the previous section, the design of this study enabled the research questions to be answered in a manner that contributes to our knowledge of WCF. In this section I will discuss the implications of the contributions these answers make to our understanding of WCF.

The first implication is that the approach used in this case study was beneficial for learners—evidenced by the number of CKPs and the type of knowledge participants identified. In this study the knowledge is much broader in scope when compared with studies that have investigated WCF when it is processed individually on individually produced texts. Such studies have found WCF’s benefits to be limited for simple rule-based items (for example see Bitchener, Young & Cameron, 2005; Ellis et al., 2008; Ferris & Roberts, 2001; Sheen at el., 2009). Very few of the CKPs identified by participants in this study fit the criteria of simple rule-based linguistic items, such as the referential use of articles. Therefore, in line with researchers who have argued for the benefits of collaborative writing (Storch, 2005; Wigglesworth & Storch, 2009), this study provides further evidence that learners benefit not only from jointly producing texts, but that working together to process and respond to WCF broadens the advantages WCF offers learners. Additionally, this study shows that co-constructed knowledge is not simply used in the moment, but may be used by learners at a later time in subsequent output.

The second implication is that the best manner for teachers to enable learners to increase the learning potential of processing WCF collaboratively is instruction on the activity itself. This case study shows that all aspects of the activity system interact interdependently to influence its outcome, and as such the learning potential of WCF. Other activity systems and a learner’s personal beliefs around optimal language learning strategies also influence the activity. In some
classroom environments, it may not be possible to come to a sufficient understanding of these issues for each learner. Furthermore, the complexity of these relationships may leave one feeling like there is little a teacher can do to maximise the learning potential of collaboratively processing WCF. However, the case study shows that the participants themselves changed as their language learning beliefs changed. Therefore, while teachers may not be able to gain a complete understanding of the activity systems of every learner, they can guide learners in how to maximise the benefits of collaboratively processing WCF on jointly produced texts. For example, teachers can present the learning potential of collaborating with peers, dominant language use, online resources and so forth to help educate learners on the benefits of the approach. Additionally, teachers can guide learners in how these tools can be used in manner which maximises the learning potential of the activity. Klingner and Vaughn (2000) showed how explicitly teaching learners to perform certain roles during group work helped maximise the benefits of group work for young learners. If the latter can be guided in learning how to maximise the benefits of group work, I argue that so can adult learners be guided in maximising the learning potential of collaboratively processing WCF. Other studies that offer empirical evidence that learner beliefs are not fixed and may change through instruction include Sato (2013) and Vásquez and Harvey (2010). Consequently, for teachers to maximise the benefits of collaboratively processing WCF they should attempt to understand, as much as is practically possible, the complex factors interacting to influence the activity’s learning potential, and provide learners with instruction to help understand the activity’s benefits.

This case study did not corroborate the notion that WCF is more beneficial when it is focussed, i.e. when it addresses some errors but ignores others. Several studies underpinned by cognitive theories of language learning have argued that WCF is most beneficial when it is focussed (for example Bitchener & Knoch, 2009b; Ellis et al., 2008; Sheen, 2007; Sheen et al., 2009). Due to participants receiving unfocused WCF throughout this study, a comparison of their experiences with focused and unfocussed WCF cannot be made. However, with participants identifying a total of 115 CKPs, there is little evidence that the unfocussed nature of the feedback inhibited learning. Therefore,
when providing WCF to be collaboratively processed, teachers should not feel the feedback needs to necessarily target certain errors and ignore others.

There was no significant difference in the number of CKPs identified according to the type of WCF. This provides evidence that direct WCF in the form of an example answer was just as beneficial as indirect WCF. One of the issues the extant literature has identified is the excessive time teachers spend providing WCF (I. Lee, 2008b, 2014). A potential way to ease this is for language teachers to provide the class with direct WCF in the form of an example answer that can be used for all pairs in the class. However, one caveat is the benefits of direct WCF varied according to each pair. Carol and Kazue primarily identified knowledge related to finding clearer ways to express themselves, while Natsuko and Yumi primarily identified knowledge concerning the development of known lexis or learning the meaning of new lexis. This highlights the need for further research into how the level of the learners influences exactly what type of knowledge will be co-constructed when using direct WCF in this manner.

The final implication of this study is the limitations of using output to assess what learners have learnt. Participants did not evidence all that they learnt in their output. SCT espouses the need to go beyond output and to consider changes in the quality and amount assistance when measuring development (Lantolf et al., 2014). However, this study argues that there is value in going one step further and considering what learners themselves perceive to have learnt. For the language teacher, this could take the form of requesting students to note what knowledge was primed or created after collaboratively processing WCF. Towards the end of a course of study, students could then identify where they have utilised this knowledge in their subsequent output. In line with the non-linear view of learning SCT espouses, this output should include incorrect usage. Employing such a process would allow teachers to, at least to some degree, assess learners on what they have learnt rather than on their performance.

### 8.5 Future research

The contributions of this case study open up several avenues of further research. This case study found that the most effective action a teacher can take to
maximise the learning potential of the activity is to guide learners in how to utilise the learning potential offered by the activity. Therefore, the first avenue to investigate is to examine the impact of learners receiving such guidance on the activity. The second is to further investigate the use of direct WCF in the form of an example answer. If the results of this case study are corroborated in larger-scale studies, then the pedagogical implications would be for higher-level language learners to benefit differently from indirect and direct WCF, and for different types of WCF to be used to facilitate the development of different types of knowledge.

The third and fourth issues for further research go beyond WCF itself, and are concerned with broader language learning issues. The third is further investigation into how declarative knowledge becomes accessible for spontaneous output. Based on the work of Ullman (2005, 2014), the knowledge participants co-constructed in this study can be considered to be declarative knowledge. Because declarative memory is argued to serve both explicit and implicit knowledge (Ullman, 2014), it cannot be conclusively argued that the knowledge was explicit. However, due to participants being conscious of this knowledge, I argue it was most likely explicit, rather than implicit. Leaving aside this debate, which is beyond the scope and aims of this study, declarative knowledge has been argued to be useful for language learners, because, with practice, it is able to be accessed in spontaneous communication (Lantolf et al., 2014). Nonetheless, this study found that some declarative knowledge was available for use in spontaneous output with no practice, yet other knowledge was not. A deeper understanding of the factors influencing this phenomenon would have significant implications for language teaching. The fourth issue is that this case study found that participants did not accurately reflect all they had learnt in their output. There is a need to further explore the potential of other articulations of evidence of learning than just output as a vehicle for assessment. Finally, given the nature of this topic and the need for rich descriptive data, further case studies such as this will be beneficial. Through the pooling of results of case studies, clear patterns of experiences may emerge that can further inform theoretical positions on WCF.
8.6 Concluding remarks

This PhD journey began after I was introduced to the debates concerning the learning potential of responding to the writing of language learners with WCF. This initiated a strong desire within me to have a deeper understanding of how to best respond to the writing of my students. Before I embarked on this journey, my knowledge of how to apply a SCT framework to WCF was, retrospectively, rather superficial. I have, and continue to, regularly integrate pair and group work in my classes. However, this began as a product of my Certificate of English Language Teaching to Adults (CELTA) training. While CELTA strongly promotes pair and group work, from my experience this was done with the aim of creating a student-centred classroom rather than attempting to apply any theory of learners meaning-making through collaborative dialogue. In this research journey, I feel there have been countless benefits for me personally, but two outcomes stand out for me as a language teacher.

Firstly, through this study I have developed a much deeper understanding of how best to respond to the writing of language learners. This study evidences that engaging learners in pair or group work throughout the whole writing process, including responding to WCF, is more beneficial than my earlier practices of learners writing and responding to WCF individually. However, this approach is not something that can be tagged on to existing practices. It requires a shift away from traditional information processing-type language learning theories and a move towards the notion of learners making meaning on the inter-personal plane. This is the second significant impact this PhD journey has had on me. My understandings around language learning have been challenged, extended, and re-shaped. I now believe I have a much better understanding of why the approach of pair and group work was so consistently beneficial in my classes in the past. Yes, it does help create a student-centred classroom, but more importantly it provides opportunities for learners to language—with the act of languaging being language learning. It is through this perspective that I hope other language teachers may review their existing approaches to how they respond to the writing of their language learners and re-conceptualise WCF as a tool that can initiate languaging between two or more language learners.
Appendix 1: Sample pre-study interview questions

1. Tell me a bit about yourself? (Where are you from? When did you arrive in Melbourne?)
2. Describe what the English class in [home country] were like?
3. How were you taught writing? What kind of feedback did the teacher provide?
4. Did that feedback help you?
5. Where have you studied English since arriving in Australia?
6. How do you think you will use English in the future?
Appendix 2: Participants’ Collaborative Writing Tasks

Carol and Kazue: Collaborative Writing Task 1 Instructions

The graph shows the percentage of four different types of fuels in use between the years 1800 and 2000.

Summarise the information by describing the main features of the graph and making comparisons where appropriate.

Write at least 150 words.

Fuel usage 1800 to 2000

(Taken from Tyreman, 2012, p. 28)
This following graph describes the trend of consumption of 4 different types of fuels from 1800 to 2000.

At the beginning, wood was the only energy source which dramatically decreased until 1950 and totally stopped using at 2000. On the other hand, coal usage started in 1800, increasing significantly until 1900 by 70%, then dropped and harvested in 2000.

In 1900, oil and gas appeared as new energy sources, which made coal usage go down. They both have risen to 30% in 2000. However, oil grew up more steeply than gas.

In 2000, all fuels except wood are consumed equally.

Is there anything else you could add to your conclusion?
The following graph describes the consumption of four different types of fuels from 1800 to 2000.

At the beginning, there were two different types of energy sources, which were wood and coal. Wood was the most important source of energy in 180 which accounted for 100%. Until 1950, the Reduction of wood usage was dramatically and totally stopped using in 2000. on the other hand, coal usage increased significantly by 70% in 1950. and went down to half in 2000.

In 1950, oil and gas appeared as new energy sources, which made coal usage went down. They both had risen to 30% in 2000. However, oil consumption grew up more steeply than that of Gas.

In 2000, all fuels except wood were consumed equally, making wood as a obsolete fuel.
Writing task 1—Example Answer

The graph shows the use of wood, coal, oil and gas for a period between the years 1800 and 2000.

Only wood was used for fuel in 1800. The use of wood declined following the advent of coal. This decline continued steadily for the next 150 years and after 1950 there was negligible use of wood.

No coal was used in 1800 but its use increased rapidly over the next 100 years. By about 1875, coal and wood were used in equal amounts, after which time coal became the most popular fuel. Coal reached its peak around 1900 and then, like wood, it declined steadily, as oil and gas became more popular.

Oil came into use after 1900. Starting at a low level, the percentage of oil rose quickly over the next 50 years before levelling off after about 1970.

Gas came into use at the same time as oil, and although less popular at first, the use of gas grew steadily over the next 100 years to eventually match oil.

It can be seen that coal, oil and gas account for roughly one-third each of the fuel used in the year 2000. At this time, coal was in decline, oil use was holding steady and gas was continuing to climb.

(Adapted from Tyreman, 2012, p. 180)
Patient History:

Patient: Nicole Katie  DOB: 12 July, 1971

Social History: Lives with her husband (Ivan) and their daughter (Lydia Imogen)
Housewife (left work after she was married)

Family history: No family history, but mother died of kidney failure

Depression (due to the sudden death of the first baby – 1992)

Allergic reactions (uterine infection - 1997)

15 April 2005

Failure in digestion. Unable to eat properly due to pain in the stomach. Took pain
relievers, analgesics (for two continuous days). Problem worsened. Felt pain,
radiating back to the lower abdomen

Change in coloration of urine (yellowish). Loss of appetite Weight loss – 2.5 kg
within 15 days. Vomited twice

18 April, 2005

Other signs: Severe pain, lasted for several hours Pain and vomiting, shortness of
breath, blood in bowel motions and urine. High fever and sweats

Plan: Abdominal CT scan suggested for accurate diagnosis of abdominal pain.

Writing Task: Using the information in the case notes, write a letter of referral for
further investigation and a definitive diagnosis to Dr. Ralph Emerson, at Royal
London Hospital, Whitechapel Rd, Greater London E1 1BB, United Kingdom.

In your answer:

- Expand the relevant notes into complete sentences
- Do not use note form
- Use letter format

The body of the letter should be approximately 180-200 words.

(Taken from Maiva Corporation, n.d.)
Dear Dr Ralph Emerson,

Regard: Nicole Katie  DOB 12 July, 1971

I am writing this letter to refer Mrs Katie who is suffering from severe abdominal pain for further investigation.

She presented the first time on 15th April due to stomachache which caused her indigestion. Although she took pain relievers and analgesics for two days, the symptom worsened and began to radiate back to the lower abdomen. She also noticed her urine color became darker and some weight loss within 15 days.

3 days later, she experienced severe pain which lasted for several hours accompanied by vomiting. She started sweating since her temperature is quite high. Furthermore, she developed shortness of breath and blood in bowel motions and urine.

For your information, her past medical history recorded an episode of allergic reactions due to uterine infection treatment in 1997. She also got a severe attack of TB in 1983 and in 1987 an operation for eppendyectomy.

For her future management, I believe she needs an abdominal CT scan which confirm her diagnosis.

Please feel free to contact me for any concern about this patient.

Best Regards
Carol and Kazue: Collaborative Writing Task 2, Draft 2

Dr. Ralph Emerson
Royal London Hospital
Whitechapel Road
Greater London E11BB
United Kingdom

Dear Dr. Ralph Emerson,

Re Mrs. Nicole Katie  DOB 12 July, 1971

I am writing this letter to refer Mrs Katie who is suffering from severe abdominal pain for further investigation.

Her first time appearance in our hospital was on 15th April due to stomachache which caused her indigestion. Although she took pain relievers and analgesics for two days, the pain worsened and began to radiate to her back and lower abdomen. She also noticed her urine color became darker. Moreover, she complained about some weight loss within 15 days since she found no interest in food and even vomited twice.

Three days later, she experienced severe pain which lasted for several hours accompanied by vomiting. She started sweating since her temperature is quite high. She developed shortness of breath and blood was found in her bowel motions and urine.

For more information, she had an episode of allergic reactions due to uterine infection treatment in 1997. She also got a severe attack of TB in 1983 and an appendectomy in 1987.

For her further investigation, I believe she needs an abdominal CT scan to confirm her diagnosis. Please do not hesitate to contact me if you need more information about this patient.

Best Regards
Dear Dr. Ralph Emerson,

Re: Mrs. Nicole Katie, DOB 12 July 1971

Thank you for seeing Mrs. Nicole Katie. Mrs. Katie was admitted to our hospital on the 15th of April 2005 due to suffering from severe abdominal pain.

Prior to being admitted to our hospital, the patient was not able to eat properly and was feeling a lot of pain in her stomach. The patient took some pain relievers which actually worsened the problem. The patient began to feel pain which radiated to her abdomen. She also noticed a change in the colour of her urine. The patient had also lost her appetite, causing her to lose approximately 2.5 kg within the course of 15 days.

During her stay at our hospital from April 15th to April 18th, the condition of the patient continued to deteriorate. On April 18th, the patient complained of much more severe pain which lasted for several hours. She experienced pain, shortness of breath and vomiting. Blood in her bowel motions and urine was also noted. The patient had a high fever and suffered from severe sweating.

The patient’s relevant medical history includes an episode of allergic reactions due to uterine infection treatment in 1997. She also had a severe attack of TB in 1983 and required an appendectomy in 1987.

Therefore, it is requested that an abdominal CT scan be taken for an accurate diagnosis of the abdominal pain.

Please do not hesitate to contact me if you have any queries regarding this matter.

Yours sincerely,
You have recently bought a DVD player from an online shop. The web page said that it would play MP3 discs but after taking it home you find out that it will only play CDs and DVDs. Write an e-mail letter to the store manager. In your e-mail: say who you are; explain the problem; say what action you would like the store to take.

Write at least 150 words. You do NOT need to write any address.

Begin your e-mail as follows:

Dear Sir/Madam

(Taken from Tyreman, 2012, p. 28)
To whom may it concern

I am SXXXXX. I bought a DVD player from your online shop then I received and used it. But I found out that it only play CDs and DVDs althoughs the web page said that it can play MP3 discs. So I would like to change a new one if I can’t solve this problem.

Kind regard,

XXXXXX
Dear Sir,

I am your custmer\textsuperscript{6}.

I bought a DVD player from your online shop one week ago. Then I received and used it today.

I found out that it could play CDs and DVDs correctly but MP3 player won’t working.

Although I checked the manual, I couldn’t discover how to solve. So I would like to change a new one.

Kinds regard

XXXXX

\textsuperscript{6} Even though \textit{customer} was misspelled in the second draft, it was included as a CKP because a correct solution was arrived at while discussing the spelling of the word in the feedback session and participants identified it as a CKP. After the correct spelling was arrived at, it was misspelt when writing out the draft.
Dear Sir/Madam,

My name is XXXXX and I am a new customer of your online store. On Monday I purchased a DVD player from your online shop with a view to playing MP3 discs, CDs and DVDs only to find that it will not play MP3 discs.

The web page stated that the DVD player was a new model capable of playing MP3 discs but this is not the case. I have tried to play MP3 discs but was unable to do so. The user manual states that it will only play CDs and DVDs and not MP3 discs.

I wish to exchange the model for one that will play MP3 discs. I do not wish to spend any more money so the replacement model must not be more expensive. If you do not have a suitable replacement, then please contact me by email so I can return the item for a full refund, including postage and packaging costs. Please let me know your postal address for returns.

I look forward to your early response by email, and I trust that you will update your web page so that it contains the correct information.

Yours faithfully

XXXXX

(Adapted from Tyreman, 2012, p. 198)
Some people believe that school students should be made to wear a uniform. Others think that children should be free to choose their own clothes. Discuss both sides of the argument. Do you agree or disagree with students wearing uniforms?

Give reasons for your answer and include any examples from your own experience.

(Taken from Tyreman, 2012, p. 130)
Natsuko and Yumi: Collaborative Writing Task 2, Draft 1

Can you add a sentence to introduce the topic?

If we have a uniform, student can learn about observe the rule and sometimes it might be protect them because people can notice who is the student. However, there are some problems. For example, the gender problem, too strict, no personality.

If we don’t have a uniform, student can choose whatever they want to wear. There is no problem for gender. Student spend more money for their cloth but they can enjoy to choose their outfit.

Our opinion is no uniform is better because We prefer to freely choose our cloth and student should have their personality.

---

These two sentences contained potentially identifiable information on one of the participants and as such have been redacted.
We had a discussion about a uniform. We would like to summarize our opinion. If we have a uniform, students can learn about observe the rule and sometimes it might protect them because people can notice who is the student. However, there are some problems. For example, the gender problem, strictness, personality. In addition, some strang people pay attention to a young girl who is wearing a uniform.

On the other hand, If we don’t have a uniform, student can choose whatever they want to wear. There are no problems like that. Students spend more money for their clothes but they can enjoy to choose their outfit.

In our opinion, students don’t need a uniform because we prefer to a freely choice about our clothes and they should have their personality.
There are arguments both for and against children having to wear a school uniform. Some people prefer uniforms because they look neat. Furthermore, uniforms show that a student belongs to a particular school, which may help teach students to obey school rules when they are not at school. School uniforms can also promote safety and security by making it easier to notice people who should not be on the school grounds. Finally, uniforms make choosing clothes easy for students.

On the other hand, some people do not like school uniforms. They think it reduces personal freedom and expression. Instead, students should be free to choose their own clothes rather than what the school decides. Many students do not like a school uniform because it means wearing the same clothes every day.

In our opinion, we think students do not need to wear a school uniform. We believe students should have the freedom to choose what they wear and express their personality through the clothes they choose. It is true that uniforms make it easier for students to decide what to wear to school, however students will one day need to learn to decide on what to wear to work. Therefore, learning how to dress appropriately is an important skill to learn.

(Adapted from Tyreman, 2012, p. 199)
Appendix 3: Retrospective interview sample questions

How was the experience of working in a team?
What were the benefits of working with a partner? What were the negatives?
How did you feel when you received the feedback?
What were the benefits of using a dictionary?
Did you feel like you wanted to speak in [your dominant] language?
Was the use of Japanese helpful?
Appendix 4: Participants’ Individual Writing Tasks

Task Instructions: Carol and Kazue’s Individual Tasks

Individual Writing Task 1

The graph below shows population figures for India and China since the year 2000 and the predicted population growth up until 2050.

Summarise the information by selecting and reporting the main features. Make comparisons where relevant.

Write at least 150 words.

Individual Writing Task 2

Patient History:

Mr. John Smith is a patient at your general practice. He is complaining of severe abdominal pain.
Name: John Smith; DOB September 3rd 1965

Social History
- Lives alone
- Retired
- Heavy alcohol use

Medical History
- High blood pressure diagnosed in January 2017; well-controlled now
- Depression, diagnosed 4 weeks ago; not yet under control
- No known allegeries

Medications
- Olmetec 50mg daily
- Zoloft, 75 mg daily

Symptoms
- Sharp pain (worsening over last 4-5 weeks)
- Pain is located in right upper quadrant of the abdomen
- Pain does not radiate
- Has been taking aspirin for pain – no relief
- Some nausea but no vomiting

Family history
- Mother died of a heart attack
- Father’s history is unknown
- No history of cancer

Using the information in the case notes, write a letter of referral for further investigation and a definitive diagnosis to Dr. Peter Cony, Wellington City Hospital, 38 Elizabeth St, Melbourne, 3000

Expand notes in complete sentences; use letter format
Individual Writing Task 3

Summarise the information by describing the main features of the graph and making comparisons where appropriate.

Write at least 150 words.

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Individual Writing Task 4

**Writing Practice**

Using the case notes, write a letter of referral for further investigation to:

Dr. Daniel Miller, Royal Melbourne Hospital, Collins St, Melbourne, 3000

Today is May 22\textsuperscript{nd} 2018. The patient is still in hospital.

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**Case notes**

**Patient:** Paul Hird

**DOB:** 25 September, 1975

**Social History:**

Married; retired teacher; 2 children
Family History:
Father died of bowel cancer; Mother’s history not available

Past medical history:
Heart attack (1992)
Allergic reactions to penicillin

May 2020
- Stomach pain for several days; lower stomach; no nausea
- Unable to eat properly; loss of weight
- Pain relievers – little effect
- Admitted to hospital

May 21 2018
- Symptoms worsened; severe pain, radiating to upper abdomen, lasted several hours
- Vomiting; blood in bowel motions; Urine a reddish colour

Plan:
Abdominal CT scan for accurate diagnosis
Speaking Task 6

The graph shows the percentage of methods of communication between the years 1970 and 2010.

Summarise the information by describing the main features of the graph and making comparisons where appropriate.

![Graph of Methods of Communication]

Speaking Task 8

The graph shows the percentage of methods of communication between the years 1970 and 2010.

Summarise the information by describing the main features of the graph and making comparisons where appropriate.

![Graph of Percentage of Telephone Usage]
Speaking Task 9

You have a patient who is very ill. You need to provide a summary of the patient’s condition, relevant medical history and recommended course of action to another doctor. You will do this orally, not by writing a letter.

Today is May 17th 2018. The patient is still in hospital.

Spend a few minutes examining the case notes. When the teacher says “start”, please start your presentation.

Case notes

Patient: George Bond

DOB: 15 September, 1973

Social History:
Married; Retired actor; no children

Family History:
Father died of bowel cancer; Mother’s history not available

Past medical history:
Heart attack (1992)
Allergic reactions to penicillin

May 15th 2018

- Stomach pain for several days; no vomiting
- Unable to eat properly; loss of weight
- Pain relievers – no effect
- Admitted to hospital

May 16th 2018
Symptoms worsened; severe pain, radiating to lower back
- Vomiting; difficulty breathing
- Blood in bowel motions
- Urine a reddish colour

**Plan:**

Abdominal CT scan ASAP; general surgeon to make accurate diagnosis

**Carol’s Individual Tasks**

**Individual Writing Task 1**

The following graph reveals the population growth of India and China since 2000 as well as the prediction of their growth until 2050.

It can be seen on the graph that India had lower population than China in 2000 which was 1 billion and 1.25 billion respectively. However, the rapid change in India’s population every 10 years was double in comparison with China. In 2030, both of them could meet each other in the number of people. India population could keep increasing and reach 1.6 billion while China population seems slightly go down after they cross.

**Individual Writing Task 2**

Dr. Peter Cony
Wellington City Hospital
38 Elizabeth St, Melbourne, 3000
Tuesday, May 15th, 2018

Re John Smith, DOB September 3rd 1965

Dear Dr. Peter Cony,
I am writing this letter regarding Mr. John Smith who appeared in my clinic with severe abdominal pain.

Mr. John is a well-known hypertention patient on going medication since January 2017. He is now under control with Olmetec 50mg daily. However, he has also been treated with Zoloft 75mg daily for his depression which was diagnosed 4 weeks ago. but not yet under control. Moreover, he is known as an alcoholism as well.

He has presented with a sharp pain worsening over last 4-5 weeks which located in right upper quadrant of the abdomen. His pain has not radiated as well as Released with taking aspirin. Some nausea were also noticed without vomiting.

For his accurate diagnosis, I would like to suggest that he needs a further investigation. Please feel free to give me any queries about this patient.

Yours sincerely

Carol

Individual Writing Task 3

The graph reveals the percentage of energy sources had been used in United Kingdom during the time from 1960 to 2010. As we can see on the graph, coal was the main energy being used between the years 1960 to 1990. It had dropped slightly after that and came to zero at the end of 2010.

Oil also has started in using at the same time with coal. However, the percentage of consumption never reached 40%.

The third energy which has been consumed since 1980 and became the most popular energy source in 2000 when it reached its peak as 40%.

The last one was nuclear had a slight progress and almost got the same usage as oil in 2010.
As a conclusion, coal was the most important source in the past which totally obsoleted in 2010. On the other hand, natural gas became the favorite energy in use.

Individual Writing Task 4

Dr. Daniel Miller
Royal Melbourne Hospital
Collin St, Melbourne, 3000

May 22\textsuperscript{nd} 2018

Re Paul Hird, DOB 25\textsuperscript{th} September 1975

I am writing this letter regarding Mr. Paul Hird who was admitted to our hospital two days ago due to abdominal pain on 20\textsuperscript{th} May 2018.

The pain has started for several days which located in the lower abdomen. He also noticed that he was losing some weights since he has lost his appetite. There was no nausea or other symptoms on the day he came to our hospital. Pain relievers were taken but did not help much.

Up to the following day, his pain became more severe and radiated to the upper abdomen. The symptom was really bad and lasted for several hours. Vomiting came up along with blood in his bowels was noted. URine color was also changed into Red.

Upon his past medical history, he has known as allergy to penicillin. Please note that his father passed away because of bowel cancer.

For his further investigation, I believe that abdominal CT scan is necessary for confirming his diagnosis. Please feel free to contact me in case of any queries.
Speaking Task 6

As we can see on the graph, the telegram and postal letter, letters started at the same time in one hundred, sorry, in 1970, but in the different level. The telegram which accounted for 35%, of communication and the postal letter is almost double. Hmm, ten years later, the postal letter, begin the most important communication, which accounted for 95%. On the other hand, the telegram became decreasing, after ten years and stop using at 1980. In 20 years of from 1980 to 2000, postal letter still play a very important role in communications, however the appearance of email after 1980 makes postal letter become less important. And, in 2000, email easily become more popular than postal letter. And then the postal letter keep decreasing steadily until 2010. Ah, another comparison between the email and Facebook. After the appearance of Facebook, the role of email still the same, but the postal letter decreasing.

Speaking Task 8

Ah, this graph, review the percentage of method, people communicate to the other between the years 1970 and, ah, 2010. Um, as we can see, as we can see in the graph, at the beginning, um, there is no mobile phone. Ah, 100% people use landline. And, about seven years later, the appearance of mobile phone, the usage of landline mobile phone was equal. Ah, it’s about 50%, of both and the landline, continued drop, until 2010. On the other hand, the mobile phone usage keep increasing until, until the same, keep increasing, and by the year of 2010, ah, the mobile phone usage reached a peak at 100%, reach it’s peak, was accounted for
100% and. On the other hand, ah, there is no landline usage, ah, by the end, um, after 2010, ah, for five, for five years, ah, from 2010 to 2015 there is no change, ah, in usage between mobile phone and landline.

**Speaking Task 9**

Hi, my name is Dr. Carol, I’m calling regarding my patient George Bond, ah, who was born in the 15th September, 1973. Ah, he was admitted to our hospital four days ago which, ah, which complained about his stomach pain, ah, for several days but without vomiting. Ah, she felt unable to breath ah, and um, she noticed, ah, he noticed that he, lose some weight, he’s lost some weight, and um, with ah, he had, he had took some pain killer, but it didn’t work. Ah, and, ah, the day after the symptoms ah, seem worsen and ah she, he got severe pain which radiating to the, his lower back. Ah, she felt, he felt difficulty to breath and, ah, also noticed some blood in his bowel motion. The other things is his urine, ah, become red in, ah, become red, and ah, he also have, ah, some vomit um, so, um, I’m referring to you ah, as a, very urgent CT scan, abdominal CT scan for him, to make a cor[rect], make a confirm diagnosis. Ah, Thank you.

**Kazue’s Individual Tasks**

**Individual Writing Task 1**

The line graph gives information about populations in India and China from the year of 2000 and prediction of that in the future, to the year of 2050.

In China, there were about 1,250 billions of people in 2000. The population has grown gradually until the present and is estimated to continue increasing at the top of approximately 1,450 billions by 2030. However, the figure is estimated to start decreasing being overtaken by India in 2030.

On the other hand, there were 1,000 billions inhabitants in India In 2000. Then Indian people have increased significantly until the present and estimated to
continue going up in the future. In 2050, Indian population is estimated to reach a number of 1,500 billions, which is 1.5 times larger than that in 2000.

Individual Writing Task 2

Dr. Peter Cony
Wellington City Hospital
38 Elizabeth St
Melbourne, 3000

16th May 2018

Re: Mr John Smith, DOB September 3rd 1965

Dear Peter Cony,

Thank you for your consideration and assessment regarding Mr Smith, fifty two years old men, who has been suffering from severe abdominal pain.

He has been suffering from sharp pain which is located in right upper quadrant of the abdomen without radiation to other parts for four to five weeks and it has been worsened. He has also been feeling nausea but there has been no vomiting. Although aspirin was taken as a pain reliever, it was not effective for his symptom.

As his relevant medical history, there is no episode of allergies. He had been diagnosed as high blood pressure last year and it is controlled well so far. He was diagnosed as depression four weeks ago and it has not controlled yet. With regards to social history, he consumes alcohol substantially. Ongoing medication is Olmetec 50mg daily and Zoloft 75mg daily.
I believe his deterioration of the symptom require further investigation and definitive diagnosis.

Please do not hesitate to contact me if you have inquiries regarding this.

Yours,
Kazue

Individual Writing Task 3

The line graph illustrate the proportion of energy source based on the types of energy from the year 1960 to 2010 in U.K.. Overall, coal which was the most popular energy source in the beginning became the least popular energy source at the end of the period. On the other hand, other types of energy, such as oil, natural gas and nuclear became more popular in 2010 compared with the earlier years.

In 1960, around 90% of energy was produced by coal. The proportion of coal decreased significantly to less than 10% in 2000 and continued to go down over the following ten years.

Oil consumption was only 10% in 1960. It increased gradually up to more than 30% in 2010. Natural gas, which came into use in 1980, grew rapidly and ended up at nearly 40% in 2010. Nuclear is also new type of energy which came into use in 1990 and steeply went up to 30% in 2010. These three types of energy sources ended at almost same proportion in the year 2010.

Individual Writing Task 4

Dr. Daniel Miller

Royal Melbourne Hospital

Collins St
Dear Dr Miller,

I appreciate your consideration regarding Mr. Hird, 42 years old male, who is suffering from stomachache. He admitted our hospital on 20th May due to lower abdominal pain which continued for several days.

He experienced the loss of weight as a result of loss of appetite. He took pain relievers, but the effect was slight. Therefore, he admitted our hospital the day before yesterday. Despite this, his symptoms deteriorated. His pain began to grow severe and radiate to upper abdomen which lasted several hours. He also vomited and presented the change of urine color to reddish. There was blood in bowel motions as well.

With regard to his past medical history, he has an episode of a heart attack in 1992. He has allergic reactions to penicillin.

I believe the deterioration of his symptoms require abdominal CT scan for the accurate diagnosis.

Please do not hesitate to contact me if you have any queries regarding this patients.

Regards
Kazue

Speaking Task 6
I’m going to describe the information about method of communication dividing
to the four categories: telegram, postal letters, email and Facebook. Overall, postal letter was dominant in the 1970 but it decreased following 40 years. And email and Facebooks was least popular in 1970 but it increased following 40 years and became more dominant than postal letter in 2010. Regarding postal letters it was 60, almost 65% in the beginning. It peaked at 1980 with 95% and then started to decrease significantly until 2010. On the other hand, email and Facebook was marginal in 1970. The usage was increased from 1980 in email and in 2000 email usage was dominant, more dominant than other three methods with 60, around 65%. And then levelled off until 2010. Facebook was marginal until 2000 and then turn to increase to 2010 finishing at 30%. Telegram was second largest proportion in 1970 with 35% which decreased significantly until 1980 and continue to decrease by 2010 which ends almost 0% usage.

Speaking Task 8

This line graph shows the percentage of telephone usage based on the two kind of telephone, landline and mobile phone, during the period from 1990 to 2015. In 1990, almost all people used landline phone but the number of people who use, ah, the percentage of telephone usage of landline decreased significantly until twenty two, until the year of twenty two, nearly, ah, nearly, with nearly zero percent usage and then the usage did not recover and continued the negligible usage until 2015. On the other hand, mobile phone usage was, ah, was near, marginal 1990, with nearly zero percent. And the usage increased dramatically until 2010, which reached at the top of nearly 100% and this figure continued following 5 years. In overall, landline phone usage decreased as mobile phone came into usage in nineteen nine, nineteen ninety. And, and now mobile phone usage is totally dominant compared with the landline usage.

Speaking Task 9

I’m ringing to, I’m ringing you to consult my patient who is in serious condition, for your investigation and treatment. The name of patient is George Bond and Mr. Bond is 44 years old male who is suffering from stomach pain and, which radiate
to lower back. It started form the day before yesterday and the pain getting worsen the day by day. Um, now he is vomiting and presented the blood in bowel motions and also he noticed a urine, a reddish colour ah, the change of urine colour and the colour is now reddish. He has a history, ah, medical history of ah, heart attack in 1992, and also have a episode of allergic reaction to penicillin. I, I believe that he need ab[dominal], he need to be examined by abdominal CT scan as soon as possible. Um, the accurate diagnosis is needed, so please come and see him now. Thank you.

**Task Instructions for individual tasks: Natsuko and Yumi**

**Individual Writing Task 1**

You recently purchased a new smartphone, the pebble 3.1, from an online shop names Logan. The web page stated that the phone has 3.5mm output jack for headphones. However, after receiving it, the phone does not have an output jack for headphones – only Bluetooth headphones can be used.

Write an email to the store manager. In your email:
- Say who you are;
- Explain the problem;
- Say what action you want the store to take.

Write about 150 words. Begin your email as follows:

Dear Sir/Madam

**Individual Writing Task 2**

Some people think it is a good idea to take a gap year before going to university. Discuss the possible advantages and disadvantages of taking a year off. Do you believe that taking a gap year is a good idea?

**Individual Writing Task 3**

You have recently bought a Chromebook XP12 (a type of laptop computer) from the online store Logan. The webpage said that it had a CD drive. However, after
receiving it you find out there is no CD drive. You cannot play DVDs on the laptop. You bought it because you wanted to play DVDs.

Write an email to the store manager. In your email:

- Say who you are;
- Explain the problem;
- Say what action you want the store to take.

Write about 150 words. You have 20 minutes to complete the task. Begin your email as follows:

Dear Sir/Madam

Individual Writing Task 4

Some people think that social media has a negative effect on society. It is making people lazy and stops them from socialising with others. Do you agree or disagree?

Discuss both sides of the argument. Give reasons for your answer and include any examples from your own experience.

Speaking Task 6

You recently bought a Panasonic Slim Compact Micro System from the online shop Logan. On the web page it stated that it can play music CDs and stream music via Bluetooth. After you received it, you found out that it does not support Bluetooth. When you bought this system, you wanted to play music from your smartphone via Bluetooth.

You have called the store and are about to leave a voice message. Explain the situation and what you want to the store to do. Don’t forget to leave a phone number for them to call you on. (Fake number is fine).

Speaking Task 8

You recently bought a Sony PlayStation 4 from the online shop Logan. On the web page it stated that you can play DVDs and MP3 discs on the unit. After you received it, you found out that you cannot play DVDs and MP3 discs on it. You can only play games. When you bought this unit, you wanted to play your DVDs and MP3 discs on the PlayStation 4.
You have called the store and are about to leave a voice message. Explain the situation and what you want to the store to do. Don’t forget to leave a phone number for them to call you on. (Fake number is fine).

Speaking Task 9

Some people think that it is better for boys and girls to attend separate schools. Others, however, believe that boys and girls benefit more from attending mixed schools. Discuss both these views and give your own opinion.

Give reasons for your answer and include any relevant examples from your own knowledge or experience.

When the teacher says “start”, please start talking.

Natsuko’s Individual Tasks

Individual Writing Task 1

My name is Natsuko. I’m a your new customer. I purchased a new smartphone, the pebble 3.1 from your shop by online, then I recently received it.

I saw your webpage state that the phone has 3.5mm out put jack for head phones. However, the phone I received doesn’t have an out put jack for head phone. Only Bluetooth head phones can be used. This is a bit plobrem for me because I purchased it with a view to call with my head phone cable.

I’d like to get full refund if your web page stated incorrect information. Please let me know your address for posting. I’d send you this phone.

your faithfully

Natsuko
Individual Writing Task 2

There is the argument about to take a gap year before going to university.

If we could take a gap year, we would get lots of profit. For example Because we can spend enough time to go to trip, to expand community, to join a volunteer and to do whatever we want to do!

That must give us extra experiences that couldn’t get when we’re student.

On the other side However, we also need enough money to spend the a gap year. Furthermore, I would say we need a purpose. The reason why. If we get a gap year without any purpose, It could might be a waste time for us.

Finally, long holiday might change our mind to go back to university next year after a gap year.

As my conclusion, Although it depeps on the person, but I think taking a gap year is good idea. Actually, many university students come go to over the sea for working holiday or studying another language. for 1 year

If we have a gap before entry university, we don’t need to feel upset to for catch up to classmate.

Individual Writing Task 3

Hi. It’s Natsuko, your new customer.

I bought a Chromebook XP12 from the your online store Logan recently view to play DVDs.

I received it today and tried to play DVDs. However, There is not DVDs player even though your web page stated there has CD drive. I’d like to you make sure the statement and refund the whole paid payment include postage. Could you send me your address for posting this laptop?

I appreciate your faster reply.

Thank you

Natsuko
Individual Writing Task 4

I’d like to write about the argument about a effect of social media.

In a good point to stop to use social media, it could is easy to contact with someone, even we the people who are in far from our place. It makes us many connection to use a SNS group or something like that.

So I wouldn’t say that social media has only negative effect and it makes us lazy.

Nevertheless, I also agree the opinion because, we could contact someone in wherever we like at home, in the bed, on the coach, and even the bathroom! Of course it is comfortable.

We don’t need to go out with nice outfit and make up hair, face. That’s why I think social makes us lazy.

As my opinion, I disagree with stop and I would like to encourage to use social media proper as much as not get addiction. The reason why I got some em friends from social media when I was enter the university and I came to Australia. This opportunities are really made me fun in a real community. That’s not only in the media.

Social media makes us socialising.

Speaking Task 6

Hi, it’s Natsuko. I’m a new cust-, I’m a new, I’m your new customer. I recently bought a Panasonic Slim Compact Micro System from your online shop. And, I received it today. Ah, there is some problem, so I called you. The problem is, ah, Bluetooth phone work correctly. I bought this with view to stream music via Bluetooth. Also your webpage state it can, the system can use to Bluetooth. So, I’d like to change this machine for correctly or if, if your webpage is incorrected I’d like to refund all of, all of the, all of money, include postage for package. My, I left my number as following 0412 111 111. Please call me back. Thank you.

Bye.
Speaking Task 8

Hi, it’s Natsuko. I’m, I’m your new customer. I calling you because I have a some problem about your, your MP, PlayStation 4. I bought that recently and I received that today and I tried to play DVDs and MP3 disc but it doesn’t working. I saw the, I saw your page stated that you can, that it can play DVD and MP3 disc, so I would like to replacement or refund all of my money. Please call me back this number. Thank you. Bye.

Speaking Task 9

I’m talking about the school styles, which is the girls and boys mixed or separated. The good point of separated, ah, they, they don’t need to impressed for another gender student. So, they, they could be concentrated their class or study. And, the teacher could, the teacher could do teaching as same style for boys or girls. Other one, ah, the other hand, huh? (8 second pause) good point of mixed style is just fun, because they can have a relationship and try to make up or try to keep, mmm, try to keep, hmm (6 second pause), keep, keep, huh?, try to, try keep impress from someone. I think, ah, from my experience, I think the mixed style is better. The student can have a good experience from the school.

Yumi’s Individual Tasks

Individual Writing Task 1

My name is Yumi and new your costomer. Monday I purchased a smartphone, the pebble 3.1, from your online shop.

The webpage stated that the phone has 3.5mm output jack for headphones. However, after reciving it, I found that the phone does not have it.

I wish the phone will be exchanged to another one which has an output jack for headphones.
Individual Writing Task 2

There are arguments for and against to take a gap year before going to University. It have some advantages, for example, the person who takes a gap year can get more experiences. It is difficult for teenager to get experiences outside school so It might be very important things for them to take a gap year.

On the other hand, if you take a gap year, you have to spend a lot of money and time. You might be able to catch up with people who have alreary gone to a university one year ago.

In my opinion, It is good idea to take a gap year.

I think it have advantages more than disadvantages.

If you take a gap year, It is difficult to catch up with another person quickly. But when you graduate from your university.

Individual Writing Task 3

Hi, I am Yumi and your customer. I bought a Chromebook XP12 from the online store last week and I received it today. Your webpage said that it had a CD drive but after I recived it I found out there is no CD drive.

The reason why I bought it is that I wanted to play DVDs so I want you to exchange to another one which can play DVDs.

Kind regards

Yumi
Individual Writing Task 4

There is the argument about social media.

Social media is very useful for us. It can connect to person in internet. We can communicate someone easily and quickly so these days a lot of people keen on social media.

However, I think it has a negative effect on society.

In social media, we don’t need talking face to face. As we can’t look other person’s face, some people might not be able to considerate about feeling of the person who is talking with them.

In my case, when I am talking sometimes my friends don’t listen because they keen on social media and they want to communicate using internet.

In my opinion, social media is making people lazy and stops them from socializing with others.

Speaking Task 6

Hi, my name is Yumi. I’m your customer. So, I recently bought a Panasonic Slim Compact Micro System from your online shop. On the webpage said that it can play Bluetooth. So, I wanted to use Bluetooth, so I bought it and after you, after I received it, I found out it does not support Bluetooth. So, I want to, I want to change the another I, I would like to change another stereo which can use Bluetooth. So, if possible, if possible could you return, could you call back. My number is 777 55 444. Thanks. Bye.

Speaking Task 8

Hi, my name is Yumi. I’m your customer. I bought a Sony PlayStation 4 from your online shop because I want, I want to play PlayStation and play DVD and MP3. So your, on the your webpage said that the PlayStation can play DVD and MP3 disc. But, after I received, today I receive it, I found out that this one cannot
play DVD and MP3 discs. I would like to replace another one can use DVD and MP3 discs. I, my number is 000 000 000. Please call me back. Thank you.

Speaking Task 9

I’d talk abo-, I would like to talk about girls or boys schools. The school have some average. For example, they can, they can do same teaching style. They can’t, they don’t have to impress girls or boys. So they can concentrate to study. However, mixed school also have some advantage. So, in mixed school student can learn about each other. And they can grow up together. In my opinion, mixed school is better. Even student impress boy or girl, after that they broke up. I think it is very good experience in their life. So I think mixed school is better. Thanks.
Appendix 5: Ethics approval

Memorandum

To: Dr Michiko Weinmann & Dr Rod Neilsen
School of Education

From: Faculty of Arts & Education Human Ethics Advisory Group (HEAG)

Date: 23 February, 2016

Subject: HAE-18-011

Writing Buddies: The co-construction of the ZPD via Written Corrective Feedback

Please quote this project number in all future communications

The application for this project has been considered by the Faculty HEAG under the terms of Deakin University’s Human Research Ethics Committee (DUHREC).

Approval has been given for Mr Nicholas Carr, under the supervision of Dr Michiko Weinmann & Dr Rod Neilsen, School of Education, to undertake this project from 23/02/2018 to 23/02/2022.

The approval given by the Faculty HEAG is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Faculty HEAG immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time.
- Any events which might affect the continuing ethical acceptability of the project.
- The project is discontinued before the expected date of completion.
- Modifications are requested by other HRECs.

In addition you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

The Faculty HEAG and/or DUHREC may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007).

Robyn Finnewski
Acting HEAG Secretary
Faculty of Arts and Education
Appendix 6: Selected excerpts from video-recordings

**Interaction A1.2**

226  Carol:  ahh, describe, past tense, past tense
227  Kazue:  past tense?
228  Carol:  I think so, because I can’t find a (another error in the sentence), a trend of consumption (reading from draft 1)
229  Kazue:  consumption,| you, you can, maybe|
230  Carol:  | or you can say| the consumption trend of four different types of fuels because too many of, of (too many prepositions in the sentence)
231  Kazue:  maybe we had better put ‘in’ (for trend in) |or|
232  Carol:  |or we| can say the (starts writing suggestion down on a piece of paper) consumptive (ive emphasised) trend (laughs] no, I don’t think so, ah the
233  Kazue:  maybe, ahh, I not sure if it’s XXXX, ahh, I’m not sure,
234  Carol:  okay, just give it, ah like, present (present tense for describe) because I think it’s because of the word we use
235  Kazue:  yeah, maybe (8 second pause) the trend in (6 second pause) describes the consumption of four different types of fuels
236  Carol:  yeah

**Interaction A2.2**

207  Kazue:  so maybe I, ah, I need to write here, hmm, (Kazue comes back to her argument that more information was required in the second paragraph) about the more information about wood because we all, ahh, described about the other energy sources change so we need to say ah, the wood |decreased|
208  Carol:  |yeah| or we should use the |information here| (in the conclusion)
209  Kazue:  |but it’s conclusion|
210  Carol:  I think it’s alright because we, I think we, we needn’t, we needn’t describe all the information here, we choose the important things and we can put in in the conclusions as well
Kazue: hmm (appears to express doubt with intonation) ahh, so something XXXXX

Carol: yeah, because wood is important energy source in the past and it's going down, going down ahh

Kazue: so we have need to write if we are going to write 150 words (points to task instructions)

Carol: yep

Kazue: we write |more|

Carol: |add more|

Kazue: so we need, had better put more information

Carol: mm, mm, mm,

Kazue: about wood here (paragraph 2) and we need to write more here (conclusion) (both laugh), so ahh, it’s too short maybe hmm, XXXXX, so let me think about the “at the beginning” so

Interaction B9.2

Carol: level, level off

Kazue: level off, after about

Carol: hmm, level off, level off (low volume, no eye contact)

Kazue: after about, hmm, level off, after, hmm (low volume, no eye contact; looks deep in thought)

Carol: level off, this is like decrease a little bit oil, oil

Kazue: rose quickly over the next 50 years before level(ling) off after about, okay, okay

Carol: after about

Kazue: before, is a little bit confusing because there is a before and there is after

Carol: before levelling off

Kazue: after about

Carol: that means about one, um, 1970 this become going down a little bit, a little bit going down, right?
Kazue: hmm (rising intonation) no, ahh, level off means, ahh, just ahh, increase, stop the increasing, so (gestures with hand to show a sharp increase levelling off)

Carol: level off, that means steady?

Kazue: stay steady,

Carol: steady?

Kazue: become steady, so I, so

Carol: levelling off (writes on note pad)

Kazue: level off

Carol: I thought that level, level off means ahh

Kazue: and I think there’s another, another words, same meaning

Carol: same meaning of level off?

Kazue: yes, there’s another word, word, I studied but I forget (laughs) flatter

Carol: I have no idea (laughs)

Kazue: flatter? Flatten (says very slowly, seems unsure of pronunciation) I’m, I’ll check later yes, but, ahh, I think it’s common

Carol: ahh we can use dictionary, no worries? (picks up smart phone, starts to use)

Nicholas: dictionary use is okay

Kazue: flatten

Carol: let, let, let me check, let me check

Kazue: or we can say “reach a plateau”, plateau

Carol: ahh, that means stop, stop increasing

Kazue: yes, yes, so

Carol: or being reduced (appears to be reading from online dictionary)

Kazue: so we can also say ‘reach a plateau’

Carol: yeah (not really listening to Kazue, more reading the dictionary) finally level off after very (appears to be reading from dictionary) ahh, okay, okay, okay, understand

Kazue: flatten I’m not [sure], flatten, XXXXX, I’m not sure
Interaction B14

179 Carol: stop increasing or (makes a note in note pad)

Interaction B14

181 Carol: that means we needn’t compare, too much comparison, we can do it separately, like ahh, one by one,

182 Kazue: yes

183 Carol: easier

184 Kazue: yes, yes, |easier| (nodding in agreement)

185 Carol: |yeah| because if we make it, ahh, many comparisons, it’s complicated, because sometimes, mmm, like, so confused, (laughs)

186 Kazue: (laughs) yes so confused and while I confused what I’m talking about, this one or this one

187 Carol: yeah and we should make a comparisons in the last sentence, the last paragraph, right? That is concept.

188 Kazue: mm, oil use was holding steady and gas was, so coal, and oil and gas XXXXX

189 Carol: yeah, and use the, this, time for comparison

190 Kazue: yes, okay

191 Carol: yep

192 Kazue: I see (both participants look up at researcher to indicate they have finished)

Interaction C4

32 Carol: Mrs Katie who is suffering from severe abdominal pain for further investigation (reading sentence from typed up draft 1)

33 Kazue: what, ah, grammar?

34 Carol: grammar she presented the first time (reading from typed up draft 1)

35 Kazue: to stomach XXXXX for the (low volume, no eye contact)

(16 seconds silence)
Kazue: for the XXXXX (low volume, no eye contact) for the first time
[adding in ‘for’]? For the first time? Preposition. Preposition?
Presented for the first. Do I need for?

9 seconds of silence, Carol on smartphone

Kazue: She presented for the first time? (writing on scrap paper)

Carol: I can’t remember. Should we use for?
Kazue: for the first time (low volume no eye contact; 5 second pause) or
take away (delete)?
Carol: you want to
Kazue: she presented on
Carol: mm, yeah |maybe or|
Kazue: |because I, I| don’t need it this information anyway
Carol: yes or we can change to another sentence, because I’m afraid
it’s not enough, ahh, (words to meet the requirements of the
OET exam) ((Carol writes down suggestion on scrap paper; 21
seconds silence)

Kazue: mm, mm (nodding in agreement to suggested solution) I think
so
Carol: XXXXX sorry, I speak Vietnamese (laughs)
Kazue: no, no, no, that's okay

(Carol starts to note the suggestion on typed up draft 1; 17 seconds)
Carol: ah yes, so its first time (writing as speaking) appearance our
hospital I think, I think in hospital is better (writes something on
typed up draft 1)

Kazue: okay
Carol: yeah
Kazue: and she
Carol: and due to, due to stomach ache
279

Kazue: if the subject is?
Carol: the subject?
Kazue: is this one? (pointing to typed up draft 1)
Carol: yes subject is ‘Her first time appearance’ [this is ahh]
Kazue: [in our hospital] was XXXX
Carol: and the reason
Kazue: and so can I put ‘due to’ here (to connect to reason for admission)?
Carol: mm, it’s a linking, linking word
Carol: ah, yes
Carol: instead of ah, because stomach, because of stomach ache, use due to, mm?
Kazue: mm, or, and she presented stomach ache with, mm, she had, she had a stomach ache
(Carol starts writing suggestion on scrap paper; 7 seconds silence)
Kazue: and, and due to
Carol: I’ve written a, I’d write the full, full sentence, so we can read it again (writes on scrap paper) (Both Carol and Kazue read suggested response silently for 24 seconds)
Kazue: mm (nods with approval) maybe, mm, I think okay
Carol: yes ah, (starts to write on answer sheet)
(Kazue draws crosses out something on typed up draft; Carol appears to write out whole text up to this point, which takes 104 seconds; Kazue appears to be reading what Carol writes)
Carol: are you reading it? Are you okay with this?
Kazue: sorry, yeah, yeah, I think it’s okay
Carol: yeah, yeah, because I, I, write down, ahh, meantime you reading this. (lots of laughter)
Kazue: thank you, thank you

Interaction C7

Is there a better way to express ‘found no interest in food’
(reading WCF)
Carol: mm

Kazue: loss of appetite? She experience loss of appetite?

Carol: or yeah, I think we can, ah, reason, reasoning this weight loss because, ah, she, she got no interest in food

Kazue: some weight loss XXXXX because of the (8 seconds silence)

Carol: ahh, we can put since (writes since on typed up draft 1; starts writing on draft 2 paper)

Kazue: since, since her loss of appetite, since? Because of? (reads what Carol is writing) Since she had no interest, ah, okay (nods approvingly)

(13 seconds of silence, both look like they are deep in thought)

Carol: can I try like this, ahh (starts to write on scrap paper)

Kazue: She found no interest in food and take away (delete) moreover

Carol: Yeah, yeah (nods approvingly) and, ah, she even, mm, can I use that, or wanna change? |You want to|

Kazue: |She|

Carol: put a punctuation

Kazue: and she also vomited twice

Carol: mmm, I’m gonna read that she also noticed her urine colour became darker and some weight loss within 15 days and she since found no interest in food (reading edits)

Interaction C9

Carol: did she develop blood in bowel motions and urine? (9 sec pause), I don’t know, what this mean? (9 sec pause)

Carol: I don’t know, what this mean?

Kazue: ah, yes, I, I, might check the letter (Kazue starts searching for something)

Carol: medical history recorded an episode, oh (Carol laughs; Kazue stops searching and reads the WCF; 9 seconds of silence)
(14 seconds of silence)

255  Kazue:  the medical history recorded XXXXX huh?

256  Carol:  ah? No, no, ah, we, should, ah, fix this first furthermore

257  Kazue:  blood in bowel motion, mm, I couldn’t understand this meaning, so I just put it as same (as the case notes], |so I check the| (case notes)

258  Carol:  |furthermore, she developed| shortness of breath and blood in b, b, b, b, (Kazue is searching for case notes and looking away;

259  Kazue:  can I have the case notes
  (Researcher points to where case notes are; participants take and read)

260  Carol:  here, here

261  Kazue:  blood in bowel motions (reading from case notes) blood in bowel, (3 second pause) blood motions (laughs), blood in bowel motion, blood in (no eye contact; hand covering mouth as speaking)

262  Carol:  or we can change, ah, like this (starts to write down suggestion)

263  Kazue:  XXXXX blood in bowel motions (looking away, low volume), maybe blood in urine? (normal volume; then looks back in Carol’s direction)

264  Carol:  there is some, ah, there were some new (speaking as writing suggestion on scrap paper; 50 seconds of writing; Kazue looks back in Carol's direction and watches what Carol writes; then Carol puts a line through her own suggestion)

265  Kazue:  |there was some serious|

266  Carol:  |or I just XXXXX for the moment| she developed (writes down; 11 seconds of silence)
Kazue: and noticed? maybe, (looks at what Carol wrote), yes, she developed (shortness of breath had been written) and she found blood in bowel motion and urine? (looks at Carol)

Carol: hmm, yeah |and|

Kazue: |she found this one| (pointing to draft)?

Carol: um

Kazue: this |means she| experienced (shortness of breath) this one so

Carol: |also| yeah (nodding)

Kazue: this [blood in bowel motions and urine] is |she noticed| something

Carol: |also| yeah also (Carol writing, 9 second silence)

Kazue: so, ah, so, ah, and, and also noticed blood in

Carol: ah, I want to use the passive tense for, this question, ah, this information (blood in bowel motions and urine)

Kazue: past tense? (misunderstood pronunciation)

Carol: passive tense I mean the, ah,

Kazue: so can I (try writing) sorry (takes pen and scrap paper) I think, ah, maybe it’s wrong because

Carol: because of the meaning

Kazue: yes she doesn’t develop this one (blood in bowel motions and urine), she just found it

Carol: yeah (nodding in approval) so

Kazue: so she found, found blood, (looks at suggestion on scrap paper) also found (notes where it should go in sentence) okay (approving of what Carol wrote)

Carol: do you want to change to another?

Kazue: blood was found in her urine

Carol: can you read that?

Kazue: I can read that blood was found in her bowel motions XXXXX okay still I can’t understand this one (bowel motions) but that’s okay and then

Carol: so I write it down?

Kazue: I, I think it’s okay (Carol laughs) do we agree?
Interaction E4.2

87 Natsuko: no ‘but’
88 Yumi: I
89 Natsuko: found out (Yumi erases something from draft, appears to be ‘but’ that she has erased according to dialogue)
90 Yumi: I (writing as speaking; writes for 8 seconds), uh it? I found that
91 Natsuko: it could play (Yumi erases something on draft two)
92 Yumi: could play
93 Natsuko: what do you think? can play CD and DVD
94 Yumi: it could, could play I think could play CDs and DVDs correctly but (writing as speaking)
95 Natsuko: mm
96 Yumi: MP3 player won’t working (writing as speaking) also,
machigeata [I made a mistake] (erases something; writes again) all (looks very closely at draft one and own notes) although

**Interaction E4**

19 Natsuko: |I found out|
20 Yumi: |I found out| (both laugh)
21 Natsuko: sorry I found out that it only play CDs and DVD can play correctly, umm? no, no, no only play
22 Yumi: how did you find (out)? (reading WCF)
(49 second of silent reading/processing)
23 Yumi: huh?
24 Natsuko: MP3 player won’t working
25 Yumi: MP3 player (writes on draft one) won’t
26 Natsuko: w, won’t, w, o, n, working (Yumi writing as Natsuko dictates);
           w, w (produced as /w/)
27 Yumi: w (produced as /w/)
28 Natsuko: w (produced as /w/)
29 Yumi: w, w (produced as /w/)
30 Natsuko: w, or, |king|(syllables sounded out separately)
31 Yumi: |king|

**Interaction E4.1**

34 Yumi: and I found out that
(10 seconds of silence)
35 Yumi: and I found out that
36 Natsuko: ah but it only play CDs and DVD correctly but MP3 player
           won’t working
37 Yumi: correctly (low volume; starts to write on draft one) but
           (normal volume) MP player (low volume)
(9 seconds of silence)
38 Natsuko: your ahh
(22 second silence)
39 Yumi: manual the manual (low volume)
40 Natsuko: can we separate this sentence or together (‘from MP3 player won’t working’ and manual idea)

(8 seconds of silence)
41 Yumi: I think, ah, se- (starts to say separate)
42 Natsuko: separate is better|
43 Yumi: separate is better| yeah

(13 second silence)
44 Yumi: I think, ah, this sentence is, ah, don’t need (the sentence being: although the web page said that it can play MP3)
45 Natsuko: mmm, mmm (nodding)

(8 seconds of silence)
46 Natsuko: mm, (nods again)

(17 seconds of silence)
47 Natsuko: I checked your manual, this manual (looks at Yumi)
48 Yumi: this manual (writes down suggestion)
49 Natsuko: checked the manual, the (emphasised slightly due to change) the manual although I checked the manual but I, I couldn’t, I couldn’t discover solve this problem
50 Yumi: I couldn’t discover (whispering as writing) to? discover, I couldn’t discover
51 Natsuko: or find out?
52 Yumi: find out discover solve, ah, discover how to solve (occasional eye contact)
53 Natsuko: how to solve (Yumi writes on draft one)

**Interaction F3**
11 Natsuko: I know purchased meaning but I didn’t come up with this word
12 Yumi: yes, me too purchased a DVD player (reading example answer)
13 Natsuko: view to, with a view to playing MP3 discs (low volume; no eye contact)
Yumi: I can’t understand this
Natsuko: with a view to
Yumi: with a view to playing
Natsuko: neither, I, I don’t know this (makes eye contact) |view to| (low volume; no eye contact)
Yumi: |DVD player| from your online shop with a view to playing MP3 discs (low volume; no eye contact)
Nicholas: so I’ll just remind you if you want you can make a note on that paper that’s okay and if you want to use a dictionary that’s okay (Natsuko takes out pen and marks phrases on example answer; Yumi takes out some scrap paper)
Natsuko: ja fumei na tokoro [okay, let’s look at the sections we do not understand]
Yumi: mm
Natsuko: with a view to, only to find that it will not play (reading and underlining phrases) state

Interaction F4
Yumi: what mean state? (eye contact)
Natsuko: like say
Yumi: say
Natsuko: state, state (low volume, no eye contact)
Yumi: state XXXXX (low volume, no eye contact)
Natsuko: capable /kæpæbl/
Yumi: capa, capa /kæpæ/ capable /kæpæəbl/ (smiling) capable /kæpeɪbl/
Natsuko: capable /kæpeɪbl/ capable /kæpeɪbl/ (nodding approvingly)

Interaction G1
Natsuko: introduce the topic
Yumi: introduce the topic
Natsuko: we had, we had a discussion about uniform
Natsuko: then (Natsuko pauses and looks at Yumi; no reaction from Yumi) (12 seconds of silence)

Natsuko: we'd like to, we'd like to (looks away on repeat; low volume) (15 seconds of silence)

Natsuko: um we'd like to write the conclusion

Yumi: yes

Natsuko: *toriaezu koko ni kaku ne* [For now I’ll write it here (on the first draft)]

Yumi: *hai* [okay]

**Interaction H11**

1. Natsuko: student should be free to choose *toiu hyōgen ga* [the expression students should be free to choose]

2. Yumi: *ī* [it’s nice]

3. Natsuko: XXXXX [both Natsuko and Yumi laugh] *soko no free free freely choice ra hen kekko nayanda pointo datta kara* [because we found that section free, free, freely choice (from draft two) quite troubling]

4. Yumi: *ā tashika ni* [yeah, we sure did]

5. Natsuko: should be free to choose (reading example answer; no eye contact) (Yumi takes out highlighter to note points of interest; 6 seconds of silence)

6. Natsuko: should have, should have the freedom to choose (reading example answer; no eye contact)

7. Yumi: should,

8. Natsuko: should

9. Yumi: should have (highlights section of example answer)

10. Natsuko: the freedom | to choose |

11. Yumi: | freedom to choose |

12. Natsuko: XXXXX freely choose XXXXX (low volume)

**Interaction H2**

(16 seconds silence, both looking at example answer)
Yumi: neat **tte dōiu imi** neat [neat what does neat mean?]

Natsuko: *nani mo nai* [there is nothing]

Yumi: あ [okay] (Yumi starts to use smartphone)

Natsuko: *nani nani mo nai mitai na imēji* [an image of there is nothing] (Natsuko starts to use smartphone)

(10 seconds silence, both using smartphone)

Natsuko: あ | kirei da | [ah, beautiful] (low volume, no eye contact)

Yumi: あ | sukkiri [ah, clear] (found result on phone, looks at Natsuko)

Natsuko: え [huh?] (looks and sounds surprised)

Yumi: え [yeah]

Natsuko: え い imi nano [huh, is it a positive meaning?]

Yumi: neat /neʃo/ neat /neʃo/ (incorrect pronunciation)

Natsuko: some people prefer uniform (no eye contact, reading to herself; Yumi listening to pronunciation of neat via smartphone)

Yumi: neat /niːt/ neat /niːt/ (repeats after hearing correct pronunciation)

Natsuko: あ some people prefer uniform because *imi nan darō*

Yumi: XXXXX

Natsuko: look neat

**Interaction H3**

Yumi: … **koko** [here] obey to obey school rule *koko mo nanka nayandetta yo ne dō yatte* [this to obey the school rule, this was also a point we found troublesome, how to (write)]

Natsuko: *nan dakke* [what was it again?]

Yumi: ano doko da [ah, where was it?] (Yumi starts to search for corresponding sentence in draft 2; Natsuko continues reading reformulation)

Natsuko: え [yeah]

Yumi: about of the can learn about observe the rule (reading draft 2)
63 Natsuko: あ う う う [yeah, yes, we did]
64 Yumi:  to obey
65 Natsuko:  お び 、 お び 、
66 Yumi:  お び 、
67 Natsuko: お び 、 が わ か ら な い [I don’t know obey] (Natsuko starts to use smartphone)
68 Yumi: shitagu toka janai shitagau [it means obey (Japanese equivalent of obey used) obey] (second half at low volume, no eye contact, Yumi also uses smartphone after utterance)
69 Natsuko: shitagu [to obey]
70 Yumi: tashika [definitely]
71 Natsuko: あ [yeah]
72 Yumi: chigau [is that incorrect?]
73 Natsuko: う [looks like it yeah] (looks at Yumi to show her that she was correct)
74 Yumi: shitagu [obey] (low volume, no eye contact)
75 Natsuko: shitagu [obey] (low volume, no eye contact)

**Interaction H1**
17 Yumi: kono [this] bo (pronounced /bʊ/) both for
18 Natsuko: bo (pronounced /bʊ/; low volume, no eye contact)
19 Yumi:  と て ど い っ？
(9 seconds of silence; Natsuko leans in and closely examines example answer, 9 seconds of silence)
20 Yumi:  | tairitsu suru | [to oppose]
21 Natsuko:  | う | nanka aimai ni rikaishiteita kedo [I only vaguely understood it]
22 Yumi:  koko de | kiru | [cut it here?]
23 Natsuko:  | sanseii | to hantai no imi wo īmasu [it means to state agree and oppose]
24 Yumi:  う | [yeah]
25 Natsuko: mitai na hyōgen demo chanto rikai shiteinakatta [looks like an expression like that but I didn’t understand it properly]
there are argument both for
Yumi:  for, for tte | iu no ga | sansei da yo ne [for means to agree, doesn’t it?]

Natsuko:  | for | ē uso [huh, really?]

Yumi:  wakaranai kedo [I don’t know but]

Natsuko:  for

Yumi:  dōiu imi nan darō to omotte [I was wondering what it meant]

Natsuko:  un zenzen kangaienakatta [yeah, I didn’t think about it at all] there are argument both (low volume, no eye contact)

koko ni nani ka nakute mo tairitsu suru da yo ne [even if there was nothing here it still means oppose]

Yumi:  sansei to hantai [agree and disagree]

Natsuko:  for, for ga sansei datta [(for) is agree]

Yumi:  sansei da yo ne [for means to agree, doesn’t it?]

Natsuko:  ē uso [huh, really?]

Yumi:  for

Natsuko:  for

Yumi:  un [yeah]

Natsuko:  un [yeah] huh, for, for and against

Yumi:  un [yeah]

Natsuko:  de sanpi [it’s for and against] (looks surprised) ē [huh] for

Yumi:  sansei to hantai [agree and disagree]

Natsuko:  for, for ga sansei datta [(for) is agree]

Yumi:  un [yeah]

Natsuko:  both for against

Interaction B13

Carol:  level, level off

Kazue:  level off, after about

Carol:  hmm, level off, level off (low volume, no eye contact)

Kazue:  after about, hmm, level off, after, hmm (low volume, no eye contact; looks deep in thought)
Carol: level off, this is like decrease a little bit oil,

Kazue: rose quickly over the next 50 years before level[ling] off,
after about, okay, okay

Carol: after about

Kazue: before, is a little bit confusing because there is a before and
there is after

Carol: before levelling off

Kazue: after about

Carol: that means about one ahhm, 1970 this become going down a
little bit, a little bit going down, right?

Kazue: …no, ah, level off means, ah, just ah increase stop the
increasing so (gestures with hand to show a sharp increase
level off)

Carol: level off, that means steady?

Kazue: stay steady,

Carol: steady?

Kazue: become steady so I so

Carol: levelling off (makes a note)

Kazue: level off

Carol: I thought that level, level off means ahh,

Kazue: and I think there’s another, another words, same meaning

Carol: same meaning of level off?

Kazue: yes, there’s another word, (looks strained, trying to recall the
lexical item), word, I studied but I forget (laughs) flatter

Carol: I have no idea (laughs)

Kazue: flatten? flatten, I’m, I’ll check later yes, but, ahh, I think it’s
common

Carol: ahh we can use dictionary, no worries (directed at
researcher)?

Nicholas: dictionary use is okay

Kazue: flatten

Carol: let, let, let me check, let me check (uses smartphone)
Kazue: or we can say reach a plateau, plateau
Carol: ahh, that means stop, stop increasing
Kazue: yes, yes, so
Carol: or being reduced (reading from online dictionary)
Kazue: so we can also say reach a plateau
Carol: yeah (appears to not really be listening to Kazue) finally level off after very (reading from dictionary) ah okay, okay, okay understand
Kazue: flatten I’m not (sure) flatten, XXXXX, I’m not sure
Carol: stop increasing or (writes something in notebook)

Interaction C3
Kazue: so, d r is this XXXXX (Carol takes the lead, puts hand out to receive pen) here? (Carol notes something on draft) ah, I see, okay XXXXX in my language school I learnt
Carol: I think regard it’s not we don’t have ah (Carol uses smartphone)
Kazue: I just learnt like only this (appears to cover up ‘gard’ of regard to indicate on Re is more common; Carol briefly looks at Kazue’s suggestion, soon returns focus to smartphone) but I think it’s same (Carol stops using smartphone)
Carol: so we don’t have a colon, this is a colon right? (starts to note something on draft)
Kazue: ah, I’m not sure, mm, sorry, ah (takes pen back) I thought XXXXXX (grabs own notepad to write down suggestion and shows Carol) like this?
Carol: yes, I think so (Carol writes something on draft; returns to smartphone)
Kazue: semi-colon? colon?
(Carol continues checking via smartphone for 46 seconds, Kazue joins in looking at same smartphone)
25  Kazue:  maybe semi-colon? This one?
   (Carol and Kazue continuing searching for an example on Carol’s smartphone for 58 seconds)
26  Carol:  yes, r, e, r, e, right? (laughs) I think so and no, no colon
   (incorrect solution)
27  Kazue:  no colon? okay and there’s something? (points to screen of smartphone) ah, no
28  Carol:  so, XXXXX r,e, Nicole Katie and date of birth yep something like this yeah
29  Kazue:  Mr? Do I need to put in the? (said while reading and pointing at smartphone screen)
30  Carol:  ah (adds in Mrs on draft 1)
31  Kazue:  yes, Mrs okay, okay

Interaction D16
78  Carol:  our, our letter is enough, ah, word? (laughs]. Can I ask you a question?
79  Nicholas:  yes
80  Kazue:  ah, |word count|? (laughs)
81  Carol:  |our letter is| enough, ah?
82  Nicholas:  I’m not sure I’ll count them for you in a minute probably 180 to 200 so
83  Carol:  okay how can you count it so quick?
References


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