LONGITUDINAL DEVELOPMENT OF WORD SEARCH SEQUENCES IN ENGLISH AS A LINGUA FRANCA INTERACTION

AKI SIEGEL

Thesis submitted for the degree of
Doctor of Philosophy

Newcastle University

School of Education, Communication and Language Sciences

February 2016

Abstract

This study investigates the longitudinal development of L2 English speakers' use of word search sequences. Word search sequences are moments in talk when a speaker displays difficulty finding the appropriate linguistic item to convey the message that could be understood by the interlocutor. Word search sequences are the target object of this study due to their importance in achieving intersubjectivity in L2 interactions and progressing the conversation (Chiarenza, 2010; Kim, 2009; Kurhila, 2006). Despite its crucial role in interaction, little research has investigated how word search sequences are co-constructed and the interlocutors' influence on the L2 speaker's word search sequences in English as a lingua franca (ELF) interactions, where speakers do not share the same L1. Moreover, the development of the speakers and the changes of the use of word search sequences that occur over time in ELF interactions have not been documented.

Core participants were four female Japanese L2 speakers of English engaged in ELF interactions with 32 different students from 10 different countries at an international university dormitory in Japan. Video recordings across 22 months were collected, starting from the early stages of joining an ELF environment for their first time. Approximately 37 hours of video conversations were transcribed and analyzed using Conversation Analysis (CA) as the main method of analysis.

Initial analyses highlighted features of word search sequences in ELF interactions. The Japanese participants demonstrated (a) strong preference towards self-repair of self-initiated word searches even in ELF interactions through the use of candidate words, code-switching, semantic contiguity, gestures, and dictionary and (b) unique methods of initiating word searches using code-switching or what-endings. Furthermore, (c) the partners displayed a wider variety of responses towards the word search sequences than in L1-L2 interactions.

The longitudinal and quantitative CA analysis demonstrated that (a) there are large individual differences in the changes of word search sequence patterns, (b) participants display changes in their word search sequences as an adaptation to their interactional partner, and (c) the interactional partners displayed less other-correction to the word search sequences as time progressed.

Findings suggests that language development is neither linear nor an individual activity, but displays characteristics of a Complex Adaptive System (N. C. Ellis & Larsen-Freeman, 2009b; Seedhouse, 2010b) where non-linear adaptation is mutually accomplished between the interlocutors. This study advocates the need for a more holistic view of language development, which could lead to new avenues for language learning and applied linguistic research.

Acknowledgements

I would like to express my deep gratitude to my supervisor Professor Paul Seedhouse for accepting me as a PhD student, and supporting me to explore a new area of study. Your precise feedback at the right moments let me thrive and discover new findings. My huge thanks also goes to Dr. Adam Brandt for becoming my supervisor and giving me supportive feedback and encouragement from the very beginning of this academic journey. I would also like to thank all the members of the CA data session groups at Newcastle (MARG), Tokyo, and Kansai for their insights on my data. I learned so much that I couldn't have from just reading and analyzing alone, and the supportive and warm atmosphere helped me continue this research. I am also indebted to all the participants who let me have a glimpse of their everyday life outside the classroom in their international community. It was a pleasure to see the paths you took throughout your university life, from the very beginning to graduation.

My warm love and thanks goes to my mother who supported me when I decided to pursue my post-graduate degree and has continuously supported me throughout the years. Becoming a mother myself made me notice the hard work and patience it takes to raise a child, but also the joy it brings. Most of all, my deepest love and appreciation go to my husband, Joe. Your love, encouragements, and humor are why I am here today. Everyday we spend together is a gift. I could not have completed this project without you. Last, but not least, big kisses and hugs to my newborn son, Ken, who brings such joy to my life.

Abbreviations

CA	Conversation Analysis
CAS	Complex Adaptive Systems
CT	Complexity Theory
DA	Discourse Analysis
EFL	English as a Foreign Language
ELF	English as a Lingua Franca
ENL	English as a Native Language
ESL	English as a Second Language
L1	First Language
L2	Second Language
NS	Native Speaker
NNS	Non-native Speaker
SLA	Second Language Acquisition

Table of Contents

Abstract ..... **i**
Acknowledgements ..... **iii**
Abbreviations ..... **v**
Chapter 1. Introduction **1**
1.1. Introduction *1*
1.2. Focus of the Study *1*
1.3. Motivation for the Study *2*
1.4. Purpose of the Study *4*
1.5. Research Overview *5*
Chapter 2. Literature Review **7**
2.1. Introduction *7*
2.2. Defining English as a Lingua Franca *7*
2.3. Word Searches as a Discursive Practice *8*
2.4. Defining Word Search Sequences *12*
2.4.1. Word searches in L2 studies 13
2.4.2. Word searches from a CA perspective 15
2.4.3. Word search sequences in this study 17
2.5. Features of Word Search Sequences *17*
2.5.1. Features of word search sequences in L1 interaction 18
2.5.2. Features of word search sequences in L2 and ELF interaction 20
2.5.3. Other-repair 21
2.5.4. Elongating vowel-endings for turn-keeping 27
2.5.5. Normalizing and let it pass 27
2.5.6. Code-switching during word searches 29
2.5.7. Pre-emptive repair 29
2.5.8. Social epistemics and membership categorization 32
2.6. Chapter 2 Interim Summary *36*
2.7. Development of Interactional Competence *37*
2.7.1. Longitudinal CA-for-SLA studies 38
2.7.2. Developmental studies of word search sequences 40
2.8. Developmental Theories Used for Analyzing Interactional Competence *42*
2.8.1. Vygotsky 42
2.8.2. Situated learning theory 43
2.8.3. Non-theory driven, data-driven, usage based 44
2.8.4. Actual portrayal of L2 development in CA-for-SLA studies 46
2.9. L2 Development as Complex Adaptive Systems *50*
2.9.1. Complexity theory 50
2.9.2. Complex systems and complex adaptive systems 51
2.9.3. Language development as complex adaptive systems 52
2.9.4. Defining L2 learning and development 56
2.10. Complex Adaptive Systems in L1 and L2 Developmental Studies *58*
2.11. Principles of Complex Adaptive Systems *60*
2.12. Summary *64*
Chapter 3. Methodology **67**
3.1. Introduction *67*
3.2. Research Questions *68*
3.3. Method of Analysis *68*
3.4. Rationale of Research Design *70*

3.4.1. Case study versus cross-sectional ... 70
3.4.2. Length and frequency ... 72
3.4.3. Data analysis ... 73
3.5. Conversation Analysis ... 75
3.5.1. Background of conversation analysis ... 75
3.5.2. Approaches to conversation analysis ... 76
3.5.3. Emic perspective ... 77
3.5.4. Analyzing word search sequences longitudinally ... 77
3.5.5. Multimodality ... 79
3.5.6. Quantifying conversation analysis data ... 80
3.6. Considerations with Data Collection and Analysis Using Conversation Analysis ... 82
3.6.1. Validity ... 82
3.6.2. Reliability ... 82
3.6.3. Reflexivity ... 83
3.7. Summary of Conversation Analysis Approach for this Study ... 84
3.8. Analyzing Complex Adaptive Systems ... 84
3.8.1. Self-organization and adaption of many interacting agents ... 85
3.8.2. Non-linearity ... 86
3.8.3. Surface complexity arising out of deep simplicity ... 87
3.8.4. Sensitivity to initial conditions ... 87
3.8.5. Complex systems adapting feedback from the environment and from themselves ... 88
3.8.6. CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts ... 89
3.8.7. CAS display both homogeneity and heterogeneity ... 90
3.8.8. CAS display self-similarity on various scales and levels ... 91
3.8.9. There are universal properties of non-linear systems: Different systems behave in the same ways ... 92
3.9. Summary of Analyzing Conversation Analysis data as CAS ... 92
3.10. The Study ... 95
3.10.1. The Research Context ... 95
3.10.2. The Participants ... 96
3.10.3. The Procedure ... 97
3.10.4. Ethical Considerations ... 102
3.10.5. Transcription and Data Presentation ... 102
3.10.6. Limitations ... 103
3.11. Summary ... 104

Chapter 4. Word Search Sequences in English as a Lingua Franca Interaction ... 106
4.1. Introduction ... 106
4.2. Word Search Initiations ... 107
4.2.1. How do you say ... 107
4.2.2. Nanka, nani, nandakke, nante-iuno, nanda ... 110
4.2.3. What-ending ... 112
4.3. Candidate Solution of Word Searches ... 117
4.3.1. Candidate word ... 118
4.3.2. Code-switching ... 125
4.3.3. Semantic contiguity (Descriptions, explanations, and associations) ... 138
4.3.4. Gestures ... 143
4.3.5. Using the dictionary ... 148
4.4. Responses to Prosody-Marked Candidate Solutions ... 155
4.4.1. Confirmation ... 156
4.4.2. Correction ... 160

4.4.3. Candidate understanding 163
4.4.4. Requesting repair through partial or full repetition 166
4.5. Summary 168

Chapter 5. Adaptation in and through Word Search Sequences 171
5.1. Introduction 171
5.2. Changes in Overall English Language Proficiency 172
5.3. Changes in Frequency of Word Search Sequences 174
5.4. Ami's Changes of Word Search Sequences 179
5.4.1. Ami's overall frequency of word searches 179
5.4.2. Change in partner's orientation: Preference towards progressivity 180
5.4.3. Adapting to the partner's language development: Change in reason for using prosody-marked candidate solutions 185
5.5. Maya's Changes of Word Search Sequences 187
5.5.1. Maya's overall frequency of word searches 187
5.5.2. Change in effectiveness of candidate solutions 188
5.5.3. Change in partner's orientations: Preference towards progressivity 196
5.5.4. Adapting to the partner's orientation: Securing intersubjectivity 205
5.6. Yoko's Changes of Word Search Sequences 211
5.6.1. Yoko's overall frequency of word searches 211
5.6.2. Lack of change in partner's orientation 212
5.6.3. Emergence of word search initiations in Thai 217
5.6.4. Yoko's overall orientation to the conversations 219
5.7. Tomoko's Changes of Word Search Sequences 222
5.7.1. Tomoko's overall frequency of word searches 222
5.7.2. Responses to prosody-marked resolutions 223
5.7.3. Lack of orientation as a "learning opportunity" 228
5.8. Chapter 5 Interim Summary 235
5.9. Language Development and Complex Adaptive Systems 236
5.9.1. Self-organization and adaption of many interacting agents 237
5.9.2. Non-linearity 238
5.9.3. Surface complexity arising out of deep simplicity 239
5.9.4. Sensitivity to initial conditions 240
5.9.5. Complex systems adapting feedback from the environment and from themselves 241
5.9.6. CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts 242
5.9.7. CAS display both homogeneity and heterogeneity 243
5.9.8. CAS display self-similarity on various scales and levels 244
5.9.9. There are universal properties of non-linear systems: Different systems behave in the same ways 245
5.10. Summary of Language Development and CAS 245

Chapter 6. Findings 247
6.1. Introduction 247
6.2. Summary of Findings 247
6.3. Reflection on the findings on word search sequences in ELF interactions 249
6.3.1. Overall findings on word search sequences 250
6.3.2. Features of ELF Interactions 251
6.3.3. Epistemics stance 253
6.4. Reflection on the findings on development in and through word search sequences 255
6.4.1. Overall findings on development 255
6.4.2. Individual differences 256

6.4.3. The interlocutor and context-renewing 257
6.4.4. Quantification and language proficiency 257
6.5. Implications for Research on ELF Interactions 258
6.6. Implications for Developmental Research on CAS 259
6.7. Summary 261

Chapter 7. Conclusion 263
7.1. Introduction 263
7.2. Contributions to the Field of Applied Linguistics 263
7.3. Methodological and Analytical Considerations 264
7.4. Recommendations for Future Research 266
7.5. Closing Remarks 267

Appendices 269
Appendix A: Consent Form in English 269
Appendix B: Consent Form in Japanese 270
Appendix C: Background Questionnaire 271
Appendix D: CA Transcription Conventions 272

References 273

Chapter 1. Introduction

1.1. Introduction

The first part of this chapter describes the focal object of the study in relevance to its research field. This is followed by the motivation and purpose of the study, including an introduction to the research questions and methodology. The chapter finishes with the overview of the organization of the thesis.

1.2. Focus of the Study

This study explores the longitudinal development of English as a second language (L2) speakers' use of word search sequences in an English as a lingua franca (ELF) interactions. More specifically, it investigates the changes of word search sequences by Japanese L2 speakers of English over time and the changes of their interlocutors from a Conversation Analytic perspective in understanding development of interactional competence of L2 users.

Word search sequences are moments in talk when a speaker displays difficulty finding the appropriate linguistic item to convey the message that can be understood by the interlocutor. When word searches are initiated, participants in the interaction often work together in order to reach a mutual understanding (M. H. Goodwin, 1983b). Word searches are thus public displays and negotiations of the process of a search for the appropriate word that is understood by the interlocutors in order to achieve mutual understanding (Chiarenza, 2010; Kim, 2009; Kurhila, 2006).

The study focuses on word search sequences used in ELF interactions. ELF interactions are contexts where speakers are from different first language (L1) backgrounds and English is the "communicative medium of choice, and often the only option" (Seidlhofer, 2011, p. 7). Therefore, in ELF interactions where mutual understanding is co-constructed by

those who do not share the same L1, repairs, including word search sequences, have critical roles in interaction to avoid non-understandings or prevent misunderstandings (Mauranen, 2006).

1.3. Motivation for the Study

Although word searches are frequently found in everyday interactions with not only L2 speakers, but also with L1 speakers, word search sequences by L2 users have been considered as a sign of lack of linguistic knowledge or disfluency in speech (Hilton, 2008; Koizumi & In'nami, 2013). As such, word searches have been the object of research by many scholars in the field of L2 studies and applied linguistics (e.g., Kasper & Kellerman, 1997).

Recent studies, however, have demonstrated that word search sequences are not necessarily displays of lack of linguistic ability. Rather, studies using Conversation Analysis (CA) have found that L2 users utilize various interactional skills during word searches in reaching mutual understanding or locating the sought out word (e.g., Carroll, 2004, 2005; Greer, 2013; Kurhila, 2006; Theodórsdóttir, 2011). Thus the interactional competence of the L2 users displayed in interaction from a micro analytic perspective has started to gain attention of researchers in the field of applied linguistics.

Nevertheless, research in this area, especially in ELF interactions and language development is still at its early stages. For instance, there is a lack of documentation regarding the ways in which (a) word search sequences are organized and intersubjectivity is achieved in non-institutional ELF interactions, or (b) the change of word search sequences over time by L2 speakers from when they join an ELF context (i.e., entered an international university dormitory). Thus, studying word search sequences in ELF interactions and its longitudinal changes would benefit the understanding of the process of language development in naturally occurring interactions.

What is more, this study takes place in an unexplored environment of an international university dormitory in Japan. Despite Japan being a predominantly monolingual country, this university professes to be a "bilingual" environment where English is used as the common language. At this university, approximately half of the students are either L1 speakers of English or students with adequate L2 English skills to study at university in English. These students' Japanese abilities are usually very limited at the time of entering, with little or no formal instruction. The other half of the students are Japanese students who all have at least six years of formal English education at the time of entering. Therefore, English is used often as a contact language both in and outside of class. The on-campus dormitory where the study takes place has a similar student demographic of half non-Japanese and half Japanese students.

Dormitory interactions between L1-L2 or L2-L2 speakers of English have been documented analyzed using CA (e.g., Matsumoto, 2011; Park, 2007). However, these studies have been conducted in the United States, and never in an Asian ELF environment where the common language used outside the university campus is not English. Therefore, documenting and analyzing interactions in such an environment would contribute to our ever increasing knowledge of ELF interactions.

Furthermore, research has demonstrated that interlocutors have a consequential influence on speakers' performance (e.g., Oelschlaeger & Damico, 2000; Shea, 1994); speakers can speak more, seem more capable, or the just opposite, depending on the responses of the interlocutor. However, there is little research investigating how interlocutors may affect the performance of the L2 speaker's word search sequences and how the interlocutors' language use and interactional orientations may change over time.

In addition, L2 developmental studies often see development as linear and the context

as non-changing, whilst recent studies have started to document that language development has features of Complex Adaptive Systems (CAS) (Larsen-Freeman & Cameron, 2008a; Lee, Mikesell, Joaquin, Mates, & Schumann, 2009; Seedhouse, 2010b). Examining L2 development as non-linear adaptations of the speakers to their interlocutors while trying to achieve an interactional goal will allow deeper understanding of the process of language development.

1.4. Purpose of the Study

The purpose of this research is therefore largely two fold: to investigate (a) how L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations when the speaker shows trouble locating a lexical item, and (b) how the patterns of word search sequences used by L2 speakers of English in ELF interactions change over time. In order to achieve this purpose the following four research questions were set:

1. How do L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations where the L2 speaker shows trouble locating a word?
2. How does the interlocutor respond to word search recovery work by an L2 speaker?
3. How do interactional patterns of word search sequences change over time?
4. Is development of the participants' use of word search sequences linear or does it display the characteristics of a CAS?

Moreover, in order to answer the research questions and examine the phenomenon of word search sequences by L2 speakers in ELF interactions and its development, this study takes a longitudinal approach on naturally occurring conversations using CA as the main method of analysis.

Through answering these research questions the study argues that, (a) there are features of word search sequences in ELF interactions identified in this particular population that has not been reported in the wider population, (b) these features are not taught but emerge from the interaction, and (c) development of interactional competence is dynamic and non-linear, and is the result of adaptations of the speakers to their interlocutors.

This study aims to contribute to the field of applied linguistics by illuminating the dynamics of ELF interactions outside the classroom, and the naturally occurring interactional methods employed by L2 speakers in achieving intersubjectivity. The study also contributes to the field in understanding the longitudinal changes that occur in and through repeated interactions from an early stage of joining an ELF environment. What is more, this study adds to the emerging area of understanding language development as a non-linear process.

1.5. Research Overview

This chapter introduced the focal object, motivation, and the objective of this study. The final section will then outline the organization of the thesis.

In Chapter 2, literature relevant to word search sequences and L2 developmental studies on language use are reviewed. More specifically, studies on ELF interactions and development of interactional competence from a CA approach are reviewed. Based on this review, it is apparent that little research has been done on ELF interactions and longitudinal research on word search sequences using CA. Chapter 2 also reviews literature on CAS and its principles. It explains the relationship of CAS and language development and the recent expansion of research in this area.

Chapter 3 moves on to discuss the methodology of the current study, including the data collection procedure and method of analysis. Furthermore, the framework for analyzing development (i.e., CAS) is demonstrated.

The collected data is then analyzed in Chapter 4 and 5. Chapter 4 examines, through utilizing CA, the collective phenomena of word search sequences by the Japanese participants in the ELF environment. Based on the findings of Chapter 4, Chapter 5 then examines the individual changes of the participants over time in terms of their use of word search sequences in the interaction. Quantification of the instances is displayed at first in observing the overall phenomena. Then, CA analyses of the word search sequences and orientations of the participants to the interactions are displayed. In order to deepen the analysis of the development of word search sequences, CAS principals described in Chapter 2 are applied to the results from Chapter 5 and analyzed.

Chapter 6 will summarize the findings and discuss the implications of the findings to L2 language development and ELF interactions.

Finally in Chapter 7, contributions to the field, shortcomings of this research, and suggestions for future research will be discussed.

Chapter 2. Literature Review

2.1. Introduction

The purpose of this chapter is to establish the object of the study, word search sequences, in the field of applied linguistics especially from the perspective of discursive pragmatics; interactional competence as a discursive practice. Furthermore, the chapter aims to situate this study in the area of language development, in particular, the development of interactional competence in an English as a Lingua Franca (ELF) environment using Conversation Analysis (CA) as the main method of analysis.

Therefore, in this chapter, literature related to word search sequences, longitudinal studies from the CA approach, and the traditional framework for analyzing language development will be examined. Then, the chapter moves on to introduce a relatively new framework for analyzing language development, the concept and principles of Complex Adaptive Systems (CAS). This chapter will conclude by defining language development and highlighting the motivation for this study.

The methodology of CA and its theoretical underpinnings and shortcoming will be discussed in Chapter 3. In addition, specific examples of how the principles of CAS will be applied to CA data will be illustrated also in Chapter 3.

2.2. Defining English as a Lingua Franca

I begin by defining what ELF refers to in this paper. ELF is used here to refer to English spoken as a contact language between speakers from different linguistic and cultural backgrounds (Archibald, Cogo, & Jenkins, 2011). In other words, English is the lingua franca, the language shared by all interactants, used in order to achieve the fullest communication possible and achieve the communicative goals (Seidlhofer, 2011). Therefore, ELF includes speakers of English from all of Kachru's (1985) three circles, including speakers of the inner

circle (i.e., native speakers). As Jenkins (2007) states, “ELF is not limited to members of the expanding circle, and those who also speak English intranationally, whether they come from an inner or outer circle country, are not excluded from ELF communication” (p. 2).

Furthermore, ELF is understood as a language system that can operate as any native language (Cogo & Dewey, 2012), displaying its own lexical and syntactic patterns. Therefore, the English language in ELF and English as a native language (ENL) may show differences. Moreover, in ELF interactions, speakers not complying with native-speaker norms is a “legitimate manifestation of the language” (Cogo & Dewey, 2012, p. 19). Thus, word search sequences in ELF interactions may be different from those in ENL interactions. The next section will move on to establish the object of the study, word search sequences.

2.3. Word Searches as a Discursive Practice

The purpose of this section is to situate “word search sequences” in the area of applied linguistics. Word search sequences, especially the interactional methods employed to resolve word searches, can be understood as an interactional competence from the perspective of discursive pragmatics where meaning and actions are co-constructed in the talk-in-interaction.

“Interactional competence” has been used to describe a person’s ability to transfer one’s intentions to others with oral utterances and embodiment whilst drawing from the social and context-specific knowledge and expectations (Hall, Hellermann, & Pekarek Doehler, 2011; Kramsch, 1986). It can be said that interactional competence derives from Hymes’ (1972, 1974) concept of communicative competence. Communicative competence is the knowledge and ability to use language appropriately to the context (Hymes, 1972). The concept of communicative competence emerged as a counter argument to the school of researchers who supported the notion of “linguistic competence” (Chomsky, 1986), where language was analyzed isolated from the context. Hymes (1972) emphasizes the influence of

social dimensions on language and language use and maintains, “There are rules of use without which the rules of grammar would be useless” (p. 60). Although the social dimension to language has started to be recognized, the interpersonal aspect of language use still has to be recognized and validated.

Canale and Swain (1980) use the word communicative competence to refer to the relationship and interaction of the “knowledge of the rules of grammar” (p. 6) and “knowledge of the rules of language use” (p. 6). Within the framework of communicative competence, Canale and Swain (1980) include three different components: grammatical competence, socio-linguistic competence, and communication strategies, or strategic competence. However, as Young (2008) argues, Canale and Swain’s (1980) framework is basically the same as Chomsky’s idea of “competence” equaling “knowledge,” and they “simply add components” (p. 98) to Chomsky’s framework of linguistic competence. In other words, Canale and Swain (1980) included the social aspect of language, however they focused only on what people “know” and had yet to consider what people “do” in interaction.

Bachman attempted to bridge the “competence (know)” and “performance (do)” gap by proposing “communicative language ability” (Bachman, 1990; Bachman & Palmer, 1989). Communicative language ability is “both knowledge, or competence, and the capacity for implementing it, or executing that competence in appropriate, contextualized communicative language use” (p. 84). Although this was from a language testing perspective, Bachman acknowledged the importance of the action of using the language.

At about the same time, building upon research on communicative competence and as a challenge towards linguistic competence oriented standardized testing (e.g., ACTEFL), Kramsch (1986) advocated the importance of “interactional competence.” Coming from a sociocultural background, Kramsch describes interactional competence as “the discourse

parameters of language in use" (p. 369). Interactional competence is different from communicative competence in that it focuses on what people actually "do" in comparison to what people may "know." She provides examples such as being able to: (a) negotiate intended meanings (for instance by adapting one's speech to the listener), (b) anticipate the listener's response and possible misunderstandings, (c) clarify one's own and the other's intentions, and (d) achieve intersubjectivity (Rommetveit, 1976, 1985) among the participants (Kramsch, 1986).

Expanding on Kramsch (1986) and further developing the notion of interactional competence, Hall (1993, 1995a, 1995b) and Young and He (1998) recognized the interpersonal aspect of language use and the influence of the interlocutor on the interaction. Hall (1995b) calls it "interactive practices" and notes, "talk is comprised of interactive practices, structured moments of face-to-face interaction – differently enacted and differently valued – whereby individuals come together to create, articulate, and manage their collective histories via the uses of socio historically defined and valued resources" (p. 207-208). Similarly, He and Young (1998) distinguish communicative competence from interactional competence and stress that interactional competence is "co-constructed by all participants in an interactive practice and is specific to that practice" (p.7). In other words, interactional competence can not be attributed to an individual and can not be measured individually out of context.

Furthermore, Young (2008) appreciates interactional competence as "knowledge of the relation between language forms and the social context in which they are used" (p.105). He understands that an individual's competence varies according to the interlocutor, and that "interaction competence is distributed across participants and varies in different interactional practices" (R. F. Young, 2008, p. 105). He emphasizes that interactional competence is "not

what a person knows, it is what a person does together with *others*" (emphasis added) (R. F. Young, 2008, p. 106).

Expanding on He and Young (1998) and Young and Miller (2004) and coming from a conversation analytic perspective, Kasper (2006a) suggests interactional competence is the participant's capacity to:

- understand and produce social actions in their sequential contexts
- take turns at talk in an organized fashion
- format actions and turns, and construct epistemic and affective stance by drawing on different types of semiotic resources (linguistic, nonverbal, nonvocal), including register-specific resources
- repair problems in speaking, hearing and understanding
- co-construct social and discursive identities through sequence organization, actions-in-interaction and semiotic resources
- recognize and produce boundaries between activities, including transitions from states of contact to absence of contact (interactional openings, closings) and transitions between activities during continued contact. (p. 86)

In particular, she emphasizes the need to analyze pragmatics, which includes interactional competence, from a discursive approach. Discursive approach is a perspective deriving from discursive sociology (Bilmes, 1986) and discursive psychology (Edwards & Potter, 1992) that is based on the premise that social and psychological phenomena are constructed through and together in the turn-taking between the interlocutors. In essence, discursive pragmatics (Kasper, 2006b), including interactional competence, formulates that meaning and action are not only constructed *in* but also *through* social interaction.

Similarly, Hall and Doehler (2011) note that interactional competence includes:

> knowledge of social-context-specific communicative events or activity types, their typical goals and trajectories by which participant roles and role relationships are accomplished.....the ability to deploy and to recognize context-specific patterns by which turns are taken, actions are organized and practices are ordered...the prosodic, linguistic, sequential and nonverbal resources conventionally used for producing and interpreting turns and actions, to construct them so that they are recognizable for others, and to repair problems in maintaining shared understanding of the interactional work we and our interlocutors are accomplishing together. (p. 2)

To summarize, interaction competence is recognized not only as individual's linguistic ability in the sequential activity and sociocultural awareness of the interactional environment, but also a co-constructed practice between the interlocutors through the interaction in achieving and maintaining mutual understanding.

In this study, I therefore adopt their perspective of interactional competence by Young (2008), Kasper (2006b), and Hall and Doehler (2011), and will it use to refer to discursive pragmatics; interactional practices used *through* interaction in co-constructing meaning and action.

2.4. Defining Word Search Sequences

Now that I have situated the concept of word search sequences in the field, this section will move on to define the term "word search sequence" in the way in which it will be used in this study. Word search sequences in this study refer to self-initiated repair sequences where the L2 speaker displays difficulty locating an appropriate linguistic item which could be understood by the interlocutor.

2.4.1. Word searches in L2 studies

The term "word search" has been conceptualized in the field of applied linguistics as "communication strategies," "language-related episodes," or "repair" and has been widely recognized by researchers and practitioners.

Cognitive linguists in the field of applied linguistics and Second Language Acquisition (SLA) have labeled activities used by the L2 learners to deal with referential or lexical identification problems during talk as "strategic competence" or "communication strategies." Canale and Swain (1980) refer to this verbal activity as strategic competence and states, "This component will be made up of verbal and nonverbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or to insufficient competence" (p. 30). Thus, strategic competences are strategies used when one lacks the grammatical competence or sociolinguistic competence that is necessary.

Later on, Swain (1998) connects the phenomenon of word search to L2 instruction and refers to it as, "language-related episodes." She defines this as "any part of a dialogue in which students talk about the language they are producing, question their language use, or other- or self-correct" (Swain, 1998, p. 70). Language-related episodes are more inclusive in a way that it may include instances where there is no trouble producing a word, but one wants to confirm is meaning, use, or pronunciation.

Other scholars in the field of SLA see word searches as sign of "disfluency," "trouble," and "display of lack of linguistic knowledge" of the L2 learner (e.g., Hilton, 2008; Koizumi & In'nami, 2013). Oral fluency, which is characterized by a person's perceptions of ease, eloquence, and smoothness of speech, have been associated with person's general language proficiency (Housen & Kuiken, 2009). Therefore, from this perspective, hesitations

markers and pauses in speech are typical signs of lower language proficiency. Moreover, Hilton (2008) and Koizumi and In'nami (2013) claim that there are strong connections between a learner's lexicon size and oral fluency. In other words, they argue that the lack in L2 vocabulary knowledge is connected to the disfluency in speech, thus more L2 vocabulary instruction is necessary.

Nevertheless, how these researchers view L2 speaker's activities and attempts to reach mutual understanding with the interlocutor is still one-sided, meaning that the focus is only on the speaker and the listener's role in the conversation is ignored. As a result, the ways in which interactions and understandings are co-constructed in the talk-in-interaction cannot be analyzed.

From a sociolinguistic perspective, Færch and Kasper (1983) have defined communication strategies, which includes word searches, as "potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal" (p. 36). Tarone (1983) in the same book explains communication strategies as "a mutual attempt of two interlocutors to agree on a meaning in situations where requisite meaning structures do not seem to be shared" (p. 65). They refer to communication strategies as the phenomena when speakers face a problem in communicating a message due to a lack in their linguistic system and attempt to solve or avoid the problem (Færch & Kasper, 1983; Tarone, 1983).

The definitions and descriptions of communication strategies, strategic competence, and language-related episodes are broad concepts which these studies examine. Communication strategies or language-related episodes range from a simple check of a movie name to an expanded negotiation of a grammar form. In addition, as Tarone (1983) admits, these studies lack the interactional aspect of communication strategies. Little consideration is

given to the immediate interactional environment, including the speech of the interlocutor.

However, from a CA perspective (Sacks, Schegloff, & Jefferson, 1974), this phenomenon of recovering from a speaker's issue in completing their utterance is viewed more minutely on turn-by-turn basis, incorporates the interlocutor's utterances, and holds an emic view of the data. Below, I focus on how word searches are conceptualized from a CA point of view, that is, the process of the co-construction of intersubjectivity through the interaction rather than the individual behavior.

2.4.2. Word searches from a CA perspective

The phenomenon under investigation is referred to as a type of "repair" sequence by conversation analysts. In the field of CA, "repair" can generally be defined as a modification mechanism of a prior speech production (Schegloff, Jefferson, & Sacks, 1977). It is "the set of practices whereby a co-interactant interrupts the ongoing course of action to attend to possible trouble in speaking, hearing or understanding the talk" (Kitzinger, 2013, p. 229).

Repair is thus a mechanism used to restore or achieve mutual understanding among the participants of the interaction, and to return and progress the ongoing talk. This mutual understanding, or "intersubjectivity" (Rommetveit, 1976, 1985), refers to the shared perspective of the social world reality by the interlocutors. Therefore, in L2 or ELF interactions where shared perspectives, including the language being used, cannot be presumed, repair work becomes essential. As such, repair in L2 interaction has been frequently analyzed in CA studies (e.g., Hosoda, 2006; Kurhila, 2006; Seedhouse, 2004; Seo & Koshik, 2010).

Conversation analysts have distinguished between initiation of repair and the actual production of a repair (Schegloff et al., 1977). The initiation of the repair is when one highlights the trouble source in the prior talk and thus stops the flow of the conversation. The

speaker can initiate (self-initiated) or the hearer can initiate (other-initiated) a repair. Similarly, the repair work can be completed by the speaker (self-repair) or by the hearer (other-repair). Therefore, generally, repairs can be categorized into these four combinations: self-initiated self-repair, self-initiated other-repair, other-initiated self-repair, and other-initiated other-repair.

Scholars observing learning in the CA domain have distinguished between "repair" and "correction" (e.g., Hosoda, 2006; Seo & Koshik, 2010), and have debated on these two terms (MacBeth, 2004; McHoul, 1990). Schegloff et al. (1977) in their paper on repair note:

> The term "correction" is commonly understood to refer to the replacement of an "error" or "mistake" by what is "correct". The phenomena we are addressing, however, are neither contingent upon error, nor limited to replacement.... Accordingly, we will refer to "repair" rather than "correction" in order to capture the more general domain of occurrences. (p. 363)

Repair is a more general term that could be a "correction," but not necessary. Kurhila (2006) defines "correction" as "cases where an alternative version is produced to replace a linguistic unit which can be said to be erroneous according to the norms of the standard language" (p. 20). Although recognizing that what is considered "standard" is not always clear, she explains that in her L1-L2 speaker Finnish data only the L1 speaker did the corrections. However, repairs were done by both L1 and L2 speakers.

Analyzing classroom interactions, McHoul (1990) discovered that all other-initiated repairs involved a replacement of an error, thus were "corrections." In addition, these other-corrections were mostly other-initiated (or teacher initiated). Macbeth (2004), on the other hand, argues that "repairs" and "corrections" are different in nature. He argues "[c]orrection in classrooms is an identifying task and achievement of classroom teaching" (p. 705). Repair

in conversation and classrooms, in contrast are "tied to the practical achievement of common understanding" (p.729). Seedhouse (2004) explains that classrooms have different dynamics than mundane conversations, and dispreferred actions in conversations (other-initiated other-repair) are less dispreferred in classrooms due to its pedagogical goal orientation by the participants. Furthermore, repair and corrections in classrooms change according to the type of activity (Seedhouse, 2004).

This study takes place in the university dormitory, and although on campus, it is a non-institutional setting and "learning" is not omnirelevant to the participants. Moreover, in an ELF non-classroom environment, what is considered "correct" or "standard" could be negotiated. However, how language is negotiated in ELF dormitories has not been investigated in depth thus far. Therefore, in this study, I will use "repair" and "correction" with a view that correction is a sub-type of a repair.

2.4.3. Word search sequences in this study

Among the various types of repair, this study focuses on self-initiated repair sequences, in particular, word search sequences. Furthermore, word search sequence in this study is used differently from sequences which seek mutual understanding of referentials, such as object, place, and people names (e.g., Hayashi, 2005; Heritage, 2007; Kim, 2009). Rather, the study focuses on sequences in which participants initiate a repair through the display of hesitancy in formulating an utterance and display of having difficulty in finding the appropriate linguistic item to convey the meaning that the interlocutor would understand. This action of word search, as mentioned previously, can be understood as interactional competence where interactional work from the speaker and the listener is necessary in order to achieve mutual understanding.

2.5. Features of Word Search Sequences

This section will move forward in describing the features of word search sequences from a CA perspective. The section begins by introducing word search sequences by L1 speakers, and then more in detail of their use by L2 speakers. Specifically, the features of word search sequences in L2 and ELF interactions found through previous research will be examined. These L2 word search sequence patterns will later be compared and contrasted with the data from this study in Chapter 4.

2.5.1. Features of word search sequences in L1 interaction

In L1 speech, as well as L2 speech, the start of a word search sequences are usually initiated through turns-at-talk and embodiment in talk when the speakers displays difficulty in finding or producing a relative lexically or syntactically appropriate word or phrase to complete the turn. Hesitancy or indication of "trouble" is often shown through pauses, cut-offs of a word, sound stretches, or "uh"s and "uhm"s (M. H. Goodwin, 1983b; Schegloff, 1984; Schegloff et al., 1977). "Uh"s are also commonly found in the position in the object of the search (Schegloff, 1979). Brouwer (2004) suggests that speech perturbations such as "uh" can be considered as "possible pre-indicators of repair initiation" (p. 95) due to the tendency that repair initiations occur right after, but not always.

These speech perturbations are often followed by wh-questions (e.g., "what was her name") (M. H. Goodwin, 1983b) or "response cries" (Goffman, 1981b) such as "tch." Furthermore, studies have found embodiment that accompanies word searches. Whilst the speaker is conducting a "solitary word search" (M. H. Goodwin, 1983b) the gaze tends to go elsewhere than the interlocutor's eyes and the speaker displays a "thinking face" (M. H. Goodwin & Goodwin, 1986). The speaker often seeks mutual gaze when they invite the interlocutor to join the word search (C. Goodwin, 1980; M. H. Goodwin, 1983b; M. H. Goodwin & Goodwin, 1986). M. H. Goodwin and C. Goodwin (1986) have found that

depending on this existence of mutual gaze, the sequence afterward may change. For instance, if there is mutual gaze and the speaker is ready and invests the interlocutor to contribute to the word search, their contributions are acknowledged with tokens such as "yeah" and "right." In contrast, if there is not a mutual gaze and the interlocutor contributes to the word search, there is no acknowledgement. Therefore, word search and embodiment are closely connected.

Hayashi (2003), in his study of word searches with L1 Japanese speakers, notes that the above pattern with gaze work during word searches can be applied also to Japanese interactions. For instance, using *ano* (uhm) or *nanka* (like) as a delaying device, followed by self-addressed questions such as *nandakke* (what is it). However, he also found distinct features of Japanese word searches of using of distal pronouns such as *are* (that one) and *asoko* (that place) as "prospective indexicals" (C. Goodwin, 1996). This was accompanied by simultaneous iconic gestures to not only initiate a word search, but also at the same time to (a) indicate the domain of the word, (b) enhance the specifiability of the word at search, and to (c) invite co-participation to complete the word search.

Because word search processes are performed publicly, CA analysts argue that they have "significant interactional consequences" (Hayashi, 2003, p. 114). That is, the participation framework of the conversation shifts to solving the word search. As a result, the conversation is usually interrupted until the word search is completed or the interlocutors reach a mutual understanding. When both parties are satisfied that a common understanding has been reached, or there is no more need in pursuing the word, the interlocutors will return to the main topic of conversation.

The completion of a word search could be done through self-repair, other-repair, or at times no explicit repair but through an indication of understanding from the interlocutor. However, in terms of preference organization (Pomerantz, 1984), studies have shown that

self-correction or self-repair is the preferred action in word search sequences (Schegloff et al., 1977). Thus, compared to other-corrections, self-corrections occur earlier in the sequence with little hesitation and fewer turns, and as a result, more frequently.

2.5.2. Features of word search sequences in L2 and ELF interaction

Word search sequences by L2 speakers share much in common with L1 speakers' word searches. However, there are also features that are particular to L2 speech. In L2 interactions, Kasper and Kellerman (1997) describe that word searches occur when "a speaker wishes to label a concept for which she does not have the lexical resources, or where these resources are available but cannot be recalled, or where available and retrievable resources cannot be used successfully because of contextual constraints" (p. 8). Previous studies have shown that these sequences are often found in interactions involving L2 speakers (e.g., Brouwer, 2003; Greer, 2013; Kurhila, 2006).

Recent studies from a CA perspective have elucidated that there is a sequential pattern in word searches of L2 speakers (Kurhila, 2006), that word searches could be utilized as an opportunity for learning (Brouwer, 2003), that word searches are not necessarily indications of lack of linguistic knowledge (Kurhila, 2006), and that sophisticated interactional competence and awareness of the interactional environment is necessary. Moreover, studies have found that word search sequences are not unique to L2 speech, and that L2 word searches are not very different from L1 word searches (Gullberg, 2011; Kurhila, 2006).

The most common interactional environment in which L2 speaker word searches have been researched using CA is in L1-L2 speaker interactions (besides Greer, 2013 with multicultural bilingual interaction). These studies have found distinct features of L2 word search sequences, in particular relevant to this study; the patterns of other-repair, elongated vowel endings, "normalization" and "let it pass" behaviors, and epistemic stance and

membership categorization. Below I will introduce these distinct features found in L2 speaker word search sequences followed by the aim of this study.

2.5.3. Other-repair

Studies have suggested that other-repairs, more specifically, corrections, occur more frequently in L2 conversation than in LI conversation (e.g., Hosoda, 2006). However, several CA studies have demonstrated that this is not always the case, and self-repair is also preferred in L2 conversations (e.g., Firth, 1996; Hellermann, 2009a). Yet, other-repairs do occur, and knowing how they occur is crucial in understanding the nature of word search sequences. Other-repairs could be either elicited (self-initiated) or outright (other-initiated). The following section will synthesize previous findings on these two areas and the linguistic object of word searches.

The object of other-repair. Recent research have indicated the range of objects of other-repair; lexical items, grammar, pronunciation. Kurhila (2006) indicates that L1 speakers usually search for lexical items while L2 speakers search for lexical and syntactic items. She further found that L2 speakers often initiated grammatical self-repairs, even though L1 speakers did not respond to ungrammaticality in their speech (Kurhila, 2006). This tendency of L2 speakers' self-repairs of grammar is also found in L2-L2 speaker interaction (e.g., Kaur, 2009). Thus indicating that L2 speakers consider grammatical accurateness being important for communicating.

Brouwer (2004) investigated instances which she calls "doing pronunciation." In her study of L1-L2 speaker interaction and repair sequences related to pronunciation, she notes that not all pronunciation errors by the L2 speaker are corrected by the L1 speaker. Thus, the utterance does not become an error in the talk. She also indicates that it is "necessary for the interlocutors to agree on the nature of the trouble, and how it may be repaired" (Brouwer,

2004, p. 103-104) and it is also "necessary that the person who is being corrected in some way anticipates possible phonetic correction in order to recognize it" (Brouwer, 2004, p. 104). In other words, there needs to be a mutual agreement of the trouble and solution of the pronunciation in order for it to be repaired. Furthermore, Brouwer (2004) found that when pronunciation is corrected, the differences in the pronunciation were often regarding phonemes rather than phonetics, such as /ryksa;k/ and /rygsæk/, thus "engaging in learning which sounds of the language are distinctive" (Brouwer, 2004, p. 108).

Self-initiated by the L2 speaker. L2 interaction research on word searches have found L2 speakers often self-initiating other-repair (e.g., Brouwer, 2003; Hosoda, 2006). Initiation of a word search in L1 involves multiple layers as outlined in Section 2.5.1. In addition to these interactional strategies, L2 studies have also found distinct features of self-initiated other-repair word search sequences. For instance, in L1-L2 speaker conversations, the L2 speaker would occasionally stop the turn construction unit in progress or start a new side sequence to check the correctness of a lexical item or invite the L1 speaker to the word in search (Hosoda, 2006).

Brouwer (2003) on L1-L2 speaker Danish word searches displays multiple cases where the L2 speaker invites the L1 speaker to the word search using "word search markers." Word search markers are utterances where the speaker displays that that they are searching for a word, which also could be taken as requests or invitation for help. In L1 speaker speech, as mentioned earlier, speakers use wh-questions in word searches. These wh-questions in L1 word searches are ambiguous if they are referring to the self or other. However, Brouwer (2003) found that the L2 speakers' wh-questions often explicitly refer to the L1 speaker interlocutor's linguistic expertise by using explicit word search markers such as, "I don't know what it is in Danish," "Is it Danish?" "I don't know how to say it," "How does one say

it?" and "What does one say" (Brouwer, 2003, p. 540). Nevertheless, she notes that the "expert" role in the interaction "need not be a NS, or even a person who is generally better at the language, although this difference in language competence is the case in my data" (Brouwer, 2003, p. 542). And these explicit elicited word search sequences are not necessarily oriented to as "learning opportunities" (Brouwer, 2003) by the interlocutors.

In Wong's (2000b) collection of English L1-L2 interactions, speakers established a method of initiating a word search. The L2 speakers (L1 Mandarin) would use "how can I say/explain + *yeah*" in a turn-medial position to indicate a potential trouble in coming up with a word. Wong (2000b) discuses this "yeah" is in the slot for a candidate solution, thus indicates the continuation of the search and failure of finding a candidate solution.

Hosoda (2000) studied self-initiated other-repair sequences in L1-L2 and L1-L1 speaker peer talk in Japanese. Although these sequences were not all regarding "word searches," the participants in her study always used embodiments when self-initiating, and sometimes even without any verbal use. This study found that detailed analyses of embodiment are crucial when analyzing self-initiated repair sequences.

However, the interactional meaning of self-initiating a word search is debatable. Funayama (2002) maintains that in cross-linguistic interactions, "a word search initiated by a non-native speaker contains, perhaps more clearly, a request-answer dynamic between the less knowledgeable and the more knowledgeable, although this does not eliminate the collaborative, competitive, and negotiable nature of a word-search" (p. 53). Therefore, Funayama assumes the imbalance of linguistic knowledge manifested in initiation of word search sequences. Other researchers propose other scenarios: L2 speakers' word searches could be regarding the content of the talk (i.e., referential) (Kim, 2009; Park, 2007) and the positioning of the L2 speaker as the less knowledgeable by the L1 speaker could be refuted

(Park, 2007). Accordingly, careful analysis of each interaction is necessary to distinguish how the interlocutors orient to the self-initiation of a word search.

Embedded and exposed other-repair. Brouwer, Rasmussen, and Wagner (2004) have noted that linguistic corrections are not regularly done in L2 interaction (nor in L1 interaction) as this would hinder the progressivity of the talk. Although other-repair do not occur frequently even in L2 conversations (Hauser, 2010; Hosoda, 2006; Wagner & Gardner, 2004), when they do occur, they are often embedded rather then exposed (Brouwer et al., 2004; Hauser, 2010). Jefferson (1987) distinguishes between exposed corrections and embedded corrections depending on how the correction (or repair) is presented. Embedded repairs or corrections are cases where the "utterances are not occupied by the doing of correcting" (Jefferson, 1987, p. 95) and the conversation progresses while the correction is done in the ongoing course of talk.

In contrast, exposed repairs or corrections are when the "'correcting' has become the business" (Jefferson, 1987, p. 97) of the talk and is isolated from the prior topic of interaction. Exposed repairs can be understood as disagreements (M. H. Goodwin, 1983a) or instruction (MacBeth, 2004). Moreover, Firth (2009) argues that, especially in L2 interactions:

> the embedded repair format, in contrast to 'exposed repair', is interactionally 'safer' for the repairer (and, doubtless, the repairee), because it does not implicate in any overt way the repairee's language competence; nor does it make the repairer look as though he or she is interactionally taking the proficiency high ground. (p. 147)

Thus, embedded repairs are generally more common even in L2 interactions. However, as it will be shown from the data analysis, exposed repairs were frequently identified initially in the current collection of word search sequences.

Responses to other-repair. In L2 interactions, responses to the other-repair by the L2 speaker exhibit interesting features, and seem to expose the linguistic state of the speaker. Kurhila (2005) agrees with Funayama (2002) regarding the asymmetrical L1-L2 speaker dynamics during word searches. She found the L2 speaker accepting a candidate solution to a word search by the L1 speaker, even when the L2 speaker was clearly searching for a different word (Kurhila, 2005). Kurhila argues that this behavior echoes the linguistic authority that the L1 speaker possesses in L1-L2 interactions.

In a different study, Kurhila (2006) found L2 speakers not repeating the other-repair in institutional conversations, while repeating "corrections" in everyday talk, suggesting different interactional goals for different situations. What is more, Hosoda (2000) noticed when there was no uptake of the other-repair by the L2 speaker, frequently the L2 speaker showed lack of comprehension. Therefore, a detailed individual analysis of the response to the candidate solution (other-repair) is necessary for each sequence to clarify the speakers' orientations.

Candidate solution by the initiator. Attempted resolving of word searches by the L2 speaker in ELF interactions is also a moment in talk that could expose the speaker's linguistic knowledge. However, little has been explored in detail. Koshik and Seo (2012) identified three types of word search sequence patterns as shown below:

Type 1. Self-initiated/self-completed

A: initiates word search

A: provides solution

Type 2. Self-initiated/other-completed

A: initiates word search

B: provides candidate solution

A: confirms/disconfirms candidate solution

Type 3. Self-initiated self-candidate solution/ other-completed

A: initiates word search

A: provides candidate solution

B: confirms/corrects candidate solution

The third type of word search is when the speaker A offers a candidate solution to the word in search, often accompanied with a rising intonation, and had not been discussed in detail prior to Koshik and Seo (2012).

Rising of intonation used along with a candidate understanding (occasionally followed by a brief pause) is called a "try-marker" (Sacks & Schegloff, 1979). Try-marking is used when "a speaker anticipates that the recognitional form being used will on this occasion, for this recipient, possibly be inadequate for securing recognition" (Sacks & Schegloff, 1979) (p. 18). In other words, a try-marker in L1 speech "marks" a word when the speaker believes that the particular word choice may not be understood by the hearer.

However, Koshik and Seo (2012) warn that the learner's use of try-marking in a word search is ambiguous and could be used in four different ways. When used at the end of the word search it could be (a) proffering a candidate solution for confirmation or (b) eliciting a particular term by proffering a more general term or synonym. When used at the end of a possible candidate solution, it can be (c) eliciting confirmation of the content of their talk, or (d) eliciting confirmation of understanding.

Try-marking of candidate solutions in L2 word search sequences has been researched only between L1-L2 speaker interactions. Therefore, how try-marking of a candidate solution in a word search initiated by a L2 speaker functions in ELF interaction has yet to be investigated.

2.5.4. Elongating vowel-endings for turn-keeping

A feature of word searches known to be used by L1 Japanese speakers of English is the use of elongated vowel sounds during word searches. Carroll (2005) has found Japanese learners of English initiate word searches by using elongated vowels at word endings. Below is an example from Carroll (2005) between Japanese learners of English.

<Example 1: Carroll (2005, p. 210)>

```
1     S:   I wen' to::: Bedorow's university?
2          (0.13)
3     K:   ohn yeah good
```

In line 1, S initiates and sustains a word search through an elongated vowel ending. S then presents the solution with a rising intonation. S's use of rising intonation is ambiguous, checking the pronunciation or checking K's knowledge of the school name. Either way, S is able to keep and complete her turn and to progress the conversation. This then confirmed by K in line 3. Carroll (2005) also indicates how Japanese learners of English attempt to keep their turn using elongated vowel endings. Thus indicating that elongated vowel endings are indicating that a there is an ongoing independent search of a word, however, not necessarily inviting an other-completion of a word search. Therefore, the analysis of the use of gaze would be important in analyzing if there is an invitation to the interlocutor to join the word search.

2.5.5. Normalizing and let it pass

Contrary to L1-L2 speaker interaction researches have found where immediate repair after a word search initiation is commonly carried out (e.g., Kurhila, 2006), Firth (1996) found "let it pass" and "normalizing" strategies in L2-L2 interactions. In his study of ELF phone interactions at a Danish company, he found cases where "the hearer lets the unknown or unclear action, word or utterance 'pass' on the (common-sense) assumption that it will either become clear or redundant as talk progresses" (Firth, 1996, p. 243). In other cases, the

hearer was found to repeat a non-conventional word use to "normalize" (Firth, 1996) the word use, to make it seem as if it were conventional. Thus again, there were no indications of linguistic repair from the interlocutor. In his data set, repairs were initiated only with critical information such as spellings of names (Firth, 1996).

Similarly, corpus research has shown that ELF communication is content oriented, and "there is a focus on the content rather than the form of the message" (Breiteneder, 2005, p. 22-23). Therefore, ELF research demonstrates the lack of uptake of "non-native like" linguistic usage and the tendency towards mutual orientation to the content and progressivity of the conversation.

Similar instances were found in conversations between aphasia patients and their families (C. Goodwin, 1995; Oelschlaeger & Damico, 2000). Oelschlaegar and Damico (2000) found a wife of an aphasia patient showing "constructive adaption" to the husband's aphasia, thus carrying out a "normalized" conversation. The authors found the wife not repairing right after the initiation of a word search, but rather nod and provide visual feedback to support the speaking effort. Moreover, by providing the opportunity to participate the wife displays her identification of the "aphasia patient" as a competent speaker. When the wife provides the candidate word, the husband repeats the word to accept the accuracy. By repeating the word rather than using a "general acknowledgement" (Jefferson, 1973) such as "uh-huh" or "yes," Oelschlaegar and Damico (2003) claim the aphasic patient is showing, "his word search occurred *not because he couldn't say the desired word at all* but, rather, he couldn't come up with the word he wanted to say *just then*" (emphasis and contraction as in original) (p. 218). As a result, by just reading the transcript, it is difficult to distinguish that one of the participants is an aphasia patient.

Word search sequences in L2 speaker or ELF interactions can be similar to aphasia

patient interactions in terms of (a) word search initiation behaviors of the speaker, (b) normalization actions of the hearer, and (c) their membership categories of "non-native speaker" or "patient" being ambiguous depending on the cooperation of the interlocutor.

2.5.6. Code-switching during word searches

Code-switching is another feature found in L2 speaker's word searches. In cross-cultural conversations, code-switching is found to occur during word searches (Funayama, 2002; Greer, 2008, 2013; Mori & Hasegawa, 2009), and code-switching is usually identified in the position of the sought-for word. Therefore, depending on the sequence and the analyst, the interpretation of it varies. That is, the code-switching can be seen as an indication of the word search to the hearer, or an attempt of a self-repair.

Funayama (2002) suggests that "producing the word in a different language from that used in the ongoing interaction might be one way that speakers of different languages show others that they are searching for a word, but cannot find it in the other speaker's language" (p. 45-46). While Greer (2013) argues that self-repairs of self-initiated word searches explicates the speakers own preference of language, as well as "the knowledge of recipients' language preferences" (p. 115). In either case, as Mondada (2011) shows in her study of repairs, "practices of repair initiated within a team and in the language of the team are a recurrent technique to restrict participation to the co-members of that team"(p. 31). Therefore, code-switching is a resource that participants refer to in cross-cultural interactions during word search sequences, and does reflect the speaker's (a) own linguistic knowledge and (b) interpretation of the hearer linguistic knowledge and membership.

2.5.7. Pre-emptive repair

Previous studies have found another distinct type of sequences in ELF data, that is, pre-emptive repairs. Although not necessarily found in self-initiated word search sequences,

participants in the talk were found using “proactive” (Mauranen, 2006) or “pre-empting” (Kaur, 2009) strategies in order to avoid misunderstanding or non-understanding. Pre-emptive work displayed through self-repairs was found prior to when the speaker used a word in an unconventional way (Mauranen, 2006), when there was minimal response from the hearer through soft repetition, backchanneling or silence but before request for a repair was initiated (Kaur, 2009), when new ideas were introduced which could possibly cause non-understanding (Cogo, 2010), and when ideas were introduced in a language which other members may not understand (Greer, 2008).

Mauranen (2006) shows how proactive strategies such as clarification, self-repair and repetition are frequently used to ensure understanding and mutual intelligibility. She notes, “there were frequent self-repairs, in fact in almost every turn, and there were several instances of coconstruction of expressions and seemingly unsolicited clarifications and repetitions, which appeared to arise from a perception of the speaker in need of help” (Mauranen, 2006, p. 146). These proactive repair strategies were used especially in cases with unconventional word use. For instance, when the speaker was using the word “chapter” to describe a “paragraph,” the speaker used unsolicited multiple explanations to prevent incomprehension. This sequence suggests that participants show high level of language awareness and the willingness to cooperate and work towards preventing misunderstanding and incomprehension.

Similarly, Kaur (2009) found that participants in ELF talk orienting to assumed lack of shared knowledge by displaying multiple layers of interactive work. He found speakers re-phrasing or repairing when the previous turn was responded to minimally with silence or backchanneling (“mhh”) prior to avert problems or non-understandings. As a result, suppressing other-initiation of a repair from occurring. Kaur (2009) suggest, “[m]utual

understanding in ELF is therefore not perceived as a given but rather something that has to be jointly worked at and monitored on a turn-by-turn basis" (p. 120).

Cogo's (2010) multinational interaction data illustrate the participants' epistemic assumptions of the hearer's knowledge and actions to make *a priori* clarifications of an idiomatic expression. One of the speakers in the study translates the expression "*fleur bleu*" into English first, then provides the original expression in her L1, and finally provides the explanation of the expression. The speaker shows high sensitivity and awareness of this expression being culturally sensitive and prompts her to pre-empt which leads to avoiding any non-understandings. Cogo (2010) claims that pre-emptive work by the participants occurs due to the high variability of ELF speech and "knowledge of culturally specific expressions cannot be taken for granted but need to be co-developed and negotiated before being accepted as community resources of the shared repertoire" (p. 297-298).

Likewise, Greer (2008) in his study of bilingual group discussion found participants translating words for certain members prior to any initiation of repair. The translations were accompanied with a gaze to the L2 speaker in the talk even when the L2 speaker showed comprehension. Greer (2008) argues that this pre-empting act demonstrates members' tendency to ascribe a certain language preference and competence to others. Furthermore, it highlights the different membership categories in the talk while working to include the "othered" member. Thus showing the social function of pre-emptive repairs.

Therefore, pre-empting strategies are relevant to ELF talk, "as they show how mutual understanding in ELF is not taken for granted, but that speakers engage in a joint effort to monitor understanding at every stage of communication, even before nonunderstanding has taken place" (Jenkins, Cogo, & Dewey, 2011, p. 294).

From a pedagogical perspective, Murray (2012) argues that adopting pre-emptive

linguistic behaviors to avoid potential breakdowns in communication, code-switching, and borrowing from other languages may be departing from L1 speaker norms, "however, these strategies should not be viewed as indicators of deficit but rather as strengths that demonstrate developing competence as an ELF speaker" (p. 322) and therefore the use of pre-emptive linguistic behaviors should be encouraged among L2 learners. Nevertheless, whether this pre-emptive work in interaction is used by new members of ELF environments or not has yet to be investigated.

2.5.8. Social epistemics and membership categorization

The final but also important feature of L2 word search sequences is related to social epistemics (Heritage, 2012b, 2013; Raymond & Heritage, 2006) and the self- and other-positioning in the interactions in relation to linguistic expertise and goal orientation. As mentioned briefly in the previous sections on code-switching and pre-emptive repair, during word searches in L2 interactions, the member's identity, especially their "native speaker" or "non-native speaker" categories, come into play. CA studies have demonstrated that L1-L2 speaker categories are closely situated in interaction (Zimmerman, 1998), and are negotiated through talk. In particular, during word search sequences the language becomes the topic of discussion, consequently identities (or membership categories (Sacks, 1989a)) related to linguistic knowledge or cultural expertise become evident (e.g., Hosoda, 2006; Park, 2007; Siegel, 2015; Taleghani-Nikazm, 2014).

The way knowledge is managed in interaction is referred to as "epistemics," and is the different ways in which commitment is shown towards what one is saying and in which the speaker attitudes towards knowledge are reflected (Kärkkäinen, 2003). More simply, epistemics can be understood as "identity bound knowledge" (Raymond & Heritage, 2006, p. 678).

This notion was first introduced by Labov and Fanshel (1977) through A-events in which A knows but B does not, and B-events where B knows but A does not. In addition, Kamio (1994, 1997) describes the knowing and unknowing positions being on a continuum, and interactants having domains of information ("territories of information") that are relatively close or distant to them compared to their interlocutor. He further argues that this concept also encompass the understanding of not only who knows, but also who has the right to know the information and the right to express it (Kamio, 1997).

Drawing on these ideas, Heritage (2012a) addresses relative epistemic access on a scale ranging from more knowledgeable (K+) to a less knowledgeable (K-). He refers to this as "epistemic status" where "persons recognize one another to be more or less knowledgeable concerning some domain of knowledge as a more or less settled matter of fact" (Heritage, 2012a, p. 32). Heritage further differentiates epistemic *status* from epistemic *stance*, and uses epistemic stance in regards to how speakers position themselves or others.

An example of this can be understood through Heritage's (1984a) finding of "change of state" displayed by an "oh" token, which is an example of an unknown (K-) recipient of information visibly shifting to a known (K+) position and through talk. Heritage (2012a) demonstrates that the K+ and K- positions, or categories, are displayed through the sequential organization of talk, and the giving and receiving of information are monitored minutely and publicly. Therefore, analyzing assessment sequences and participants' display of K+ and K- positions in conversations have made participants' identities visible. Furthermore, the K+ and K- imbalance between the interlocutors drive the conversation forward (Heritage, 2012a).

This notion is exemplified during a conversation between a grandmother and another interlocutor in Raymond & Heritage (2006). The grandmother claims more knowledge of the grandchildren over the interlocutor, thus presenting her ownership of the grandchildren or her

identity as their grandmother. As Raymond & Heritage (2006) note:

> By examining how such rights to knowledge and action are shared by speakers, or how they are distributed between them, how they are respected or how they might be violated, and how they are used to establish agreement or how they might be used to foster conflict, we can begin to explicate how identities are produced and reproduced in specific episodes of interaction. In turn, this provides a window into how the complexity of social structure is produced and reproduced through actual conduct. (p. 701)

Therefore, knowledge and situated identities are closely connected, and become apparent through the orientation of the participants.

Hosoda (2006) analyzed word search sequence or repair work related to lexical items, between Japanese L2 speakers and L1 Japanese speakers. She found a similar phenomena where the L2 speakers "orient to themselves as a 'novice'" and their L1 friend "at that moment, as a language expert" (Hosoda, 2006, p.33) and these identities were co-constructed. Hosoda (2006) argues that a request for confirmation of a lexical item occurs when a current speaker considers that the information is within the hearer's "territory" (Kamio, 1994, 1997).

In contrast, Kurhila (2006) found L1 speakers immediately addressing the L2 speaker when looking for a name or a word, whereas L2 speakers initially addressing themselves and then turning to the L1 speaker. Kurhila (2006) claims that the L2 speakers, by referring to herself first, can demonstrate that she is potentially able to resolve the problem and display her competence as an responsible interactant.

Park (2007) collected L1-L2 speaker interactions in a university dormitory in the US. She found participants mutually undertaking L1 speaker and L2 speaker identities during word search sequences through initiation of other-repairs and doing other-repairs regarding

pronunciation correction or confirmation of word choice. However, Park (2007) also identifies cases where (a) identity of L1-L2 speaker shift from and to cultural, national, or ethnic identities within the same conversation, (b) other-positioning as an L2 speaker occurs through definition providence (when not necessary) but then is refuted, and (c) avoidance being positioned as an L2 speaker by aligning with the L1 speaker. Park (2007) makes it explicit that L1-L2 speaker identities are co-constructed and are in flux during interaction.

Siegel (2015) analyzed conversations by two L2 speakers of English longitudinally focusing on their self- and other positioning in word search sequences. She not only discovered that participants were utilizing and managing linguistic knowledge in constructing language expert or language novice identities, but also there was an increase in the "claims to linguistic knowledge" (Siegel, 2015) by one of the participants over time. As a result, in ELF interactions, categories of language expert-novice were found to be negotiable and also changeable over time.

Similarly, although it is not a word search sequence study, in an L1-L2 speaker interaction, Shea (1994) recognizes a phenomena where the L2 speaker is framed as less fluent and incongruent in the talk due to the turn-taking pattern and responses of the L1 speaker. Shea (1994) compared interactions between Japanese students, studying at an American university, and four different interlocutors. He reports that the Japanese students appeared more proficient in English in conversations where they had equal access to the floor and the L1 speaker was more cooperative in terms of turn-taking patterns. Thus, the L1 speaker interlocutor (or the linguistic "expert") has a significant influence over how the L2 speaker (or the linguistic "novice") is represented in the conversation regarding their position, including linguistic competence.

Therefore, analyzing the interaction from an emic perspective can highlight the self-

and-other positioning in terms of social membership and orientation towards "territory of information" (Kamio, 1994). Furthermore, the ways in which epistemic stance in terms of linguistic knowledge may be negotiated and change over time has not been investigated in depth, especially in ELF environments.

2.6. Chapter 2 Interim Summary

This section of the chapter described the focal object of the study, word search sequences. Word search sequences in this study are understood as self-initiated repair sequences which are conduced through displaying hesitancy in formulating an utterance and displaying having difficulty in finding the appropriate linguistic item to convey the meaning understandable to the interlocutor.

As we have seen, in order to have an informed understanding of what is happening in the interaction during word searches, an emic perspective of analysis, which includes embodiment, is crucial. Moreover, word searches in L2 interactions have features which may be different from L1 word search sequences. These interactional strategies could be considered as marking their non-nativeness. Nevertheless, L2 speakers are able to communicate their intentions and progress the talk at hand. Furthermore, some features have only been documented in L1-L2 speaker interactions, such as the use of rising intonation with a candidate solution. Other features have only been identified in interactions between advanced L2 speakers, for instance code-switching, normalizing, let it pass moves, and pre-emptive repairs.

However, whether relative beginner L2 speakers who are new to an ELF environment use these interactive strategies and patterns in word search sequences and whether the word search sequence patterns change over time has not been documented. Therefore, the following section of this chapter will examine previous longitudinal developmental studies of

interactional competence using CA, and at the same time conceptualize what "development" refers to in this study.

2.7. Development of Interactional Competence

Now that I have established the object of the research (i.e., word search sequences in ELF interaction) and the approach to it (i.e., discursive approach) for this study, in the following section I will set out my framework for documenting "development." In essence, "development of word search sequences" in this study refers to the result of non-linear adaptations of the speakers to their interlocutors while trying to achieve an interactional goal.

From a CA perspective, Markee (2008) states that development of L2 interactional competence involves:

> learners orienting to different semiotic systems—the turn taking, repair, and sequence organizations that underlie all talk-in-interaction, combined with the co-occurrent organization of eye gaze and embodied actions—and deploying these intersubjective resources to co-construct with their interlocutors locally enacted, progressively more accurate, fluent, and complex interactional repertoires in the L2. (p. 406)

However, Markee is unclear how development has been documented and measured, or how "learning" differs from "development." Therefore, it is prudent that these questions are clarified, as well as how the framework for this study was achieved.

Below I will first review the recently developing area of longitudinal studies of observing development of L2 interactional competence from a CA perspective, and indicate the missing aspect in the analysis. Then, I will define what "development" and "learning" refers to in this study, while introducing the framework of Complex Adaptive Systems (CAS) for the analysis of development.

2.7.1. Longitudinal CA-for-SLA studies

CA's classical assumption is the speakers' skills remain the same and thus analysts can examine the organization of interaction (Brouwer & Wagner, 2004), and CA was not originally intended to be used for tracking language development. According to He (2004), "CA is not concerned with the cognitive processes that enable the learner to absorb the interactional data internally; nor does CA address the process of learning over an extended period of time" (p. 578).

Nevertheless, researchers have suggested ways in which language acquisition and developmental research might be approached using CA, in classrooms (Brouwer & Wagner, 2004; Cekaite, 2007; Eskildsen, 2009; Hellermann, 2006, 2007, 2009a, 2009b, 2011; Hellermann & Cole, 2008; Markee, 2008; Pallotti, 2001; Pekarek Doehler & Pochon-Berger, 2011; Waring, 2013), one-on-one tutor or language exchange sessions (Dings, 2014; Hauser, 2013b, 2013c; Kim, 2009; R. F. Young & Miller, 2004), study groups (van Compernolle, 2010), online chat-rooms (Jenks, 2010), office hours (H. T. Nguyen, 2011b), phone calls (Brouwer & Wagner, 2004; Huth, 2006; Huth & Taleghani-Nikazm, 2006), study abroad homestays (Ishida, 2009, 2011), pharmacist-customer conversations (H. T. Nguyen, 2003, 2006, 2008, 2011a), and conversations at home between spouses (Wilkinson, Gower, Beeke, & Maxim, 2007) or parents and their offspring (Wootton, 1997).

These studies have explored various aspects of interactional competence, for instance, speech acts (Huth, 2006; Pekarek Doehler & Pochon-Berger, 2011; Wootton, 1997), repair sequences (Hellermann, 2009a, 2011), responses (Dings, 2014; Ishida, 2011; Waring, 2013), task openings (Hellermann, 2007), task participation (Hellermann, 2006; R. F. Young & Miller, 2004), phone call openings (Huth & Taleghani-Nikazm, 2006), discourse markers (Ishida, 2009), and negation (Eskildsen, 2012; Hauser, 2013c).

Wootton (1997) was one of the first to conduct a longitudinal micro-analytic study of development of interactional competence. From his detailed analysis of his child's L1 speech and interaction using CA across 12 months, he was able to unfold the process of the child's request development as part of the developmental of interactional and social cognitive competencies (Wootton, 1997).

Since then, there has been increasing numbers of longitudinal studies of L2 development adopting a CA analytical approach. As of 2014, 22 studies have employed a CA or CA informed approach in analyzing L2 development of interactional competence longitudinally. These studies are displayed in Table 1. The studies in the table are categorized by the way in which "development" is portrayed through the analysis, and then ordered by the published year. Studies that analyzed only one recording (e.g., Jenks, 2010; van Compernolle, 2010) were excluded from the table.

Duration of the data collection ranges from 4 weeks to 42 months (approximately 168 weeks). The target languages include Danish (Brouwer & Wagner, 2004), English (Eskildsen, 2011, 2012; Hauser, 2013b, 2013c; Hellermann, 2006, 2007, 2009a, 2009b, 2011; Hellermann & Cole, 2008; H. T. Nguyen, 2011b; Waring, 2013; R. F. Young & Miller, 2004), German (Huth, 2006; Huth & Taleghani-Nikazm, 2006), Italian (Pallotti, 2001), Japanese (Ishida, 2009, 2011; Ohta, 2001), Spanish (Dings, 2014) and Swedish (Cekaite, 2007). Fifteen of the studies were interactions between L1 and L2 speakers, where as L2-L2 speaker interactions were only 6 studies and were all classroom interactions.

Of the 22 studies, recordings *not* done in a institutional or language learning setting are only by Ishida (2009, 2011), at the residence of the study abroad homestay family. Otherwise, studies were conducted either in a university setting or related to a university course task, or situations in which "language learning" is the goal (language exchange, private

lessons). The majority of the recordings were naturally occurring, besides Huth (2006) and Huth and Taleghani-Nikazm (2006) which used role-plays of phone call interactions. Moreover, these two studies along with Waring (2013) had instructional interventions prior to observing the changes.

In order to advance our understanding of the development of interactional competence, Brouwer and Wagner (2004) expressed the need for a change in the approach to data collection; (a) an emphasis on microgenetic data collection, and (b) between the same speakers. However, as shown in Table 1, not all studies show the intervals of data collection and some studies have long intervals between the data collection sessions. Furthermore, Wootton (1997) and Hauser (2013b, 2013c) are the only two studies in which the conversation partners have remained the same. Therefore, these two factors, (a) data collection intervals and (b) fixed partners, need to be taken into consideration when collecting data.

2.7.2. Developmental studies of word search sequences

Only a few studies have been conducted on the development of word search sequences in talk-in-interaction, including L2 speakers. Brouwer and Wagner (2004) are one of the first to exemplify development during word search sequences. They introduce a Japanese learner of Danish, Tomoyo, and her use of repair initiation. During a 9 week recording of her interactions with L1 speakers, they found Tomoyo employing different repair initiators that would locate the trouble source specifically, at first from a general "what do you say," then to using a "repetition + try-marking" pattern, and then using "what does X mean." Therefore, they argue that Tomoyo is displaying an increase in the set of repair initiation techniques and engaging in longer sequences for maintaining intersubjective understanding (Brouwer & Wagner, 2004). Although the gained strategies were for clarification of understanding rather

than searching for a word, the study does suggest that there were changes in sequential repair work through interaction. Unfortunately, the article does not show empirical evidence of the change nor its timing and frequency of the usage.

Although not a longitudinal study, Mori (2010), analyzing word searches in L2 Japanese, indicates that the place-holder *are* (that) was used more with those who had more exposure to naturally occurring language use outside the classroom. Furthermore, a delayed and comparative analyses of word search sequences using CA demonstrated that by using *are*, speakers were able to avoid long word search side sequences and exposing their "less-than-fully-competent" (p. 34) identity. Therefore, even within self-initiated word searches, there are degrees of strategies that the speaker can use, some that would indicate more of a "fluent disfluency" (p. 33) than others.

Hellermann (2009a) analyzed classroom interactions of one participant across 18 months. He found that this adult learner of English showed an increase in self-initiated self-repair usages, thus displaying a similar preference as L1 speakers. Moreover, the participant was found expanding her use of different self-repair strategies. Thus, indicated that there is a pattern in repair, and changes in the pattern of one participant could suggest "development." He argues, "change in a learner's practice for doing repair will reflect an overall change in that learner's language knowledge and use" (Hellermann, 2009a, p. 116).

In a non-L2 study, Wilkinson et al. (2007) in their study of interactions between an aphasia student and his wife over 15 weeks indicated changes in the use of self-initiated self-repair (word search) sequences. They found an increase of strategies from "replacement" and "expansion," to "insertion." Regardless of the interactants' linguistic ability, it seems that in general, as foundational research on repair in talk-in-interaction suggests, members of the talk show a preference towards any repair to be made by the "self" − the speaker who produced

the trouble source (Schegloff et al., 1977).

Nevertheless, researchers have yet to investigate word searches by L2 speakers, especially on the process of achieving intersubjectivity, in mundane ELF interactions and how the pattern may change over time through interaction.

2.8. Developmental Theories Used for Analyzing Interactional Competence

When investigating change and development of interactional competence of an individual, it is necessary first to clarify what I mean by "development." In this section of the chapter, I will review the typical perspective of "development" in the field of SLA, the theories and perspectives used to analyze interactional competence, and then lay out the framework of "development" which I will use for this study.

As displayed in Table 1, the two most common developmental theories used are Vygotsky's (1978) sociocultural theory and Lave and Wenger's (1991) situated learning theory. Other studies have not used or have not specified any developmental theories explicitly. In the following sections, these theoretical frameworks of development will be reviewed.

2.8.1. Vygotsky

Ishida (2011) and Ohta (2001) align their view to Vygotsky (1978), and differentiate learning from development. Vygotsky (1978) takes on a perspective that development is observable, and the learning process is necessary for the developmental process to occur. However, learning and development are not coincidental; developmental process lags behind the learning process. Furthermore, he suggests that development is never ending, that is, an initial mastery of a certain skills or knowledge "provides the basis for the subsequent development of a variety of highly complex internal processes" (Vygotsky, 1978, p. 90). Therefore, Ohta (2001), from her interviews with the participants, argues that the learners are

doing “learning” that cannot be seen only from the recordings and they are “developing” from cumulative efforts and challenges.

2.8.2. Situated learning theory

In contrast, situated learning theory (Lave & Wenger, 1991) has informed multiple studies to analyze changes in sequential patterns such as turn-taking patterns and participation framework. In situated learning theory, “learning” is viewed as the activities that the learners do to “participate in the communities of practitioners and that the mastery of knowledge and skills requires new comers to move toward full participation in the sociocultural practices of a community” (Lave & Wenger, 1991, p. 29) with the guidance of a member of the community. In other words, language learning is seen as participation (Sfard, 1998) and a mutual engagement in a joint enterprise in achieving a shared repertoire (Wenger, 1998) for a certain community. Thus, “development” entails becoming a fuller participant in the social practices of a community.

For instance, with an adult Vietnamese learner of English during writing workshops, Young and Miller (2004) found increase in turn-taking skills and sequential organization (e.g. transition between topics). Similarly, Cekaite (2007) found child L2 learners moving towards fuller participation through turn-taking behavior. More specifically, she found the learner being silent in class at first, then using inappropriate turn-takings, and at the end of the three semesters the learner was using appropriate turn-takings.

Hellermann (2008) in his study of ESL classroom dyadic tasks found a new comer to the US, “adjusting practices for participation in subsequent engagements in the particular action based on what was required and provided by the local context for the engagement” (p. 154), and developing new task-openings and closings in their interactions.

These studies using the situated learning theory have shown CA’s capacity in locating

change and development over time in talk-in-interaction in terms of participation of learners and sequential word usage including turn-taking patterns in relation to the interlocutor. Furthermore, the studies have shown that learning and participation are closely connected.

However, scholars have argued that participation and learning are not synonymous, and participation can actually constrain learning in some cases (Appel, 2010). For instance, especially in classroom settings, members can be denied access to learning opportunities, or have difficulty accomplishing tasks due to the different participation styles they are used to from previous classroom experiences.

Moreover, these previous studies using the situated learning theory have been criticized for using exogenous theories for CA studies which are data-driven in nature, and that the analyses could become theory "driven" rather than theory "informed" (Hauser, 2011). In other words, the changes discussed in the study may not always be based on conversational achievements but using the theory to claim that it is a developmental feature.

When studying interaction ELF contexts, such as the current study of this paper does, another point must be considered. In the situated learning theory, there is a preconception of a pre-existing community and a mentor or an expert. In a context in which the community and the members do not pre-exist or is more organic and in flux, the standard in which to determine "development" becomes obscure.

2.8.3. Non-theory driven, data-driven, usage based

Other CA-for-SLA studies that do not claim to use any explicit developmental theory assert that CA is enough to document the change and (social) cognition of the participants. The authors use terms such as non-learning-theory driven (Hauser, 2011), data-driven (Jenks, 2010), or usage based (Eskildsen, 2011, 2012) to describe their stances.

CA is not associated with any theories of development or learning (He, 2004), nor was

it originally created to document change of language use over time (Brouwer & Wagner, 2004). He (2004) maintains, "CA is not a learning theory and thus is not designed to document language acquisition, which entails use of language information/skills for problem-solving and change in behavior over a considerable period of time" (p. 579).

However, CA is not "strictly anti-cognitive" (Kasper, 1997, p. 310) either. CA understands cognition as socially shared, that is:

> participants in interaction constantly analyze each other's conduct for its locally emerging meanings, monitor their own, and display their understandings to each other through the details of their talk. In this way, cognition goes public as participants' joint enterprise and becomes available to researchers for analysis. (Kasper, 2009, p. 12)

For instance in Markee's (2008) study, the word "prerequisite" is introduced in an orientation session through a power point presentation and lecture. Two days later, the student shows her attempt in using and understanding of usage of the new word, and it becomes an object of a repair sequence between student and teacher. Although Markee does not have recorded data, it was then later reported by the teacher that the student was found autonomously using the word prerequisite.

Eskildsen (2011, 2012) claims to use "usage based theory" (Tomasello, 2000, 2009) of language acquisition to understand L2 development. The idea of "usage based theory" is that language emerges from communication and communicative needs, and traditional language acquisition distinctions of competence and performance are transcended. Tomasello (2000) lays out the perspective of usage-based models and describes:

1. the units of language with which people operate are not presupposed or prejudged

2. there is an explicit concern with processes of communication in usage events
3. the primary research questions are how human linguistic competence has evolved historically and how today it develops ontogenetically. (p. 78)

Despite the name "usage based theory," the concerns and perspectives towards language and language development are not different from data-driven CA-for-SLA studies carried out where researchers do not hold preconceptions about the data or the participants, observe how the participants adjust their language use in the communicative context, and investigate how that may change over time. In other words, it is useful to have a label, but it could be said that cognitive SLA has finally caught up with the sociocultural and discursive pragmatic approach to language learning and development.

2.8.4. Actual portrayal of L2 development in CA-for-SLA studies

Despite the learning theories employed (or not), when synthesizing the analyses and the ways in which "development" is conceptualized in the studies, they can be understood and categorized into the following three observations (and also in the left column of Table 1, page 49). L2 development is the expansion of:

(a) different expressions to describe a similar idea or function
(b) linguistic (and behavioral) variety to participate in a language event
(c) interactional contexts in which a same/similar word is used.

The first category (a) includes studies where the learner showed increase in methods of expression, such as negation. In Hauser (2013c), the learner, Nori, changed his methods and displayed more variety of methods in expressing negation. Studies under the category (b) correlate mostly with studies using the situated learning theory. These studies present L2 development L2 speakers using different language and participatory actions for a similar task

over time, such as phone call openings, as to make the activity more efficient or "appropriate" for the context. Finally, (c) comprise of studies where a certain word, such as a Japanese discourse marker *ne*, was found in different interactional contexts used for different functions. In this case, the expansion of the usage context is considered as "development."

As shown in Table 1, the studies' theoretical frameworks do not always coincide with how L2 development is portrayed. The features described in (a), (b), and (c) above are all indeed changes in interactional competence from the perspective of a discursive practice. Therefore, sociocultural theory and situated learning theory, as well as the usage based understanding of development, are all empirically based in explaining what "development" is of L2 interactional competence. At the same time, all studies describe the participants' adaptation to the language and the immediate interactional environment for improving mutual understanding and the progressivity of the conversation. I therefore have based this dissertation study on this conceptualization of development which understands it as an outcome of adaptation to the local interactional environment in achieving the interactional goal of mutual understanding.

In addition, I also understand development as non-linear, especially in a non-institutional ELF context where a "standard" language is not predetermined or shared. Nevertheless, all the CA-for-SLA interactional competence studies I have found thus far take on a linear model of development. However, as attrition research (e.g., de Bot & Clyne, 1994) have shown, language learning is not always a linear progression. What is more, despite what the theories stress about the crucial importance of the influence from and to the interlocutor and the surrounding interactional environment (Lave & Wenger, 1991; Vygotsky, 1978), there is notable lack of consideration of the possible changes in the interactional environment.

Eskildsen (2011, 2012) does however, attempt to employ a different and a more

dynamic perspective on development to describe the emergent developmental patterns of multi-word expressions, that is, L2 development as Complex Adaptive Systems (CAS) (N. C. Ellis & Larsen-Freeman, 2009b; Larsen-Freeman & Cameron, 2008a). The conceptualization of development as non-linear will allow researchers to observe change and development in a more inclusive and organic way. The details of CAS will be explained in the following section.

Table 1. Longitudinal CA-for-SLA studies on Interactional Competence (Ordered by conceptualization of development, then published year)

*Ohta (2001) Uses a CA-informed approach to analysis

Conceptualization of Development	Author (Year)	Speakers	Relationship	Context	Target Language	Length of study	In weeks	Focus	Claimed "Development theory"
Using different expressions to describe a similar idea or function	*Ohta (2001)	L2-L2	student-student	Classroom	Japanese	1 academic year (approx. 9 months)	36	Listener response (Use of *ne, soodesuka, no hooga, ni ittahouga*)	Situated Learning / Vygotsky
	Eskildsen (2012)	L2-L2	student-student	Classroom	English	26, 42 months (63 sessions)	104, 168	Negation (do-, can-, no- patterns)	Usage based
	Hauser (2013a)	L1-L2	teacher-student	Language exchange	English	8 months (19 sessions)	30	Direct reported speech (Expansion in ways of expression)	non-theory based
	Hauser (2013b)	L1-L2	teacher-student	Language exchange	English	8 months (19 sessions)	30	Negation (I don't know, you don't like, you don't know)	Usage based
Using new linguistic (and behavioral) variety to participate in a language event	Pallotti (2001)	child L1-L2	student-student	Nursery	Italian	8 months (3 sessions)	32	Lexical and syntactic development for participation (repetition only -->independent output)	not specified
	Brouwer & Wagner (2004)	L1-L2	(a)Danish-German employee (b) student-student	Telephone call (work)	Danish	(a) 3 occasions (b) 9 weeks	9	(a) Phone call openings (b) Repair initiation techniques	Situated Learning
	Young & Miller (2004)	L1-L2	tutor-student	Writing tutor	English	Approx. 1 month (4 sessions)	4	Turn-taking, participation to writing revisions (passive --> active participation)	Situated Learning
	Hellermann (2006)	L1-L2-L2	student-student	Classroom	English	30 weeks	30	Participation to literacy events (Being able to openings of story retelling, filling out reading log)	Situated Learning
	Huth (2006)	L2-L2	student-student	Telephone role-play task for class	German	9 weeks (week 3 & week 12 of semester)	9	Compliment responses and instructional effect	Situated Learning
	Huth & Taleghani-Nikazm (2006)	L2-L2	student-student	Telephone role-play task for class	German	5 weeks (after instruction)	5	Phone call openings and instructional effect (no topic initiation-->initiating topic in greeting turn)	not specified
	Cekaite (2007)	child L2-L2	teacher-student / student-student	Classroom	Swedish	3 semesters (approx. 9 months)	36	Participation in classroom multi-party talk (silent --> active student)	Situated Learning
	Hellermann (2007)	L2-L2/ L1-L2	teacher-student / student-student	Classroom	English	18-27 months	72-108	Task-openings (achieving mutual understanding before starting a task)	Situated Learning
	Hellermann & Cole (2008)	L2-L2/ L1-L2	teacher-student / student-student	Classroom	English	16 months (2 sessions)	64	Participation of pair work (Being able to spelling name/ closing pair work)	Situated Learning
	Hellermann (2009a)	L2-L2	student-student	Classroom	English	18 months	72	Self-initiated self-repairs (Increase in frequency, fewer repairs with personal pronouns)	Situated Learning
	Hellermann (2011)	L2-L2	student-student	Classroom	English	50 weeks (3 sessions)	50	Other-initiated repairs (how to repair, what to repair, use of "no")	Situated Learning
	Ishida (2011)	L1-L2	student-host family	Study abroad/ home	Japanese	9 months (7 sessions)	36	Response to tellings (backchanneling only-->commenting)	Vygotsky
	Nguyen (2011)	L1-L2	teacher-student	Office hour	English	5 weeks	5	Response to topic proffers (minimal --> expanded)	Situated Learning
	Waring (2013)	L1-L2	teacher-student	Classroom	English	18 months	72	Greeting response and instructional effect (Change in response to how are you/ What's up)	Situated Learning
	Dings (2014)	L1-L2	student-student (same pair)	Language exchange	Spanish	9 months (6 sessions)	36	Alignment activity (assessment, collaborative completion)	not specified
Using the same/similar word in different interactional contexts	Hellermann (2009b)	L1-L2/ L2-L2	teacher-student / student-student	Classroom	English	50 weeks	50	Participation to pair work (Expansion of the use of "no" – negation, humor, repair-initiator, show negative alignment)	Situated Learning
	Ishida (2009)	L1-L2	student-host family	Study abroad/ home	Japanese	9 months (8 sessions)	36	Discourse marker "ne" (Expansion in the context of use)	not specified
	Eskildsen (2011)	L2-L2	student-student	Classroom	English	25 months (30 sessions)	100	Use of "what do you say" (Expansion in the context of use)	Usage based

2.9. L2 Development as Complex Adaptive Systems

This section explains the concept of Complex Adaptive Systems (CAS) and how it can be utilized in framing L2 development. The section begins with introducing CAS, and its relation to language development.

2.9.1. Complexity theory

CAS is a perspective within the framework of Complexity Theory. Complexity Theory is also known as: Chaos Theory, Dynamic Systems Theory, Complex Systems Theory, to name a few. In this study, Complexity Theory (CT) will be used to refer to these concepts synonymously.

CT is the study of these non-linear phenomena and attempts to it from a holistic perspective. According to Sardar and Abrams (2004), "chaos is the occurrence of a periodic, apparently random events in an deterministic system" (p. 10). In other words, chaos refers to its nature of unpredictability rather than its randomness, and its patterns that change and partly repeat, but never quite repeat.

The "Theory" in CT does not refer to the theory in the sense of hypothesis testing, ideas, or set of rules. It is rather a perspective of the way we see the social world. In the social world, the relation of cause and effect are complex. Effects or outcomes derive from multiple causes and vary depending on the context. In spite of this, positivistic scientific and social science research has over-simplified the subjects of the research based on CT. For example, it has been assumed that groups are homogeneous, development is linear, and causes are dividable into separate variables. However, CT holistically embraces the multiple, dynamic, non-linear nature of the world.

CT emerged from the field of experimental mathematics. The origins of CT are complex, but one of the most well known pioneers of this discipline is Edward Lorenz

(Gribbin, 2004). In the 1960s, Lorenz was using a computer model for weather predictions. One day when he re-entered the same numbers he previously used, but with three decimal places instead of six, the results he got were drastically different from the previous results. He found that "[t]he weather systems was shown to be complex and more importantly, in the sense of 'extreme sensitivity of initial conditions' and its counterpart: non-linearity" (J. Smith & Jenks, 2006, p.4). This triggered of the idea of the so-called "butterfly-effect" − a flap of a wing in Brazil can cause a tornado in Texas (Lorenz, 1993).

2.9.2. Complex systems and complex adaptive systems

CAS describes an phenomena within CT which focuses on the system where the rules of the structure of the system change the whole system based on the context and the independent components of the system (Iba, 1998). CAS has its focus on the human and physical systems of the world and is a study of models of the mechanisms of the common principles or information of real world systems (Iba, 1998).

CAS is the main research area for the Santa Fe Institute where Murray Gell-Mann and John Holland contributed their work. Gell-Mann (1994b) explains:

> [A] complex adaptive system acquires information about its environment and its own interaction with that environment, identifying regularities in that information, condensing those regularities into a kind of "schema" or model, and acting in the real world on the basis of that schema. In each case, there are various competing schemata, and the results of that action in the real world feed back to influence the competition among those schemata. (p. 17)

Gell-Mann's definition of CAS is however different from that of Holland's (1995). Holland refers to the collection of interactive adaptive agents as CAS, while for Gell-Mann, the individual agents are CAS. In addition, Holland calls what Gell-Mann calls "schema" as

"internal model." In this paper, adopting Gell-Mann's definition, CAS will refer to the individual adaptive agents, the collection of interactive adaptive agents will be referred to as "collective CAS," and "schema" will be used instead of "internal model" to refer to what perceived regularities are compressed into (Gell-Mann, 1994a).

The bottom line goal of this Complexity Science − the study of CT, Complex System, and CAS − is to "understand, predict and control such emergent phenomena − in particular, potentially catastrophic crowd-like effects such as market crashes, traffic jams, epidemics, illnesses such as cancer, human conflicts, and environmental change" (N. F. Johnson, 2007, p. 5).

2.9.3. Language development as complex adaptive systems

Larsen-Freeman (1997) was one of the first to write about viewing SLA from a CAS perspective and suggested how this perspective could help overcome the dualistic paradigm in the field of L2 development. Other publications have followed in supporting the understanding of L2 development from the CT perspective (de Bot, 2008; de Bot, Lowie, & Verspoor, 2007; N. C. Ellis, 2008; N. C. Ellis & Larsen-Freeman, 2009a; Jessner, 2008; Larsen-Freeman & Cameron, 2008a, 2008b). Applying CAS framework in understanding grammar learning and development, Gell-Mann (1994b) states:

> The process of learning grammar also demonstrates the other features of a complex adaptive system in operation. A schema is subject to variation, and the different variants are tried out in the real world. In order to try them out, it is necessary to fill in details, such as the ones that were thrown away in creating the schema…Finally, what happens in the real world influences which variants of the schema survive. (p. 54)

In other words, language learning is "the constant adaptation of their linguistic resources in

the service of meaning-making in response to the affordances that emerge in the communicative situation, which is, in turn, affected by learners' adaptivity" (Larsen-Freeman, 2010, p. 67). Individuals' linguistic system is thus continuously changing by the ongoing interaction. From this view point, "learning" is not only the individual learner taking in linguistic knowledge, but also adapting and making changes to the communicative situation (Larsen-Freeman, 2010). Therefore, "development," as the result of "learning," can be understood as the changes to the individual linguistic system and the communicative situation that manifest themselves in the ongoing interaction.

This CAS view of learning is neither a remote nor a new perspective in the field of SLA. Several researchers are moving towards a conceptualization of learning that acknowledges both the cognitive aspect and the social aspects, and that the two are inseparable. Theories or approaches such as "ecological perspective" (Kramsch, 2003, 2008; van Lier, 1996, 2000, 2004), "sociocognitive theory" (Batstone, 2010a, 2010b; R. Ellis, 2010), and CT or CAS (Larsen-Freeman, 1997; Larsen-Freeman & Cameron, 2008a) suggest the need to take a more holistic stance towards SLA. van Lier (2000) explains the "ecological perspective" as the following:

> From an ecological perspective, the learner is immersed in an environment full of potential meanings. These meanings become available gradually as the learner acts and interacts within and with this environment. Learning is not a holus-bolus or piece-meal migration of meanings to the inside of the learner's head, but rather the development of increasingly effective ways of dealing with the world and its meanings. Therefore, to look for learning is to look at the active learner in her environment, not at the contents of her brain. (p. 246-247)

He argues that language learning *is* the verbal and nonverbal interaction in which the learner

engages in, not just a facilitative activity for learning (van Lier, 2000). The ecological perspective captures the organic, emergent, and adaptive feature of the agents in language learning and development.

Similarly, Batstone's (2010a) "sociocognitive perspective" argues that all forms of language use have both a social and cognitive dimension and the two are interdependent. In other words, performance (a social phenomenon) and competence (a cognitive phenomenon) of language use are continually related through co-constructed interaction (Batstone, 2010a). He further states that people bring their own unique prior experiences, knowledge, and understanding of language to the conversation. During the conversation, the participants then use these language experiences and knowledge to communicate and reach a mutual understanding. This adaptation and adjustment of language to the activity and new patterns of discourse is thus "learning," and also never ending (Batstone, 2010a). This conceptualization of learning is similar to Larsen-Freeman's (2010) perspective where she notes:

> As two language users interact, they adapt to each other. This co-adaptation process results in a transformation of the language resources of each participant, and ultimately, on a longer time-scale and at another level, across a speech community. (p. 58)

She continues and maintains that:

> We create new patterns from old by analogy when we want to make new meanings—we go beyond what is present in the input (Larsen-Freeman, 1997). We also use our language resources differently with different others. There is no single homogenised language competence. (Larsen-Freeman, 2010, p. 66)

Therefore language learning can be understood as the following:

> Learning is not the taking in of linguistic forms by learners, but the constant

> adaptation of their linguistic resources in the service of meaning-making in response to the affordances that emerge in the communicative situation, which is, in turn, affected by learners' adaptivity. Individuals' perceptual, conceptual, and linguistic systems are continually being updated by what they perceive and contribute to the ongoing flow of experience. (Larsen-Freeman, 2010, p. 67)

For this study, I will use the term CAS to refer to this adaptive perspective of learning due to the origins of the word. Both "ecological" and "sociocognitive" perspectives originate in the field of applied linguistics. However, the ecological perspective comes from the institutional setting of a language classroom, while the sociocognitive perspective was created while moving away from the socio and cognitive dichotomy in the field. In contrast, CAS derives from real word observations, with no connections to preconceptualized theories. Thus, CAS is considered to best describe the perspective this study takes and has the capacity to link or to connect the socially displayed cognitive state and how it changes over time.

I have synthesized the above conceptualization of L2 use and learning as a CAS, and have presented it as shown in Figure 2.1. The small individual circles represent the agents (speakers A and B), and the larger circle surrounding the agents represents the communicative environment. The agents mutually agree to enter a communicative environment and are free to participate or refrain from participating. Upon entering each communicative circle, their language use affects the other's language use and vice versa (as illustrated by the large black arrows). This connection is then reflected internally within the agents, and the speaker adapts, making subsequent adjustments to his or her language (as illustrated by the small white arrows). At the same time, the interaction between the two agents may affect the surrounding communicative environment where other agents may also be involved. This process of reaction and adaptation, as represented by the arrows, is continuous and ongoing, as long as

the agents interact with each other. When they leave their current interaction, they may create other communicative circles with other agents. Therefore, learning, as depicted here, is self-organizing and emerges through the participants' process of engagement.

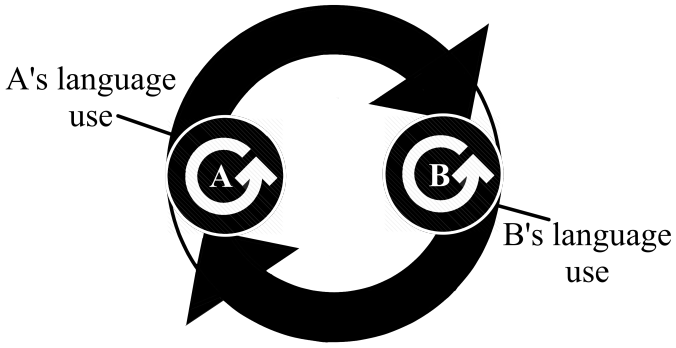


Figure 2.1. Agents reacting to each other and self through language use

2.9.4. Defining L2 learning and development

To summarize, language "learning" from a CAS, ecological, or sociocognitive perspective is the process of an collaborative effort where the two participants are independent agents, approximating from both sides by trialing and using the affordances in achieving a shared or a more approximated understanding of the counterpart's language use and meaning. At the same time, small change in one speaker may lead to a larger change in others, and the process of language learning is never complete (Larsen-Freeman, 2010).

Language "development," in contrast, comprises the visible changes to the system that manifest in language use or the socially displayed cognitive state as a result of a continuous mutual adaptation of language use between individuals. Therefore, "development" is the product of "learning" that occurs in and through the interactions. In other words, in this study, when observing "learning" and "development," "learning" can be observed in or during one sequence of single interaction, but "development" can only be observed through longer stretches of time. Below are examples (Example 2 and 3) from this study's data where the Japanese participant Ami is displaying "learning" of a word "experience," however,

"development" cannot be observed.

<Example 2: Ami Hang October Experience>

```
1  →  Ami:    so (.)ah:: what what things ah:::
2             how to say that .hhh (0.3)
3             what [thing?
                   [((gaze Hang))
4             mmm (0.5)ah::: do you like the ↓best
5             (.) I mean da (.) whats mm:::
6             (.) whats [happen? or=
                        [((gaze Hang))
7     Hang:   =mmm
8             (0.5) ((Ami put hands together))]
9     Ami:    .su:::=
10 →  Hang:   =experience?=
11 →  Ami:    =du (.)↑yeah experience ↑ah:::=
12    Hang:   =ex↑perience
13    Ami:    >yeah yeah yeah<
```

Example 2 is a conversation between Ami and her partner Hang in October. The two are talking about their summer vacation experiences. From line 1, Ami displays difficulty locating the word she is searching for through hesitations and a word search marker. When the conversation comes to a halt (line 8-9), Hang then suggests a candidate understanding "experience" (line 10). Ami then displays noticing through "yeah," repetition of "experience," and "ah" (line 11). This public display of noticing or change of state can be understood as "learning" of the word "experience" where Ami adapts and accepts Hang's language use.

However, the "learning" of the word does not necessarily lead to "development" of the speaker's language system. This can be observed in a conversation between Ami and her partner Soo in Example 3. This was recorded two months after Example 2. Ami is talking about her friend who will stay in the dormitory during the holidays to experience the Japanese new years.

<Example 3: Ami Soo December Experience>

```
1     Ami:      my frie:nds will be:: (.)
2               staying in ei pee ((AP)) house
3     Soo:      [°mmh mmh°
4     Ami:      [during da (.)winter vacation
5     Soo:      °mmhh°
6  →  Ami:      (0.4) to explain da: win-(0.5)
7               da festiva:l(0.5)◦new years ↓day◦=
8     Soo:      =but you mean dat explain:
```

```
9                (1.0)
10    Ami:       [explain
11    Soo:       [explain?=
12    Ami:       =ya (.) expla:in
13    Soo:       (.) explain to who?
14               (1.1)
15    Ami:       >no< ex (.) AH: my (.)my friend?
16               (.) will be ah: >how to say<(.)
17               will stay in ei pee house to: eh [explain?
                                                  [((gaze))
18               (0.5)
19    Ami:       explain means(.) °like° ↑try ↓to:
20               (0.4) try to: do some↑thing like [er:
21 →  Soo:                                       [experience?
22               (0.5)
23 →  Ami:       ◦expe◦ >↑ya< experience [↑$sorry:$
24    Soo:                               [↓◦ah:◦
25    Ami:       ◦experience ya◦
26    Soo:       ◦hmm:
```

In line 6, Ami uses the word "explain" instead of "experience," which leads to a non-understanding by Soo (line 8). Soo therefore seeks mutual understanding through request for clarification (line 11, 13). Ami however, continues to use the word "explain" (line 17-20) and does not notice that the word choice is the trouble source. When Soo suggests the candidate understanding "experience," Ami then displays noticing ("ya") and adapts to the suggested word through repetition of "experience" (lines 23, 25). Thus, Ami demonstrates "learning" again, but was not able to demonstrate "development."

Therefore, in terms of the word "experience," Ami displays learning in both Examples 2 and 3, but does not display development in her language system. As demonstrated by the above examples, it is necessary to distinguish learning from development when conducting longitudinal studies. As such, "learning" will refer to changes displayed in a single sequence, and "development" will refer to changes displayed across different moments of time.

2.10. Complex Adaptive Systems in L1 and L2 Developmental Studies

Although CAS applied to SLA is in its "infancy" (Larsen-Freeman, 2012, p. 83), recent publications have discussed how, language (Cooper, 1999; Larsen-Freeman & Cameron, 2008a), classroom interaction (Seedhouse, 2010b), and language learning (de Bot,

2008; van Geert, 2008, 2009) can be seen as CAS. However, many of these studies use modeling or summaries of modeling studies in supporting their claims. Only a handful of studies have conducted primary research and presented empirical data in explicitly supporting their analysis of L2 learning from a CAS approach (e.g., Caspi, 2010; Larsen-Freeman, 2006; Robinson & Mervis, 1998; Spoelman & Verspoor, 2010; van Geert, 2008; Verspoor, Lowie, & Van Dijk, 2008; Verspoor, Schmid, & Xu, 2012). Another handful of empirical studies have embraced the CAS approach in investigating L1 development (e.g., Plaza–Pust, 2008; van Dijk et al., 2013) or L1 use (e.g., Cameron & Deignan, 2006; Gibbs & Cameron, 2008) using empirical data.

In L2 writing development, Larsen-Freemen (2006) analyzed academic writings of five Chinese learners of English over the course of six months, focusing on development in fluency, grammatical complexity, accuracy, and vocabulary complexity. She demonstrated that although linear development was found when calculating the group mean, there were large individual differences and the non-linear developmental patterns when focusing on the individual learner. The majority of L2 longitudinal developmental studies with empirical data that employ a CAS perspective are on writing (e.g., Larsen-Freeman, 2006; Verspoor et al., 2008; Verspoor et al., 2012).

In terms of oral production, van Dijk et al. (2013) investigated L1 acquisition patterns of three children through a longitudinal microgenetic recording of care giver speech and child utterances from a CAS approach. They found mutual adaptation between the caregiver speech and child utterances in terms of the mean length. However, they found individual differences in the vocabulary change usage among the children. Using van Geert and Steenbeek's (2006) scaffolding model, they showed that the language use of the care giver is not an independent variable that is stable, but an "attractor" that changes as the child's output changes.

The results coincide with Roy, Frank, and Roy's (2009) study on children's productive vocabulary and its close correlation to the care giver's speech. In studies of scaffolding, researchers have shown that scaffolding is also dynamic, and student utterances and teacher utterances affect each other (Steenbeek, Jansen, & van Geert, 2012; van Geert & Steenbeek, 2006). Previous longitudinal developmental studies did not investigate the aspect of the participants' adaptation to various interlocutors (i.e., agents).

Atkinson et al. (2007), although only through one video recording session, was able to demonstrate through the methodology of CA and theoretical framework of CAS, that the micro linguistic feature used in interaction, such as gaze, laughter, worksheet, gestures, and jokes, are used to "adapt," or in CA terms "align," to each other in creating scaffolding and leading to learning of a grammar feature. Other CA studies informed by CAS framework suggest that "metaphor performance" is a social and cognitive process where the metaphors are "attractors" and are used and adapted to within talk and through different times (e.g., Cameron & Deignan, 2006; Gibbs & Cameron, 2008). For instance, Cameron and Deignan (2006) found a teacher commenting on a student's drawing of trees as "lollipop," then moments later as "lollipop trees." They then later discovered a student using the word "lollipop trees," thus exemplifying that the emergent new word had been adapted and became a part of the group's repertoire.

None of these studies has investigated the interactional unfolding of the interactions and how that leads to dynamic development. Therefore, investigating the development of L2 interactional competence from a longitudinal developmental perspective using the approach of CA and the framework of CAS will provide new insights into L2 development.

2.11. Principles of Complex Adaptive Systems

When analyzing CAS, "principles" are commonly used to describe the features which

a CAS should have, and then observing the behaviors which the phenomenon should then show (N. F. Johnson, 2007). Researchers have different explanations of what components comprise CAS; therefore, there is no agreement on a single list of principles of CAS. The principles of a CAS vary depending on the field and the researcher, and are selected based on the phenomena that is being studied.

Holland (1992, 1995) was one of the first to discuss the core principles of CAS. From a mathematical point of view, Holland (1992, 1995) introduces the following principles.

1. Aggregation: (property) Complexity emerges from the interaction of smaller components, which themselves may be the products of systems.
2. Tagging: (mechanism) Agents are differentiated and posses a manner in which to discriminate agents with particular properties.
3. Nonlinearity: (property) Agents interact in dynamical and non-linear ways.
4. Flows: (property) Agents organize into networks of interaction in which one interaction may trigger (flow) following interactions.
5. Diversity: (property) Agents evolve to fill diverse niches, which are defined by the specifics of agent interactions. The concept of a niche outlives the inhabiting agents, and the evolution of niches has a larger impact on the system than the evolution of agents (levels of abstraction and control).
6. Internal Models: (mechanism) Agents are changed through their interactions, and the changes bias future actions (agents adapt). The internal representations possess information as how to exploit the regularity of their interactions, without necessarily explicitly defining that regularity.

7. Building Blocks: (mechanism) Components are reused for multiple purposes.

In contrast, from the field of physics, Gell-Mann (1994a) list the following principles:

1. Coarse graining: trade-off between the coarseness for manageability of information and fineness for adequate detail in information
2. Identification: sorting out of regularities from randomness in information from the environment
3. Compression: perceived regularities are compressed into a schema
4. Variation: variation and improvement of schema (adaptation or evolution)
5. Application: use of schema to the systems environment, also considered decompression of schema
6. Selection: the consequences of selective pressures in the real world providing feedback and affecting competition for schemata

With the expansion of interest in CT and CAS, the discussion of what are the principles of CAS in language and language development has recently began in the field of applied linguistics.

Focusing on applied linguistics, Larsen-Freeman and Cameron (2008a) list the simplified following five properties:

1. Heterogeneity of elements or agents
2. Dynamics
3. Non-linearity
4. Openness
5. Adaptation

The Five Graces Group (2009), which Larsen-Freeman is a member of, state that the

following features are key when observing language evolution as a CAS.

1. The system consists of multiple agents (the speakers in the speech community) interacting with one another.
2. The system is adaptive; that is, speakers' behavior is based on their past interactions, and current and past interactions together feed forward into future behavior.
3. A speaker's behavior is the consequence of competing factors ranging from perceptual mechanics to social motivations.
4. The structures of language emerge from interrelated patterns of experience, social interaction, and cognitive processes.

Despite the great overlap of these principles, there are slight differences between these lists of principles. There is no agreement on what is "the principle" of CAS. It must be reminded that CAS only focuses on the mechanics side of the complexity phenomena, therefore, the principles of CAS are debatable depending on how CT is looked upon and utilized in one's research field or specialization. For my study of L2 development focusing on interactional competence, I will employ Seedhouse's (2010b) comprehensive principles of CAS as presented below:

1. Self-organization and adaption of many interacting agents
2. Non-linearity
3. Surface complexity arising out of deep simplicity
4. Sensitivity to initial conditions
5. Complex systems adapting feedback from the environment and from themselves
6. Complex adaptive systems arise from the interaction of their parts and

function as a whole which is more than the sum of its parts

7. Complex adaptive systems display both homogeneity and heterogeneity
8. Complex adaptive systems display self-similarity on various scales and levels
9. There are universal properties of non-linear systems (different systems behave in the same ways).

Seedhouse's (2010b) set of principles will be used because I consider it to be the most extensive and because it subsumes all the principles proposed by other researchers mentioned above (e.g., Gell-Mann, 1994a; Holland, 1992, 1995; Larsen-Freeman & Cameron, 2008a; The Five Graces Group, 2009). In addition, he was able to demonstrate the legitimacy of this list of principles by applying them to actual interaction. How these principles will be applied to the data will be demonstrated in the methods chapter (Section 3.8).

2.12. Summary

The chapter has laid out the definition of word search sequences for this study, especially from a CA perspective, and has reviewed the literature on patterns found in ELF interactions. This chapter has also reviewed developmental studies of interactional competence, and presented the conceptual framework of "development" for this study (i.e., CAS). To reiterate, this study will examine self-initiated word search sequences by L2 users and its development, seen as a result of adaptations to their interlocutor to improve achieving the interactional goal.

According to Larsen-Freeman and Cameron (2008a), "Students learning English through participation in subject classes have different language-using experiences from students learning English as a foreign language, and will develop different language-using patterns" (p. 220). This is because "Learners' attention to language adapts in response to

classroom demands" (Larsen-Freeman & Cameron, 2008a, p. 220). Inevitably, learners will adapt in response to the interaction happening in the EFL environment of the international university dormitory. Therefore, the findings will be unique to this case study.

From a detailed analysis of the interaction, in particular, of word search sequences over time from a CAS perspective utilizing CA, and answering the research questions, my research will contribute to understanding the process of the development of interactional competence.

Despite the accumulating number of studies on developmental interactional competence in recent years, the following weaknesses were highlighted in this chapter:

1. There is no developmental longitudinal study of interactional competence in non-institutional settings between two L2 speakers.
2. Development of word search sequences by L2 speakers in ELF contexts outside the classroom has not been documented.
3. Researchers have not incorporated the interlocutors and their influence and attribution to the "development" of the L2 speaker in the interaction.
4. All studies on interactional competence thus far see development as linear and the context as non-changing.

Therefore, it is invaluable for the field to document development of interactional competence in ELF interaction from a longitudinal approach, especially on word search sequences, including the strategies used, and how these strategies are responded to by the interlocutor. Moreover, I attempt to investigate the changes of the surrounding environment of the participants, in particular in respect to conversation partners, in understanding how "development" is constructed in the interaction.

The next chapter moves on to describe the methods in which the issues mentioned

above regarding word search sequence research will be addressed. The chapter will address the research questions formulated after noticing these holes in the field, and formulating the underlying theoretical research position for this study. The approach to the data and analysis will be outlined. The chapter will also discuss the issues and limitations of the study regarding the methodology.

Chapter 3. Methodology

3.1. Introduction

Chapter 3 outlines the research questions, methodology, and the underlying theoretical position this study takes. According to Silverman (2006), "methodology refers to the choices we make about cases to study, methods of data gathering, forms of data analysis etc. in planning and executing a research study"(p. 15). The choice of methodology depends on the research questions that are being asked and the philosophies of the researcher. Furthermore, methodology will determine "how one will go about studying any phenomenon" (Silverman, 2006, p. 15). This chapter therefore aims to clarify the researcher's rationale of selecting the certain method of data collection and analysis over others.

Moreover, Seedhouse (2010a) through his review of various learning and developmental perspectives in the field of SLA, notes that future studies should clarify the involved conceptualization of learning (development) through clarifying the following eight points:

1. The meaning of 'language' involved
2. The component(s) of language or language use learnt (vocabulary, syntax, patterns of participation and so on)
3. The definition or conceptualization of learning employed
4. The criteria employed for the valuation of learning
5. The research methodology and epistemology employed
6. The aims of the research or research questions
7. The circumstances of learning
8. Whether learning is being understood as a process, a product or both. (p. 242)

Of these eight points, numbers 4, 5, and 7 have yet to be explained regarding my research.

This chapter will therefore begin by introducing the research questions, method of analysis, and the rationale for the method. This is then followed by a brief outline of the main method of analysis, CA, and its considerations. I will then demonstrate how development will be analyzed using the CAS framework. Finally, the research context, participants, procedure, and its limitations will be covered.

3.2. Research Questions

Based on the gaps in research, as outlined in Chapter 2, and utilizing the approach of CA and the framework of L2 development as a CAS, I set the following research questions for this study.

1. How do L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations which the L2 speaker shows trouble locating a word?
2. How does the interlocutor respond to a word search recovery work by an L2 speaker?
3. How do interactional patterns of word search sequences change over time?
4. Is development of the use of word search sequences linear or does it display the characteristics of a CAS?

3.3. Method of Analysis

In order to answer the first two research questions, CA will be used as the method of analysis, and common patterns across L2 users and their interlocutors engaged in naturally occurring ELF interaction outside the classroom will be examined. CA was chosen as the methodology since it allows the analysis of sequential organizations of word search sequences from the participants' perspective and answer "how" the interlocutors accomplish the

communicative actions through the talk-in-interaction. For the third and fourth research question, a longitudinal, embedded, descriptive, multiple-case study design will be adopted, and CA and quantification will be used for analysis.

Since this research is interested in the development of L2 users, the participants' overall English language proficiency as measured by TOEFL will be analyzed at first. The study will then move on in analyzing the participants' use of word search sequences using CA. CA has the capacity to document interactions from an emic perspective and to elucidate social cognition through the interaction over time. However, a case-study design is necessary in order to focus on and document the development of the individual participants' use of word search sequences in a similar interactional situation over time.

In addition, quantification results of CA analyses of word search sequences will be used here to identify the pattern of use over time, as well as to identify new emerging uses of word search sequences. With only a few single-case analyses, the changes of the uses of word search sequences over time cannot be identified. Therefore, the participants' interactions with the same interlocutor will be collected across a considerable amount of time with close intervals, specifically, twice a month for one academic year, then analyzed and synthesized using CA and quantification to locate developmental patterns of word search sequences.

In order to answer research question four, in particular, I will employ the conceptual framework of CAS and apply it to the CA findings. CA has a fundamental tenet of observing interaction as if it proceeds in a linear fashion (Seedhouse, 2010b). That is, the participant (and CA analyst) takes the first action in interaction as the bases for the second action, which displays the interpretation of the first action. This second action then becomes the interpretational template for the next action. Thus, "interactant (and CA analysts) are employing a linear procedure to analyse and make sense of the process that may be non-

linear" (Seedhouse, 2010b, p. 21). However, what the speaker says is not necessarily what the listener hears, and the conversation may progress (or not) without achieving an accurate mutual understanding. Therefore, CAS is needed as an additional methodology to expose the possible non-linearity of the interactive and developmental process.

CA and CAS are compatible as methods of analysis. According to Larsen-Freeman and Cameron (2008a),

> Conversation analysis, by offering careful description of the micro-level of face-to-face talk as a single coupled system, is compatible with the complex dynamics systems approach to discourse being developed here and provides an important starting point for assembling a complexity toolkit for discourse. (p. 179)

Furthermore, according to Johnson (2007), one should follow the following procedures when analyzing if a system demonstrates CAS features,

> There is no rigorous definition of Complexity … We will characterize Complexity … by describing the features which a Complex System should have, and looking at the behaviors which it should then show. (p. 13)

Therefore, I will match the features of development observed while answering research questions one to three, with the features of CAS as described in Chapter 2 Section 2.11.

In the following sections, I will explain the rationale for taking this methodological approach and explain how CA data can be applied to the principles of CAS.

3.4. Rationale of Research Design

3.4.1. Case study versus cross-sectional

In order to examine "development" of interactional competence, the research must adopt a longitudinal study, a cross-sectional study, or a combination of the two. Case studies observe the same participant over an extended period while cross-sectional studies collect

data from two or more groups with different backgrounds, for instance, different proficiency levels or different lengths of stay in the target language community.

While these two types of research have strengths and weaknesses in researching pragmatic development (see Kasper & Rose, 2002), cross-sectional studies have been a popular method of conducting research in the area of pragmatics, especially speech acts (e.g., Hill, 1997; T. T. M. Nguyen, 2005; Takahashi & Beebe, 1987). On the other hand, as introduced in Section 2.7, only recently have scholars started conducting longitudinal case studies on development of interactional competence.

Longitudinal case studies are well suited to analyzing language development through interaction because of their capacity to document the changes in language use over time. A longitudinal case study also enables the researcher to identify the recurring features of context that influenced the changes. Harklau (2008) argues:

> [C]ase studies are especially suited to showing how context shapes advanced language learning over time. Because of their intensive and iterative nature, case studies can detect recurring features of learners' social and institutional environments that influence what language is acquired. (p. 23)

Although cross-sectional designs offer insights into different variables, they do not offer detailed insights into the developmental process and patterns, which the present research seeks to concentrate. Larsen-Freeman and Cameron (2008b) further suggest:

> [T]o understand language learning processes, we need to collect data about individuals (as well as about groups), and about individuals as members of groups as well as working alone. When researching groups, we need to see them as interconnecting systems of individuals. (p. 205)

In particular Yin (2014) argues that case study is an effective method when the

research questions ask why or how, and when the research focuses on observing actual satiations in their context. Yin (2014) continues to describe the variety of case studies: holistic versus embedded case studies, and single versus multiple case studies. A holistic case study relies on qualitative approach using narratives and descriptions in understanding one case as a whole, whereas embedded case studies involve more than one unit of analysis and are not limited to qualitative research approaches (Scholz & Tietje, 2002). In an institutional setting, the main unit may be the language school as a whole, and the smaller units or cases may be the classrooms, groups, or even pairs as learners of the overall institution.

Moreover, single case studies focus on only one case, while multiple case studies explore different cases. Yin (2014) suggests that a multiple case study enables researchers to compare and contrast the different cases as "replications," and therefore explore each setting and across settings. Multiple case studies can (a) predict similar results (a literal replication) or (b) predict contrasting results but for predictable reasons (a theoretical replication) (Yin, 2014).

In this study, I am exploring if and how word search sequences are done and change over time between the interlocutors in an ELF environment in Japan. Furthermore, through analyzing four individuals' word search sequences, this study attempts to understand the relationship between the ELF environment and their interactional competence. The four main participants interactional changes will then be compared to uncover any underlying tendencies that emerge through ELF interactions. Therefore, dyads will be one case study, embedded in a case study of the ELF dormitory environment. Thus, employing longitudinal, embedded, descriptive, multiple-case study design (Yin, 2014) is the most valid approach in answering research question three and four.

3.4.2. Length and frequency

In social science research, what is considered to be "longitudinal" is debatable. In the field of applied linguistics, researchers have claimed their research to be "longitudinal" when it encompasses time periods from as short as three months to as long as six years (Ortega & Iberri-Shea, 2005). Although there is no consensus on what is to be considered "longitudinal," and the choice of length tends to be based on practicality, Harklau (2008) refers to Young, Savola, and Phelps' (1991) findings of a conventional one-year benchmark for longitudinal studies in the field of social science. The longitudinal CA-for-SLA studies focusing on interactional competence analyzed in Chapter 2 (see Table 1, Section 2.7) also show an average length of approximately 50 weeks, a little less than a year. Therefore, this study follows this benchmark and collected conversational data across one year.

In longitudinal case studies, not only the length, but also the frequency and intensity of the data collection vary depending on the research goals and context. No benchmark has been noted on the frequency of the data collection, frequency of collection is usually determined by the quality of data as well as the sample size of the language phenomena being examined (Ortega & Iberri-Shea, 2005). As previously mentioned, Brouwer and Wagner (2004) expressed the need for a closer intervals of data collection and also the need to collect data between the same pairs of speakers. Bryman (2008), however, warns about collecting feasible amounts of data that can be analyzed within the given time. Therefore, this study will incorporate this recommendation for relatively close intervals (i.e., approximately once a month) of data collection with the same interactional partners.

3.4.3. Data analysis

When examining the features of interactional competence collected from authentic discourse, discourse analysis (DA) and CA have been found to be suitable for analyzing the results (Levinson, 1983). Both approaches are concerned with how "coherence and sequential

organization in discourse is produced and understood" (Levinson, 1983, p.286). DA has its strengths in integrating linguistics findings with discourse structure. However, due to its origins in text analysis, DA limits its analysis within predetermined categories, focusing only on single incidents. While CA avoids premature theory construction and its primary unit of analysis "is sequences and turns within sequences, rather than isolated sentences or utterances" (J. M. Atkinson & Heritage, 1984, p. 5).

On a similar note, previous research investigating pragmatic development has often adapted quantifiable methodologies using coding schemes (e.g., Bardovi-Harlig & Hartford, 1993; Blum-Kulka, House, & Kasper, 1989). However, working with predetermined categories has been found to limit the analyses in various ways. Using predetermined categories prevent the researcher from (a) understanding the actual pragmatic usage in natural conversation, (b) analyzing when and how the conversational environment, for instance conversation group, affects the use or development, and (c) finding new emerging usages.

Therefore, the most appropriate research method in studying pragmatic features such as word search sequences and their development in interaction would be CA, when the goal of the research is to explicate the competencies that speakers use and rely on when participating in social communication. Furthermore, researchers have argued, "joining a conversation analysis perspective on interaction with a long-term view of language development holds great promise" (Hall, 2004; Larsen-Freeman, 2004; Seedhouse, 2005). Therefore, CA is capable of examining pragmatic features within its sequential organization as well as its developmental patterns.

Moreover, when analyzing SLA from a complexity theory perspective, Larsen-Freeman and Cameron (2008b) suggest CA as one of the eight possible research methods. They further discuss, "If analyses were to be done with a sufficient density and rigor so that

retrospective microdevelopmental analyses could be conducted, it would offer another means of connecting synchronic dynamism to its over-time counterpart" (Larsen-Freeman & Cameron, 2008a, p.250). Thus, CA is found to be the most appropriate method when analyzing pragmatic development in intercultural interaction from a CAS longitudinal perspective for the following reasons. CA has the capacities:

1. To locate the context in which the pragmatic features have been used.
2. To locate other linguistic features that are being used to project the pragmatic features.
3. To analyze pragmatics from an ethnographic and microdevelopmental perspective.
4. To analyze longitudinal case studies.

3.5. Conversation Analysis

3.5.1. Background of conversation analysis

Since CA has been identified as the analytical tool in the present research, it seems prudent to briefly outline the history of this approach. Stemming from ethnomethodology (Garfinkel, 1967), CA is a method developed by Sacks, Schegloff, and Jefferson (1974) for studying a wide range of interactional aspects in the social world. By analyzing talk-in-interaction, CA aims to "reveal the tactic, organized reasoning procedures which inform the production of naturally occurring talk" (Hutchby & Wooffitt, 1998, p.1). Furthermore, CA views that "participants in conversation are seen as mutually orienting to, and collaborating in order to achieve, orderly and meaningful communication" (Hutchby & Wooffitt, 1998, p.1). Heritage (1988) raises the following three core assumptions of CA that analysts should keep in mind during the research. These are:

1. Interaction is structurally organized.

2. The significance of each turn at talk is doubly contextual in that (a) each turn is shaped by the context of prior talk, and (b) each turn establishes a context to which the next turn will be oriented.
3. No order of detail in interaction can be dismissed a priori as irrelevant to the parties' understandings of what is occurring. (Heritage, 1988, p. 130)

When conducting research, CA insists that data should be gathered from naturally occurring interactions since "order must be found in naturally occurring materials of interaction rather than materials fabricated through experimental procedures or role-plays" (Wetherell, Taylor, & Yates, 2001, p. 52). CA also insists that data analyses should be done case by case since "social interaction is orderly on an individual action-by-action, case by case level" (Wetherell et al., 2001, p. 52).

3.5.2. Approaches to conversation analysis

Approaches to CA can be mainly divided into "Pure CA" and "Applied CA." The former examines the "institution *of* interaction and an entity in its own right" (Heritage, 1997, p. 162) and the latter "studies the management of social institution *in* interaction" (Heritage, 1997, p. 162). Pure CA focus on the mechanics of the language being used, for example turn-taking and repair, while Applied CA is interested in the larger context of language constructs, such as how participants reach a mutual understanding, or the organization of "territory of knowledge" and epistemic stance. Applied CA is also at times used in the sense that it is a CA-inspired study.

CA is not able to elucidate the actual cognitive state of individuals, nor understand the intentions of why one used such a language at a certain point. What CA *can* do is to portray how the interlocutors are making sense of each other's utterances and the process of achieving intersubjectivity or socially-distributed cognition (Seedhouse & Walsh, 2010). Through

utterances, participants in talk display their own cognitive state and at the same time display their understanding of the interlocutor's utterances. Therefore, CA can be used to "identify ways in which participants themselves orient to, display, and make sense of one another's cognitive states (among other things)" (Drew, 1995, p. 79).

3.5.3. Emic perspective

CA's strength in observing socially-distributed cognition is related to the "emic perspective" which CA analysts use when analyzing interactional data. Pike (1967) distinguishes etic and emic perspectives as the following:

> [T]he etic viewpoint studies behaviour as from outside of a particular system, and as an essential initial approach to an alien system. The emic viewpoint results from studying behaviour as from inside the system. (p. 37)

In other words, the emic perspectives is a way of observing from an insider's perspective, or "stepping inside the shoes of participants to understand their talk and actions" (Wong & Waring, 2010, p. 6). In terms of CA, an emic perspective "is the participants' perspective within the interactional environment in which the talk occurs" (Seedhouse, 2005, p. 166). Therefore, analysts "trace how participants analyse and interpret each others' actions and develop a shared understanding of the progress of the interaction" (Seedhouse, 2005, p. 166). By analyzing the responses and turn-taking, CA analysts can expose how the initial or previous utterance was understood or was presented to be understood by the participants in the ongoing interaction.

3.5.4. Analyzing word search sequences longitudinally

The research objective of CA and its assumptions have formatted how CA is done. Sacks' (1989b) basic strategy of analysis was to compare instances of sequences which were similar in terms of (a) their institutional setting (the psychiatric emergency service), (b) their

structural location (a call's opening), and (c) the basic procedures (paired actions, later developed to the concept of adjacency pairs) and the different ways in which these would be used (ten Have, 1999, p. 14). In addition, analysis is strongly data driven, information about the speakers and the speaking context is avoided, and detailed description of the analysis is required (Heritage, 1984b, p. 14). Frequently, the analysis will show the regularities produced and oriented by the speaker in search of underlying principles.

The first aim of this study is to analyze the interactional structure of word search sequences used by Japanese L2 speakers of English in ELF interactions. Therefore, the analysis will begin by giving the data a "comprehensive data treatment" (ten Have, 1999). I therefore will analyze the data by first identifying the action that is being accomplished, and then document the resources that are being used to perform the action. Resources here refer to any verbal or non-verbal affordances available in the context, including turn-taking or repair work. Data will be then compared to other data in the collected corpus to find a scheme that covers all the data in the corpus. When conducting CA analysis, Seedhouse (2004) reminds researchers that at all stages of analysis, one must ask the question, "Why that, in that way, right now?"

The second, third, and fourth aims of this study are to explore how the interlocutor responds to a prosody-marked (i.e., with a rising intonation) candidate solution by an L2 speaker during a word search, how word search sequences, including prosody-marked candidate solutions, change over time, and if the changes display CAS features.

Sacks (1989b), in his lectures, does not suggest how longitudinal data could be analyzed using CA. However, as demonstrated in Chapter 2, growing numbers of researchers are showing interest in the application of CA on longitudinal language developmental studies (see Section 2.7). A longitudinal study enables the investigation of the ways in which the

context shapes and changes the use of certain language features over time.

Ishida (2009) exemplifies the use of CA on pragmatic development with the use of a discourse particle "*ne"* by a L2 Japanese learner. During a nine month study abroad program, she found her participant, Fred, using none of the target feature for first two months, however later expanding his use of *ne* in frequency, different type of turns, and for different functions. She further found Fred developing new discourse strategies of adding phrases following the *ne* in order to convey the accurate message. Although Ishida only analyzed selected instances of the uses of *ne* in detail, she was successful in displaying the expansion of the variety of the usages by her participant. However, Ishida's study and other longitudinal CA studies do not go into in-depth analysis of any changes in the interactional environment and how the interlocutors are adapting to each other.

3.5.5. Multimodality

When analyzing the conversational data, I will also incorporate non-verbal cues utilized by the participants during the talk. In particular, I will include facial expressions, gaze, and hand gestures into the analysis, adopting Goodwin's (C. Goodwin, 1986, 2000) approach to non-verbal actions in interactions.

Non-verbal behaviors were not included in the earlier CA studies (e.g., Sacks et al., 1974). However, a growing number of CA studies have incorporated multimodality into their studies on various interactional aspects (Nevile, 2015). More recently, several journals have published special issues on CA and multimodality (Deppermann, 2013; Jewitt & Cowan, 2014; Rasmussen, Hazel, & Mortensen, 2014). This highlights the importance of conceptualizing interaction as an action that is multimodal, and incorporating non-verbal cues into the analysis.

Moreover, the multimodal CA studies have demonstrated the importance of non-verbal

cues during talk in conveying meaning and achieving mutual understanding (C. Goodwin, 2000; M. H. Goodwin, 1983b; M. H. Goodwin & Goodwin, 1986; Gullberg, 2006). As Hazel, Mortensen, and Rasmussen (2014) maintain, "interaction as the primordial site for human sociality is always multimodal" (p. 3).

In terms of word searches, previous studies have shown the critical roles of gaze (M. H. Goodwin, 1983b). Gullberg's (2011) study also argues that initiations and solutions to lexical issues in L1-L2 interactions are often co-constructed through not only speech but also through gaze and gestures. Furthermore, speech and gestures are generally done together and also done in unison between the interlocutors.

Therefore, although not all gaze and gestures were captured within the frame of the video camera of this current study, the non-verbal cues will be incorporated as much as possible into the transcript and into the analysis. By doing so, the analysis will be more thorough and more details about L2 word search sequences can be expected to be understood.

3.5.6. Quantifying conversation analysis data

After detailed CA analyses of the data, quantification on results of CA analyses of word search sequences will be used. Quantification will be used in order to identify the pattern of use over time. This will also allow the identification of new emerging use of word search sequences where single-case analyses would not be sufficient to distinguish if a certain sequence is an emergent phenomenon or had been used from before.

Coding and quantifying CA results have been discussed repeatedly over the years (Heritage, 1999; Schegloff, 1993), and the discussion still continues to date (Nishizaka, 2015; Steensig & Heinemann, 2015; Stivers, 2015).

Stivers (2015) argues that quantifying CA results expands the audience and the applicability of the results. Similarly, Heritage (1999) predicts the increase of more quantified

CA studies in the future, and that it will enrich the practice. However, Heritage (1999) also reminds analysts that mastering the conversation-analytic research techniques and findings is a prerequisite for quantification. Others have a more conservative view on the approach, either denying the possibility of CA quantification (Steensig & Heinemann, 2015), or insisting on a careful process of quantification (Nishizaka, 2015; Schegloff, 1993).

According to Schegloff (1993), quantification of CA data requires careful consideration of the denominator, the numerator, and the domain when attempting to calculate the proportion of occurrences of a certain interactional phenomenon. First, the denominator refers to the "environments of relevant possible occurrence." The analyst must clarify the interactional context in which the focal object is relevant in order to calculate the denominator. Second, the numerator refers to the focal object. Schegloff suggests that single cases analysis is needed in order to accurately distinguish and calculate the focal object. For instance, depending on the context, "mh" in a talk may function as a backchanneling or display of disagreement. Finally, the domain refers to the situation of the talk, such as an interview or a business meeting. Therefore, Schegloff (1993) acknowledges that quantification of CA studies is possible, but careful single case analysis is necessary before quantifying.

In the case of this study, with a more precise and well studied target sequence that is being observed (e.g., word search recovery sequence), in comparison to a large blanket target object (e.g., repair), I align myself to Stivers' (2015) and Heritage's (1999) position of CA's capacity in quantification and the benefits it provides researchers. However, I also understand the need for careful analysis and categorization of the target phenomenon as Nishizaka (2015) indicates. Therefore, this study will attempt to quantify CA data through specifying the target feature (see Section 2.5) and avoid any overgeneralizations.

3.6. Considerations with Data Collection and Analysis Using Conversation Analysis

In the following section, I will describe the other considerations I will take when collecting and analyzing the interactional data.

3.6.1. Validity

Validity is crucial for this project and is considered with "the integrity of the conclusions that are generated from a piece of research" (Bryman, 2008, p. 32). Validity can be divided into internal and external validity.

Internal validity questions whether the measurement tool is really measuring what it was intended to do. In terms of CA, internal validity is supported if the data proves what the researcher says what it proves. By displaying the data as a transcript and detailed analysis of it, CA enables readers to follow the analysis procedures of the researcher and confirm the findings that are being made. Furthermore, analyses are done from an emic perspective and are data-driven. Therefore, conversation analysts will not make any claims beyond what is in the transcript. By following these core principles of CA, the internal validity of this research can be supported.

On the other hand, external validity is concerned with generalizability and applicability of the research findings. With the accumulating research on sequential organization of conversations, findings made using CA can be generalized depending on the focus of the research.

However, the focus of this particular research is in the individual learner's language development process through interaction, which is unique in many ways. Therefore, it is not in the scope of this research to generalize the findings of this research to other students at this institution, let alone second language learners in general.

3.6.2. Reliability

According to Bryman (2008), “Reliability is concerned with the question of whether the results of a study are repeatable” (p. 31). When using CA as the core methodology, the transcript used for the analysis will be presented in the document. Therefore, the reader can analyze the detailed transcript in the same way as the researcher to confirm or dispute any claim that has been made. Seedhouse (2004) clearly summarized this by stating:

> Many research methodologies do not require presentation of the primary data on which a study is based in publications about that study, and hence the reliability of major sections of the analyses of that data is not available for scrutiny. By contrast, it is standard practice for CA studies to include transcripts of the data they employ and increasingly to make audio and video files available electronically via the Web. Furthermore, the conversation analyst makes the process of analysis transparent for readers. This enables readers to analyze the data themselves, to test the analytical procedures which the author has followed and the validity of his or her analysis and claims. In this way, conversation analyses are rendered repeatable and replicable to readers. Also, it is standard practice for CA practitioners to take their data and analyses to data workshops and to send their work to a number of other practitioners for comment before sending them for publication. (p. 254-255)

Another issue of reliability is related to the amount of data that is being analyzed in order to make any claims of findings. Although there are no straightforward answers to the amount of data that is needed in order to make the research claims reliable, the claims can be justified within the limited scope of this research by following a detailed, emic, and data-driven analysis, as mentioned previously.

3.6.3. Reflexivity

Reflexivity is another issue that must be considered in relation to the methodology of this research. Reflexivity broadly refers to the "researchers' engagement of continuous examination and explanation of how they have influenced a research project" (Dowling, 2008, p. 747). The researcher being a teacher of the institution of the research context may influence the relationship between the researcher and the participant, and may make the participants feel they must perform well or differently during the recordings. However, since the participants themselves will do the video recordings, the researcher will not interfere with the actual data collection process. Furthermore, after having done recordings several times across a year, participants will become more accustomed to the procedure, and thereby capturing the participants' natural oral performance.

3.7. Summary of Conversation Analysis Approach for this Study

In essence, since this study is interested in self-initiated repair work used during word searches in interaction, it will start off with analyzing the interaction from a Pure CA perspective. However, when analyzing the developmental process of pragmatics in the individual and the group from a CAS perspective, the study will utilize an Applied CA approach from a longitudinal perspective. In addition, in order to grasp the overall tendency of the longitudinal change of the individual participants and the participants as a goal, I will quantify the CA results in a specific and limited manner, in order to avoid overgeneralizing the results. Finally, in order to analyze the rich resources utilized during interaction, I will incorporate the multimodal aspect of interaction, in particular, facial expressions, gaze, and hand gestures.

3.8. Analyzing Complex Adaptive Systems

In this section, I will explain the details of the eight principles introduced in Chapter 2 (Section 2.11), and illustrate how the principles of CAS can be applied and used in

understanding development of interactional competence using results from a CA analysis. This will be done by using the previously mentioned Ishida's (2009) data as an example.

The explanation of the principles may overlap and sound redundant, but the foci of the aspect of the property of CAS are different. In addition, I must note that since Ishida (2009) does not hold a CAS view on development, some information is missing to make it a complete analysis. Nevertheless, applying a CAS approach to interactional data enables researchers to observe the complex developmental process of interaction. In spite of the limited transcriptional and ethnographic data available through the published work, it is still possible to reanalyze the data from a CAS perspective.

3.8.1. Self-organization and adaption of many interacting agents

Complex systems consist of many components and connections among such components undergo continuous change through interacting, reacting, and adapting to each other (Larsen-Freeman & Cameron, 2008a). In terms of physics, Gell-Mann (1995) states, "The second law of thermodynamics, which requires average entropy (or disorder) to increase, does not in any way forbid local order from arising through various mechanism of self-organization, which can turn accidents into frozen ones producing extensive regularities" (p. 19). In other words, in CAS, there is no one central controller or organizer of systems, only independent agents. As a result, changes are based on locally available resources. Therefore, when seeing language as a CAS it can be said that the individual humans are the agents and, "Language is emergent from ongoing human social interactions" (The Five Graces Group, 2009, p. 17).

When observing interactions as CAS, in Ishida's (2009) study, the main participant and learner Fred was found using the Japanese discourse marker *ne* in various contexts to function in different ways as time passed. The interlocutor does not instruct Fred to use *ne* in

a certain way. This could be interpreted as Fred, as the agent, adapting to the social context of the interaction, and utilizing the linguistics affordances available, such *ne*, in achieving his aim of communication with out any controller or organizer telling him how to use *ne*.

3.8.2. Non-linearity

CAS are non-linear and do not progress in a straight line. As such, it is not always possible to predict what happens next. Holland (1995) states, "A function is linear if the value of the function, for any set of value assigned to its arguments, is simply a weighted sum of those values" (p. 15). Put differently, in linear systems the relations of cause and effect are clear, and small causes result in small effects, and large effects are results of the adding up of the small causes (Lee et al., 2009). Therefore, in linear equations, results can be predicted, generalized, and applied to other situations.

In contrast, in non-linear systems as CAS, small causes do not always add up to create a proportionate effect, nor are the changes always smooth and incremental. Rather, changes can be disproportionate and "occur with spurts, plateaus, and even regressions" (Thelen & Smith, 1994, p. 84). As a result, non-linear systems are almost always more complicated than linear systems (Holland, 1995).

Ishida (2009) does not conduct any statistical analyses on her data, however, non-linear change of frequency and placement of *ne* can be identified. Across the eight months, Fred increases the frequency of his use of the use of *ne*. During the first two months there is no use, but gradually increases his number of times of use. However, this increase did not happen in a smooth linear fashion, but rather with a sudden rise from one time in month five, to 10 times in month six, another sharp increase of 22 times in month seven, and then down to 13 times in month eight.

Furthermore, the sequential placement of *ne* and its functional variation gradually

expanded between months three and six with accurate use. In month six however, Fred, the participant, overgeneralized the use of *ne* and thus uses it in incorrect contexts. At the same time, *ne* is used in a phrase of *so desu ne* more frequently. Then in month eight, Fred used less of the phrase *so desu ne* with no misuses of *ne.* Therefore, it could be said that Fred demonstrated non-linear changes of his use of *ne*.

3.8.3. Surface complexity arising out of deep simplicity

Related to the feature of non-linearity, in CAS, surface complexity arises out of deep simplicity. Holland (1998) notes that in CAS, "the behavior of the whole is much more complex than the behavior of the parts" (p. 2). The principle refers to the phenomenon of simple changes bringing about large and complex effects (Gribbin, 2004). This is due to the system's nature of reaction where "systems interact with their environment, react to feedback from their environment and feed back on themselves" (Seedhouse, 2010b, p. 6).

In terms of Ishida's (2009) study, despite the Japanese *ne* being such a simple looking final particle, we can see the complex functions *ne* could have in interaction from Fred's use. Fred uses *ne*, for example, to seek the next turn agreement, display understanding, or show alignment. These functions will not have been observed if CA were not used.

A similar case can be said with Goodwin's (1995, 2000) studies with his father, Rob. After a stroke, Rob could only speak three words: Yes, No, and And. Although he was able to use only these three basic words, through the use of non-verbal cues and turn-taking, he is able to actively participate in conversations. Therefore, seemingly simple actions in talk could lead to complex and sophisticated interactional sequences.

3.8.4. Sensitivity to initial conditions

CAS are sensitive to initial conditions, thus initial differences may lead to extremely different results. Smith and Thelen (2003) state that small differences in one or more

components of the system "can lead to reorganization and to large differences in behaviour" (p. 347). This is what Lorenz (1993) discovered with his weather model where a decimal point difference in the initial setting lead to completely different results. This principle is connected to the non-linear feature of CAS where simple initial conditions can lead to unexpected complex structural patterns.

Initial conditions with language development could be understood as the context in which the conversation took place. In Ishida's (2009) study, the usage of *ne* greatly differed depending on the conversational partners and conversation topics.

3.8.5. Complex systems adapting feedback from the environment and from themselves

Johnson (2001) states that feedback is a principle of CAS and "all decentralized system rely extensively on feedback for both growth and self-regulation" (p. 133). This principle is similar to what was explained in Section 2.9.3 (Figure 2.1), regarding language use where agents make adjustments based on the feedback from the environment or the interlocutor, but also from themselves and how they use the language. Thus, CAS are "open systems" (J. H. Brown, 1994), that is, they are sensitive to the environment and are not fixed and always stable. Lee, Mikesell, Joaquin, Mates, and Schumann (2009) demonstrate that the feedback system can be seen in language as well, and how the more people use a certain word or form, the more it will be accepted and used by others.

In the Ishida (2009) study, Fred can be found adapting to the environment from the feedback that he receives and using new strategies as shown in the example below.

<Example 4 (Ishida, 2009, p. 365)>

```
10   YK: nihon de wa: apaato    ni: sundetemo:.(0.5)
         Japan in TP  apartment in  live-even if

11       tonari      dooshi    anmari nakayoku [(wa nare-)
         next door  each other much   befriend  TP become-can
         "in Japan, even if (we) live in an apartment, (we)
          can't make friends with the neighbors that much."

12   FR:                                        [aa aa
                                                 ah ah

13       soo [desu ne:.
         right CP  ne
         "Ah, ah. That's right."

14   YK:     [u::n.
              yeah
              "Yeah."

15       (0.8)

16   FR: aa.  apaato   ni sundeimasu ka?
         Uhm apartment in   live      Q
        "Uhm, do you live in an apartment?"
```

In Example 4, Fred uses *soo desu ne* (that's right) after Yuko's telling about interpersonal relationships in apartments in Japan. Yuko then, after *un* (yeah), stops her telling with a gap in line 15. The conversation on the topic seems to have ended here. However, then in line16, Fred prompts Yuko's telling again by asking a question related to the topic of apartment in Japan. Therefore, Ishida (2009) suggests from her detailed analysis, the *soo desu ne* in line 13 was not used to present Fred's previous knowledge of the topic, but was intended to align himself to Yuko's telling and to continue the conversation on the same topic.

From this interaction we can see (a) Yuko adapting to Fred's feedback and closing the topic (line 14), (b) Fred adapting to Yuko's closing of the telling with silence (line 15), but then (c) Fred self-adapting to his own previous utterance and producing a new utterance of an interrogative to restart the conversation (line 16).

3.8.6. CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts

According to the above-mentioned principles of non-linearity, feedback, and adaptation, CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts. Holland (1998) refers to this as "emergence – much coming

from little" (p. 1). This is due to the nature of non-linear systems where direct inspection of individual parts of the system cannot reveal or explain the system's behavior as a whole. Therefore, "subsequent activities can be determined only by extended examination and experiment" (Holland, 1998, p. 225). In other words, CAS "cannot, in general, be successfully analysed by isolating properties or variables that are studied separately and then combining those partial approaches" (Seedhouse, 2010b, p. 8). Simply put, in CAS, one plus one does not necessarily equal two.

Referring back to Ishida's (2009) study, the sentence-final particle *ne* standing by itself does not have a literal meaning nor does not have a functional or semantic equivalent in English that is unanimously agreed upon. However, through the use of *ne* in discourse, it holds a functional meaning that serves a purpose. In addition, from feedback through the responses of the interlocutor, we are able to understand how the functional meaning of *ne* was interpreted by the interlocutor and her response in co-constructing the social interaction.

3.8.7. CAS display both homogeneity and heterogeneity

Systems can seem very similar at one level, but different at another, this is the principle of CAS displaying both homogeneity and heterogeneity. This phenomenon is connected to the nature of CAS displaying fractal features which are homogeneous, but it is also connected to adaptations and emergence that result in heterogeneity. Miller and Page (2007) state, "in adaptive social systems we find that the agents' rules often respond to the phenomena that they generate, creating multiple layers of feedback that result in a diverse set of emergent behaviors, both for the agents and the system at large" (p. 107). For instance, snowflakes may be identical at the beginning with the same amount of moisture and temperature, but with the wind and other environmental feedback, the snowflakes that come down from the sky will never be identical (Gleick, 1987; Seedhouse, 2010b).

In Ishida (2009), if data were analyzed by only counting the instances of *ne*, they could be treated all the same as a sentence-final particle. However, through analysis of CA, it can be observed that there were no identical usages of *ne* in the conversations. No two instances of *ne* had the same placement within the conversation. Even when used with the same phrase of *soo desu ne* it held different functional purposes in the interaction. More importantly, if Fred had been compared to other learners, the process each learner's development of *ne* would not be identical.

3.8.8. CAS display self-similarity on various scales and levels

CAS is associated with fractal structures, where patterns are repeated, and the patterns are self-similar at different scales. Romanesco broccolis and coastlines are often raised as examples of fractals where the same shape is repeated to form a shape of a larger scale. Holland (1995) explains that an agent at one level serves as a building block for agents at a higher level, which then serves as a building block for agents at the next level. Furthermore, the agents of a higher level can be more complex than those of a lower level. Therefore, although there is a pattern that repeats its self at different level, there is a hierarchical structure. Moreover, Johnson (2007) notes that fractals are not always observable, and "just that they can be" (p. 50).

Smaller patterns being part of a larger pattern can be also found in Ishida's (2009) data.

<Example 5 (Ishida, 2009, p. 374)>

```
09  FR:  un::.  tanoshimi      ne:,=
         yeah   looking forward ne
         "Yeah. It's exciting, isn't it?"

10  MK:  =u[n.
          yeah
          "Yeah."

11  FR:    [n heh heh.
```

In Example 5, *ne* in line 9 and *un* in line 10 can be analyzed as an adjacency pair of pursuit of agreement (*ne*) and agreement (*un*). On a larger scale, these two can be interpreted

as a statement and an uptake. Furthermore, this exchange of a statement and uptake can be seen as a conversation between two people, thus, an example of a fractal relationship.

3.8.9. There are universal properties of non-linear systems: Different systems behave in the same ways

I have explained that CAS adapt and emerge into various different systems, and that these systems can show self-similarities. In addition to this, different systems can also hold universal features as with the snowflake example in the seventh principle (see Section 3.8.7). Johnson (2007) notes, "patterns which emerge from such Complex Systems can be so similar—or in techno-speak, the emergent phenomena have some universal properties" (p. 70). He then uses people as an example and explains, "even though there are many differences between all our different personality types, these differences may cancel out to some extent when we are in a large enough group—and hence the group as a whole behaves in such a way that these individual differences don't matter so much" (N. F. Johnson, 2007, p. 68). As a result, overall behaviors of different groups or systems can be quite similar. For instance, traffic jams appear quite similar among different countries, such as Japan, UK and the USA (N. F. Johnson, 2007).

Claims cannot be fully supported due to the limited data available from Ishida's (2009) article. However, the increase in frequency of use of *ne*, followed by the overusing and misuse, and then reduction in the misuse seems to be a universal pattern of language development. One example is Thomas'(1989) study with the developmental pattern of definite and indefinite articles. She found L1 and L2 speakers overgeneralizing the use of the definite article and then later using it appropriately in certain contexts.

3.9. Summary of Analyzing Conversation Analysis data as CAS

Although many of the aspects introduced in the list of principles are redundant and the

example analyses are premature from the limited data, interactional competence and its development can be seen as a CAS by applying the principles to data collected through natural conversations and analyzed using CA.

The current field of SLA tends to oversimplify the complexity of development by omitting the features fundamental to a complex, non-linear dynamical system of development (Larsen-Freeman & Cameron, 2008a). The same can be said about developmental research on interactional competence. However from a CAS perspective, development is analyzed holistically, including the individual, system, and the individual within the system. Larsen-Freeman and Cameron (2008b) illustrate this by giving the following example:

> [I]f we see the speech community as a complex system, then it will also have within it sociocultural groups that themselves function as complex systems; individuals within these subgroups can be seen as complex systems, as can their individual brain systems. There are complex systems at all levels, from the social level to the neurological levels. (p. 201)

Therefore to understand the language learning process, Larsen-Freeman and Cameron (2008b) suggest collecting data about individuals, the group, the individual as a member of a group, and the individual working alone.

Based on this, the analysis of the longitudinal data in this research will therefore take two steps. The first step, transcriptional data will be analyzed using the CA principles, observing how certain pragmatic features are used to do what, and its sequential organization and position in the interaction. The second step will be applying the CAS perspective to the interaction and comparing those instances in terms of time line and the principles of CAS.

Larsen-Freeman and Cameron (2008b, p. 206) adds the following eight points to consider carefully when applying the CAS perspective to applied linguistics:

1. Be ecologically valid, including context as part of the system(s) under investigation;
2. Honour the complexity by avoiding reductionism, and to avoid premature idealization by including any and all factors that might influence a system;
3. Think in terms of dynamic processes and changing relationships among variables, by considering self-organization, feedback, and emergence as central;
4. Take a complexity view of reciprocal causality, rather than invoking simple, proximate cause–effect links;
5. Overcome dualistic thinking, such as acquisition versus use or performance versus competence, and to think in terms of co-adaptation, soft assembly, and so forth;
6. Rethink units of analysis, identifying collective variables (those variables that characterize the interaction among multiple elements in a system, or among multiple systems, over time);
7. Avoid conflating levels and timescales, yet seek linkages across levels and timescales, and include thinking heterochronically;
8. To consider variability as central, and investigate both stability and variability in order to understand the developing systems

By considering these eight points and utilizing the framework of CAS to the interactions as analyzed from the CA perspective, it allows the analysis to encompass the multiple case studies of the dyads and the ELF dormitory environment, and the participants' development of and through word search sequences.

The next section will explain the details of the study.

3.10. The Study

The previous sections explained the methodology and its rational for this study. This section will now introduce the research context, the ethical considerations, the participants, the procedures, the transcription method and data presentation, and the limitations of the method employed. The section also presents the recording dates, times, and the interlocutors which the analysis is based on.

3.10.1. The Research Context

The study takes place at a university dormitory in Japan. Japan is a predominantly monolingual nation where Japanese is used as the common language. Moreover, despite the six years of compulsory English education, not all Japanese can use English for even everyday conversations.

This particular university is unique in its student demographics where enrollment is controlled to balance the number of international and domestic (i.e., Japanese) students, thus professes to be a "bilingual" environment where English is used as the common language. International students represented over 90 countries at the time of the data collection, giving the campus a multicultural atmosphere. The majority of the international students, however, are from the Asia Pacific region, such as Korea, China, India, Indonesia, Mongolia, Thailand, and Vietnam.

When taking the entrance examination of this university, students have the choice of taking the exam in English or in Japanese. A majority of the Japanese students take the exam in Japanese, whereas most international students take it in English. For this reason, some international students arrive in Japan with little or no Japanese ability, while all Japanese students have at least six years of formal English instruction prior to enrollment and can use English to some degree.

Therefore, according to casual talks with students and observations, at the beginning of the semester, the common language used on campus and in the dormitory is mainly English. However, as the international students improve their Japanese skills, and the domestic students improve their additional language skills, such as Chinese or Korean, the language choice becomes more fluid and mixed.

The dormitory where the study took place reflects the student demographic of the university. There are approximately 3000 residents in this dormitory, approximately half of the residents are Japanese and the other half are international students. A majority of the students are first year students, along with some second and third year students who live there as resident assistants. Most students living in the dormitory live in "shared rooms." These are rooms where Japanese students are paired up with international students to support each other with campus life and adjustment to the new culture.

Dormitory ELF interactions have been analyzed using CA by other researchers (e.g., Matsumoto, 2011; Park, 2007). However, these studies have been conducted in countries where English is spoken as the common language outside the campus (e.g., United States). This research environment is distinct in a way that the common language outside the campus is Japanese, but in the dormitory, English is the common contact language. No studies to my knowledge have studied the impact of this unique environment on Japanese students' English language development.

3.10.2. The Participants

Four female Japanese first year students volunteered to join the project as the core participants who will be the main focus of the study. The participants are Ami, Maya, Tomoko, and Yoko (all pseudonyms). They saw a flyer passed out by the researcher during a pre-enrollment session who arrived on campus prior to the beginning of classes at the middle

to end of March 2010. The requirements were that they lived in the university dormitory and were willing to record their conversations with international students. The four students were the only ones who signed up and there was no selection process of the participants.

At the end of March, the four students were asked to fill out a background questionnaire (Appendix C), they were explained that the research project is to explore the extent to which L2 English speakers develop their performance in English through intercultural communication, and that they can withdraw from the project any time they wished (Appendix A & B).

3.10.3. The Procedure

Data collection took a longitudinal approach for a detailed tracking of the participants. Adopting Ishida's (2009) data collection method, but at the same time widening the possibility to capture the linguistic features in focus, participants were asked to record themselves talking with an international student in the dormitory 30 minutes each, twice a month, over the course of one academic year.

The first recording took place early April 2010, during the first few weeks the four participants entered the university and moved into the dormitory. Subsequent recordings were made in the following months up to January 2011. However, since many of the students do not stay on campus during summer and spring holidays, there was a two-month gap during the summer vacation. All core participants conducted 16 recordings for the initial one-year data collection. Three of the four participants (Ami, Maya, and Yoko) then joined for a delayed recording with their fixed partner a year later after the last recording in January or February 2012.

The core Japanese participants each selected different student partners from their on-campus dormitories as their conversation partners. Following Brouwer and Wagner's (2004)

suggestion on conducting recordings with the same interlocutor, one of the two recordings every month was asked to be the same partner across the one year. The second recording could then be a different partner every month.

The partners of the core participants were 32 different students from 10 countries. The non-Japanese partners represent countries including: Botswana, Canada, China, Korea, Indonesia, Romania, Thailand, United States, Uzbekistan, and Vietnam. Some partners had experience living in more than one country for an extended period of time or had parents of different nationalities, and thus represent more than one culture or country. The majority of the recordings were pair conversations, some were in threes, and one recording was done in a group of four. Furthermore, the core participants were responsible to receive permission from their partner to record their conversation and to explain that the recording is for research purposes.

Recordings were made by the participants in the dormitory using a video camera. Video cameras are distracting and known to interfere with the participant's talk (Landsberger, 1958; Richards & Renandya, 2002). However, in order to capture any non-verbal communication that is being used during the interaction, which are invaluable to understand word search sequences, video cameras were used. Participants were asked to place the camera where all of the participants in the conversation can be seen to some degree, however, not too close as to distract the conversation. Instructions by the researcher were limited to the length of the recording and positioning of the camera. Participants were free to choose conversation topics on their own. The researcher was never present at the recording sessions.

The actual recording lengths varied from 22 minutes to 69 minutes. Some participants could not maintain the same intervals between the recordings or keep the same fixed partner throughout the whole project. For instance, in Maya's case, the fixed partner at the beginning

could not continue, and she had to change her fixed partner from the second half of the data collection. A few recordings were non-usable and thus not transcribed due to the poor recording condition of the voices, damage to the tape, and non-conversational data (e.g., singing session).

The majority of the recordings were done in the participants' or their partner's room. They would often sit on the bed or the floor, and would place the camera on the desk. Occasionally, the recordings were done in the shared kitchen and dining area. The recording sessions were planned by the participants, and were not hidden cameras capturing everyday life in the dormitory. However, at times, non-planned students would stop by to talk to the participants or join the on-going conversation and stay for the rest of the recording. Students who only joined the conversation briefly were not asked their names or backgrounds, and thus are not listed in the tables below.

In total there were approximately 37 hours worth of usable conversation data collected across 22 months at the longest duration. This was all transcribed using CA transcription conventions (Jefferson, 2004). The core participants' partners' names (pseudonym), country, length of recording, are shown below in Table 2, 3, 4, and 5.

Table 2. Ami's Recordings

Participant	Date	Partner(s)	Counrty	Length (minutes)
Ami	April 5, 2010	Wei, Umi	China, Japan	30
	April 19, 2010	Hang	Vietnam	39
	May 4, 2010	Ting, Nicole, Yui	China & Thailand, China, Japan	27
	May 1, 2010	Hang	Vietnam	61
	June 8, 2010	Hang	Vietnam	42
	June 27, 2010	Soo	Korea	38
	July 12, 2010	Hang	Vietnam	33
	July 26, 2010	Soo	Korea	34.5
	October 6, 2010	Hang	Vietnam	29
	October 20, 2010	Shuang	China	31
	November 4, 2010	Hang	Vietnam	27
	November 14, 2010	Wei	China	24
	December 1, 2010	Hang	Vietnam	26
	December 12, 2010	Soo	Korea	25.5
	January 7, 2011	Hang	Vietnam	26
	January 28, 2011	Ai	Vietnam	25
	January 12, 2012	Hang	Vietnam	32.5
	Total Length of Transcribed Recording			550.5

Table 3. Yoko's Recordings

Participant	Date	Partner(s)	Counrty	Length (minutes)
Yoko	April 1, 2010	Shitora	Uzbekistan	34
	April 19, 2010	Sharon	USA	36.5
	May 3, 2010	Shitora	Uzbekistan	37
	May 17, 2010	Cheng	China	34
	June 14, 2010	Nuru	Botswana	36
	June 30, 2010	Shitora	Uzbekistan	40
	July 14, 2010	Jacy	Thailand	34.5
	July 30, 2010	Shitora	Uzbekistan	40
	October 13, 2010	Jacy, Obb	Thailand	35.5
	October 27, 2010	Jacy, Obb, Pan	Thailand	37* unusable
	November 10, 2010	Shitora	Uzbekistan	36
	November 30, 2010	Jacy	Thailand	37
	December 13, 2010	Jacy	Thailand	38
	December 23, 2010	Shitora	Uzbekistan	69
	January 28, 2011	Shitora	Uzbekistan	42
	February 1, 2011	Jacy	Thailand	33
	January 20, 2012	Shitora	Uzbekistan	30
	Total Length of Transcribed Recording			612.5

Table 4. Maya's Recordings

Participant	Date	Partner(s)	Counrty	Length (minutes)
Maya	April 12, 2010	Kei	Korea (Canada)	27
	April 29, 2010	Kei	Korea (Canada)	42.5
	May 10, 2010	Niel	Korea (USA)	31
	May 24, 2010	Kei	Korea (Canada)	48
	June 23, 2010	Jenny, Tim, Joe, James	USA	37.5* unusable
	July 8, 2010	Kei	Korea (Canada)	25
	July 21, 2010	Cathy	Indonesia	32
	July 30, 2010	Kei	Korea (Canada)	25.5
	October 10, 2010	Yanti	Indonesia	59
	October 26, 2010	Yanti, Taman	Indonesia	33.5
	November 8, 2010	Dao, Angela	Vietnam, USA	34
	November 25, 2010	Yanti	Indonesia	56.5
	December 8, 2010	Bob, Rick, Thomas	China	48* unusable
	December 20, 2010	Yanti	Indonesia	61
	January 16, 2011	Shen	Korea	38
	February 7, 2011	Yanti	Indonesia	48.5
	January 25, 2012	Kei	Korea (Canada)	30
	Total Length of Transcribed Recording			591.5

Table 5. Tomoko's Recordings

Participant	Date	Partner(s)	Counrty	Length (minutes)
Tomoko	April 6, 2010	Pham	Thailand	22
	April 25, 2010	Anh	Vietnam	40
	May 16, 2010	Pham	Thailand	30
	May 24, 2010	Citra	Indonesia	30
	June 23, 2010	Anh	Vietnam	27
	July 7, 2010	Anh	Vietnam	30
	July 22, 2010	Monica	Romania	38.5
	October 1, 2010	Anh	Vietnam	29
	October 16, 2010	Maria	USA	30
	November 1, 2010	Anh	Vietnam	28
	November 12, 2010	Pham	Vietnam	28
	November 30, 2010	Alice	China	damaged* unsuable
	December 22, 2010	Jin	Korea	34.5
	January 20, 2010	Lee	China	23
	February 10, 2011	Pham	Thailand	36
	February 10, 2011	Keiko, Anh	Japan (USA), Vietnam	30
	Total Length of Transcribed Recording			456

In addition to their conversational data, TOEFL-ITP scores used for the university English program were collected from the participants throughout the data collection period. Furthermore, simple non-structured interviews were conducted at the beginning and end of the data collection period in order to have a better understanding of the participants' living environment, their emotions, and their self-perceptions.

3.10.4. Ethical Considerations

Adapting the research guidelines presented by the British Association of Applied Linguistics (BAAL, 2006), the following points were explained to the participants before the data collection.

1. The general purpose of the research (In order to avoid any influence on the data, I will not explain I will be looking at pragmatics. Rather I will explain I will be observing how well they can communicate with their partners.)
2. The data collection procedures and length of commitment.
3. Confidentiality and anonymity. (All names presented in this study will be pseudonyms.)
4. The right to withdraw anytime of the research.
5. The availability of the transcripts and research results.

Participants were asked to sign a consent form found in Appendix A and B. The consent form was translated into Japanese and a copy was given to the participants in order to avoid any misunderstandings.

3.10.5. Transcription and Data Presentation

All of the collected recordings were transcribed based on Jefferson's (2004) transcription format. Details can be found in Appendix D. As for the data presentation, all

names of participants and institutions are pseudonyms. In cases where non-English languages were used in a full sentence, three-line layout was used, the original sentence on the top, followed by a literal word-by-word translation, and last with the English translation in bold face letters. If it was a single word or phrase, a two-line layout was used with the direct translation below the word. Below is an example of a three-line layout:

<Example 6 (Tanaka, 1999, p. 193)>

```
1 →G: Datte     sōiu       chikara o     motte  irassharu kara
      after all that sort  power   ACC   have        because→therefore
      "After all, because ((she)) has that sort of power, therefore"

2     shigeki     ni nariuru     wake    deshō?=
      stimulation  P can become  reason   COP
      "((it)) provides a source of stimulation, doesn't ((it))?"

3  N: 'N: dakedo…
       yeah but
      "Yeah but…"
```

3.10.6. Limitations

Data collection. Mainly four limitations in the data collection process can be mentioned. First, the research context is at only one institution, limited to only female first year Japanese university students who live in the dormitory. Expanding the participants to male, non-Japanese non-native speakers, off-campus residents, different grades, or expanding the context to different universities may affect the results of this research. Selecting participants by their proficiency level at the beginning may also show different patterns of development from what is found in this research.

Another issue is related with the motivation of the participants. Although the participants were recruited and explained that this recording would be an opportunity to practice English, the motivation of joining the research may have been different. Some may have joined from curiosity, others may have joined to receive extra English support from the researcher who was also an English teacher at the institution. However, the details of their

motivation were not asked and cannot be confirmed.

Time constraints are also an issue for this research, which may limit the findings and understanding of how language is used in an institutional context. Although it may be valuable in looking at the whole institutional context as a system, due to time constraints and limited resources, particular group members will be selected to obtain understanding of their interaction in depth. In addition, expanding the research time span from one year to two years or more may capture different features of pragmatic development.

Finally, there is an issue regarding the recording instrument. Although video recording will capture non-verbal interaction and provide rich information, using a video camera may affect the way in which the speakers interact if (a) it is not placed in a non-distracting position or (b) recorded for a certain length of time until the participants get accustomed to the situation.

Data analysis. One limitation of using CA when looking at a phenomena from a CAS perspective is that "CA offers an in-depth view of conversational interaction, but it ignores any insights that a conscious introspection would permit" (Larsen-Freeman & Cameron, 2008b, p. 211). Due to the nature of CA, one cannot explain "why" a certain phrase or word was used instead of something else. Researchers are only able to examine how the utterance was interpreted by the interlocutor or how the utterance affected the context.

Furthermore, the current study will not be able to portray all elements of language development, and only a certain element focusing on word search sequences by L2 speakers of English. Despite these limitations, this study can make observational claims within the scope of the collected data and methodological perspective of analysis in contributing to the field of applied linguistics.

3.11. Summary

Chapter 3 outlined the research questions and the methodical considerations in approaching the research questions. More specifically, in order to explore the nature of word search sequences of Japanese users of English in ELF interactions outside the classroom and their changes overtime, this study will use an embedded multiple-case study design, and use CA as the main approach in analyzing the interactions. In addition, quantification of CA will be used as a supplemental approach to understand the overall phenomenon of word search sequences by Japanese users of English in ELF interactions and their changes. Moreover, the results will then be applied to the CAS framework in order to understand the developmental patterns across the cases and the ELF interactional environment as a whole.

The data collection was conducted in an ELF context of a university dormitory in Japan across 22 months with four Japanese L2 users of English as the main participants. Approximately 37 hours worth of video recorded data were transcribed and analyzed.

The following chapter will present the findings from the detailed analysis of the recordings using CA and the common features found among the four participants' word search sequences in the ELF interactions.

Chapter 4. Word Search Sequences in English as a Lingua Franca Interaction

4.1. Introduction

This chapter examines the sequential organization of the L2 speakers' recovering patterns of their self-initiated word search. Previous studies on word search sequences initiated by L2 speakers have focused on the repair work (or lack of it) by the L1 speaker in interaction (Hosoda, 2006; Kurhila, 2006) and, besides a few studies (e.g., Carroll, 2005; Hauser, 2013a), have not investigated the interactional work that the L2 speakers do in achieving mutual understanding when one lacks the linguistic resources in completing their utterances. Therefore, adapting Koshik and Seo's (2012) analysis of sequential organization, this chapter focuses on the following pattern that they introduce, with the L2 speaker initiating, providing a candidate solution, which is then confirm or corrected by the interlocutor.

A: Initiate search/ self initiated

A: Provides candidate solution

B: Confirm/ Correct

However, I will argue through the display of excerpts that in ELF interaction, there is a wider variety of sequential patterns than what Koshik and Seo (2012) found.

Furthermore, I will demonstrate through analysis of the word search sequences that even in ELF interactions there is a preference towards self-repair, and that frequently the Japanese participants would display their orientations to the interaction as a "learning opportunity" (Brouwer, 2003). What is more, the analysis displayed a negotiation of epistemic stance (Heritage, 2012b, 2013; Heritage & Raymond, 2005) towards the lexical item or the English language knowledge through the interaction. Thus, suggesting that participants in

ELF interactions are not always at a equal footing (Goffman, 1981a) nor are the conversations always cooperative and supportive (Seidlhofer, 2001).

This chapter begins by introducing the word search initiation patterns, then the variations of frequently used candidate solutions utilized in ELF talk. This chapter will then narrow down the focus to the responses by the partner when the candidate solution is presented with a rising intonation.

4.2. Word Search Initiations

Out of the 37 hours of video recording among the four participants, 282 instances were found where the Japanese participant initiated the word search; Ami 86, Maya 92, Tomoko 38, and Yoko 66. These word searches were initiated through typical patterns such as silence, eye gaze away from the interlocutor, cut-offs, repetition and restart of sentences, elongated vowel sounds as documented in previous research (e.g., Carroll, 2005; M. H. Goodwin, 1983b; Schegloff, 1984; Schegloff et al., 1977). However, the word search sequence collection of this study exhibited additional variety of ways in which word searches were initiated; the use of "how do you say," "*nanka*" and the variation of it, and what-ending turns. The following section will describe these features in detail.

4.2.1. How do you say

The most common verbal initiation of word search was the use of the phrase "How to say" or "How do you say," more commonly with no rising intonation. This lack of prosody suggests that the speaker is conducting a solitary search for a word, while with prosody often is connected with a request or intervention to the interlocutor in resolving the word search. Excerpt 1 demonstrates a sequence in which Ami uses "How do you say" with prosody inviting other-repair, while Excerpt 2 demonstrates a sequence without prosody, suggesting self-repair.

<Excerpt 1: Ami Hang June Damage>

```
1   Ami:    (0.4) so:: (.) if I (.) dyed da hair da (.)h
2           hair er da hair is very: .ss (0.3)°i°
3           (0.8)
4   Hang:   ↑AH:=
5   Ami:    =how do you say dat? i(.)[itamu::
6   Hang:                             [you mea:n
7           ↑AH(.) [you mean
8   Ami:           [°ita:
9   Hang:   you mean (.) its (.) it will be: hmm: (0.3)
10          damaged?
11  Ami:    Dame:ji (.) [ya
12  Hang:               [ah::
```

Excerpt 1 is between Ami (the Japanese participant) and Hang (from Vietnam) talking about Ami's new permed hairstyle. Ami initiates a word search through her display of hesitancy and pauses (line 2, 3). Hang then shows noticing or understanding through a sharp rising "ah" (line 4). However, it is unclear what the noticing is referring to. Ami then explicitly displays her trouble of finding the appropriate word, and says "how do you say that" with a rising intonation (line 5). In addition, while saying "how do you say that," Ami maintains eye contact with Hang, as shown in Figure 5.1.



Figure 5.1. "How do you say that"

This is then followed by a Japanese word "*itamu,*" meaning damaged (line 5). Overlapping with the use of code-switching Hang states "you mean," which is then repeated two more times (line 7, 9), before she provides the word "damaged" with a rising intonation. Ami then confirms this candidate solution through repetition and "ya" (line 11). In line 4, Hang may have understood Ami's intentions ("ah") and moved on with the conversation. However, by Ami explicitly requesting for help through a prosody-marked "how do you say," the sequence moves on to a word search side sequence of the word "damaged." This was the

typical pattern with prosody-marked word search phrases, which were often preceded or followed by a gesture, code-switching, or description.

Excerpt 2 is from the same recording as the previous Excerpt 1. Here, Ami's solitary search for a word can be observed.

<Excerpt 2: Ami Hang June Sour>

```
1        Ami:    =↑AND (.) SO:: (.) .sss (.)↑hmm
2                (0.9)
3   →    Ami:    .ss °how do you say° ↓ah::
4        Hang:   haha
5        Ami:    hmm:: (.) .ss sa (.) sappa?
```

Similar to Excerpt 1, Ami displays hesitation and pauses and displays an initiation of a word search. She then uses "how do you say" in a soft voice (line 3). In addition, Ami while saying "how do you say" in line 3, she looks up at the ceiling as shown in Figure 5.2.



Figure 5.2. "How do you say"

Ami continues her solitary search and then presents a candidate sound of the word with a rising intonation. This leads to several more turns of guessing work and hint giving by Ami until they reach a mutual agreement of the sought out word (the longer segment that includes this sequence can be found in Excerpt 11, Section 4.3.1).

Therefore, although "how do you say," with or without a rising intonation is related to initiating a word search, the sequential roles it has are contrastive. One is a request for explicit help while the other suggests thinking about a word and the possibility of self-completion. This is similar to what Buckwalter (2001) distinguishes "how do you say" between a request

and a “delaying tactic” (p. 387) or “floor-holding device” (p. 386). Furthermore, the gaze used by Ami is quite different between Figure 5.1 (engaging eye-contact) and Figure 5.2 (disengaging eye-contact), despite it being the same recording and despite a similar phrase being used. On one hand, by disengaging her gaze from Hang, Ami displays thinking and the possibility of knowing the sought out word as well as her possible K+ position of the word. At the same time, Ami is restricting Hang from joining the word search. On the other hand, through mutual gaze, Ami invites Hang to join the word search and request for support or confirmation, thus suggesting Ami’s K- position. Therefore, through the use of her verbal and non-verbal (i.e., eye contact) moves in the sequence, Ami is able to manage the degree of co-construction of word searches. Therefore, discourse studies which only quantify word search phrases used by the speakers and claim L2 speakers’ insufficiency (e.g., Hilton, 2008), will need to investigate further into how the phrase is presented in the interaction including embodiment.

4.2.2. Nanka, nani, nandakke, nante-iuno, nanda

Similar to “how do you say,” there were frequent cases of ongoing word searches presented through the use of Japanese of “*nani*”(what), “*nanka*” (like), as well as, “*nandakke,*” “*nanteiuno,*” or “*nanda,*” which could be considered as the Japanese equivalent to “What is it” or “How do you say.” Again, these would be often done through no mutual gaze, and suggests and ongoing solitary search of a word.

Below is an example of the use of “*nandakke*” by Yoko, when talking with her partner Shitora. The two are talking about summer vacation plans and Yoko’s volunteer club activity in Thailand.

<Excerpt 3: Yoko Shitora June Teach>

```
1     Yoko:      ↓mm: (0.5) I (0.8) go to:(1.7) Thailand
2                ↑this year >I go to Thailand< a::nd (1.0)
3                (2.3)
```

```
4  →  Yoko:      nandakke.
                 "what is it"
5                (3.3)
6     Yoko:      Tich
7                (1.8)
8     Yoko:      not teach but=
9     Shitora:   =like teacher assistant,
10    Yoko:      (0.3) >↑yes yes yes<
11    Shitora:   mm::
```



Figure 5.3. Line 4 "*nandakke*"



Figure 5.4. Line 9 "like teacher assistant"

In line 1-2, Yoko states that she will be going to Thailand. She then pauses for an extended amount of time (line 2-3) before saying "*nandakke"* (what is it) (line 4), indicating that she is searching for a word. While saying *nandakke*, Yoko (on the right in Figure 5.3) looks away from Shitora (on the left in Figure 5.3). By doing this Yoko makes it clear that she is not referring to Shitora, but to herself. Yoko then provides some hints of the word she is searching for, that it is "not teach" (line 8) while continuing the disengagement of the eyes. Shitora then provides a candidate understanding as a "teaching assistant" preceded by "like" (line 9) while Yoko is turning her head and re-engaging her eyes with Shitora (Figure 5.4). Due to the close timing of Yoko's body movement and Shitora's utterance, it is unclear if Yoko re-engaged eye contact to seek help or because Shitora started providing help. Either way, by turning her head back to Shitora and re-engaging eye contact, Yoko physically displays her availability to the other-repair or candidate understanding. This candidate understanding is then confirmed by Yoko (line 10).

Therefore, the non-prosody-marked "*nandakke*" can be seen as equivalent to the non-prosody-marked "how do you say" indicating a solitary search of a word. Thus, receiving no response from the interlocutor. This is consistent with Hayashi's (2003) finding in Japanese

L1-L1 interactional word searches where the use of "*nanka*," "*nani,*" and disengagement of eye contact indicates a solitary word search.

Hence, from the word search initiation methods and the responses that were found in the ELF interactions, it can be said that the interlocutors display orientation to the preference towards self-repair compared with other-repair, and avoid shifting towards a word search side sequence. Hosoda (2006) and Kurhila (2004) found that when L2 speakers explicitly display trouble in talk through the use of these word search initiation markers, it shifts the participation framework to solving the word search and the L1 speaker provides repair. However, the extracts here have demonstrated that it is not always the case. These self-addressed word searches can be considered as self-talk or "private speech" (Vygotsky, 1987), displaying an attempt to self-repair. In addition, by explicitly presenting the solitary word search through verbal (the speaker's L1) and non-verbal behavior, the interlocutor (hearer) orients to this by providing space in the interaction until the solitary searches are completed or is requested for other-repair or help through the speaker's use of gaze or candidate solution. As a result, the participants in talk can avoid the self- or other categorization of English language expert or novice. Rather, they focus on the progression of the content of the talk.

4.2.3. What-ending

In connection to using prosody-marked phrases or words in initiating a word search preceding the sought out word (How do you say X?) or independently (How do you say?), there were also cases where the participant would end her turn with "what" to initiate a word search. The use of what-endings to signal an initiation or an ongoing word searches have not been documented in previous CA studies to my knowledge. Excerpt 4 is an example of a search for a referential (i.e., name of an academic course name) which uses this "what-ending" in a recording between Maya, Yanti, and Taman in October.

<Excerpt 4: Maya Yanti Taman October What-ending>

```
1      Maya:     uh::: I (.) I had (0.3) da:: (.)
2                ↑last semester=
3      Yanti:    =°mh huh°=
4      Maya:     =I had (0.5)uh::: asia pacifics::
5                (0.8)
6      Maya      uhu?
7                (1.1)
8      Maya      mhh nne ne nation?(.) of?
9   →            (.) [what?
                     [((leans in to look at something))
10               (0.5)
11     Taman:    ahah
12               (0.6)
13     Maya:     UH:::: (0.3) ah I forgot
14     Yanti:    [hehhehehehhe
15     Taman:    [(            )
16     Maya:     subject name hh=
17     Taman:    =yeah
18     Maya:     (0.3) uh:::: (.)mh?
19               (1.3)
20     Maya:     ((snap))
21               (0.6)
22     Maya:     ↑religion and (0.5)[nations?
23     Yanti:                        [(      )
24               (0.3)
25     Yanti     rel- people en religion?
26     Taman:    ↑AH=
27     Maya:     =people en religion
28     Yanti:    °in da° [°asia pacific? °
29     Maya:              [>yeaha:h<
30     Taman:    [AHhhhh
31     Yanti:    [ah:::::
```



Figure 5.5. Line 9 “what”

In line 4, Maya starts naming the class she took last semester, where she then displays trouble through hesitation markers, pauses, “uhu?” (line 5-7). In line 8-9, Maya restarts by stating “nation” and “of,” but with a rising intonation showing a lack of confidence (line 8), which is then followed with a “what,” again with a rising intonation (line 9). At the same time, she displays searching for the word by staring at something in her room, possibly her course schedule, which Yanti joins to look at (Figure 5.5). Taman responds with a giggle (line

11), however does not provide any support for the word search. This laughter by Taman is open to interpretation, but one way to view it is that Taman is "laughing at" (Glenn, 1995) Maya's turn as a butt of a joke (Stokoe, 2008). Stokoe (2008) argues that in sitcoms, laughter is placed after interactional breaches are made, such as unmitigated dispreferred responses. In this case, Maya replaces the next word following "nation of" with "what," and breached the expectation of the listener, as a result, provoking laughter from Taman. It is not until Maya restarts her presentation of the course name and inclusion of the word "religion" in line 22 and onwards that Yanti presents her understanding of the course name (line 25).

The use of "what-ending" was found used by the partners, who are also L2 speakers, as well. Excerpts 5 and 6 are between Maya and Yanti in October and November. In Excerpt 5, the two are talking about the long Indonesian names and how Yanti has difficulty fitting her name into the forms in Japan.

<Excerpt 5: Maya Yanti October What-ending>

```
1        Yanti:   °it's so long° (.) when (0.3)
2                 uh we: fill (.) out (.)da::
3                 (0.5)
4  →     Yanti:   >°what°<?
5                 (0.5)
6        Maya:    °m,°
7        Yanti:   (0.3)uh last floor meeti:n'?
8        Maya:    mmh:
9  →     Yanti:   da(.)da paper?
10       Maya:    ↑mmh:
```

In Excerpt 5, Yanti is talking about her long name and the trouble of filling in forms. Yanti elongates the vowel sound of "the" (line 2) and pauses (line 3) then says "what" with a rising intonation, suggesting that she cannot present the exact word she is searching for at the moment. It's unclear if Yanti is looking at Maya when she says "what," but Maya responds with "m" after a short pause. By doing this, Maya shows that she is listening, but is not attempting to provide a candidate word. Yanti then continues to resolve this by explaining through a possible shared experience of "(the dormitory) floor meeting" and then retroactively

specifies what "what" was referring to, that is "the paper" used at the meeting (line 7 and 9).

A similar case was found between the two in November, when the two were discussing the Korean military conscription system.

<Excerpt 6: Maya Yanti November What-ending>

```
1      Yanti:    >ah< (.) uh how about (.)Kenbo
2                (.) Kenmo
3      Maya:     mhh
4   →  Yanti:    is he::: already (.) what?
5                (1.5)((Yanti snaps))
6   →  Yanti:    military?
7      Maya:     military?=
8      Yanti:    =military army (0.5) uh two years
9      Maya:     ↑UHHH mhhh
10     Yanti:    he's already
11               (0.8)
12     Maya:     NO:=
13     Yanti:    =>not yet?<
14     Maya:     yet mhh [not yet
15     Yanti:             [mmh
```



Figure 5.6. Lines 4-5 "what"

In line 4, Yanti elongates the vowel sound in "he," then says, "already what" with a rising intonation. While saying "what," Yanti disengages eye contact from Maya, and tilts her head down, and then snaps her fingers (line 4-5) as shown in Figure 5.6. Maya does not respond to this, and provides space for Yanti to complete her solitary search for the word. Then in line 6, Yanti provides the candidate word "military" with a rising intonation, similar to Excerpt 5, providing a word that would have possibly taken the place of "what" in line 4. Maya however, repeats this with a rising intonation, displaying non-understanding or need for repair (line 7). Yanti orients to this by repeating "military" again, but this time providing a synonym "army" and additional information of "two years" required service of Koreans males

(line 8). Maya then presents a change of state with a high pitched "uh" and "mh" (line 9) and shows mutual understanding through answering the question (line 12, 14) even before Yanti restates the question in a full sentence (line 10).

Drew (1997) indicates cases where a "partial repeat + what" is used as a repair initiator by the hearer to locate the word which they had difficulty hearing or understanding. Thus, the "what" substitutes the lexical item that is under search. However, what Drew (1997) found is done by the hearer, and not by the speaker. Rather, this what-ending word search initiation is more similar to the use "*are*" (that) in Japanese (Hayashi, 2003) which the speaker uses as a placeholder for the word in search. Example 7 is from Hayashi (2003) where he demonstrates this use of "*are.*"

<Example 7 (Hayashi, 2003, p. 123)>

1	Yoohei:	demo SONO mae ni WA: :
		but that before at TP
		"But before THAT,"
2	a➔	(0.6) ano: : : (0.5) **are** ga atta n desu yo
		uhm that.one SP existed N CP FP
		"(0.6) uh:::m (0.5) there was **that one**" (Lit., "**That one** existed")
3		ano: : (1.0) ee : : : : : : : : to ne,
		uhm well FP
		"uh::m (1.0) we::::::::ll, …"
4		warito ano (1.0) nan te yuu n desu ka (1.0)
		rather uhm what QT say N CP Q
		"… sort of, uhm, (1.0) what do ((you)) call ((it)), (1.0)"
5	b➔	**ongaku BANgumi** toka.
		music program etc.
		"… **music programs**, etc."

In lines1-2, Yoohei uses elongated vowel sound, pauses, and "*ano*" (uhm) to display trouble in locating the next item. He then uses "*are*" (that one) as a placeholder for the word he is in search for, then marks it with the subject marker "*ga*," and continues with the rest of the utterance. Yoohei continues to display that the search is in progress through lines 3-4, when in line 5, he returns to the and produces a noun, "*ongaku bangumi*" (music programs) which specifies the referent "*are*" in line 2. This is especially similar to Excerpt 5 where Yanti

used “what” as a placeholder, kept her turn while searching for the word, and then retroactively presented the word “paper” that specifies the word she was searching for.

These examples from Excerpts 4, 5, and 6 suggest that the “what” final word search initiation it is not only a linguistic transfer of Japanese “*nani*” (what), but possibly a more commonly used word search initiation method in L2-L2 interactions, especially for continuing a solitary search for the word while specifying the location of the word in the utterance. By doing so, the speaker is able to keep the turn and maintain their epistemic position of K+ of the word or language, while continuing to search for the lexical item.

Word search initiations in ELF interactions were overall similar to previous findings in L1-L1 interactions as described in Section 2.5.1, including the use of gaze. Some of the exceptions, as demonstrated in this section, were the use of code-switching and what final turns. Elongation of vowel sounds were found used with non-Japanese participants (Carroll, 2005). In addition, the word searches initiated by the L2 speaker were given a chance to self-repair if there was indication of a solitary search, where as support from the interlocutor came if a co-search was addressed through gaze and rising intonation.

4.3. Candidate Solution of Word Searches

Of the 282 word search sequences initiated by the Japanese participants, the vast majority of 239 (84.8%) cases were followed by a candidate solution by the Japanese participants; Ami 81, Maya 83, Tomoko 25, and Yoko 50 cases. This excludes all single turn self-initiated self-repair sequences. Therefore, even after initiating a word search and not being able to repair it immediately, there is still a preference toward self-resolution of the word search, and/or the need to attempt to resolve in order to reach a mutual understanding.

This section will focus on this particular pattern of attempted resolution of the word search by the Japanese participant, the type of strategies used, and the responses by the

interlocutor, and discuss how mutual understanding is achieved. The major resolving methods used by the Japanese participants were:

1. Candidate word
2. Code-switching
3. Sematic Contiguity (Word descriptions, explanations, and associations)
4. Gestures
5. Using the dictionary

In most cases, the Japanese participants utilized a combination of these methods. However, I will go over the relatively clear cases in which these resolving methods were utilized.

4.3.1. Candidate word

The most common method the Japanese participant employed was providing candidate words or sounds, with 134 out of 282 cases. These include the providing of a sound associated with the word in search and non-standard English language use.

One of the most common resolving moves by the speaker was presenting a candidate word after the initiation of a word search. These were often accompanied by prosody, however, not always. In the first example, Excerpt 7, Yoko is comparing Korean and Japanese food.

<Excerpt 7: Yoko Cheng May Snacks>

1		Yoko:	but mm::
2			(2.8)
3		Yoko:	*nanyaro*
			"what is it"
4			(2.9)
5	→	Yoko:	snacks? or:: sweets are
6			very:: similar I think
7		Cheng:	°mm: mmh°

In lines 2-4, Yoko pauses and uses "*nanyaro*" (what is it) to display her search of a word is ongoing. Yoko then presents a candidate word of "snacks" with a rising intonation. This is then followed by another candidate of "sweets" (line 5). Cheng shows understanding

through her backchanneling after Yoko completes her turn (line 7). Therefore, by using the previously mentioned "word search markers" and presenting candidate words that were intelligible and congruent, Yoko was able to self-complete (self-repair) the search at hand. This candidate word use is the same as "try-marking" (Sacks & Schegloff, 1979) where a rising intonation is used after a word to display that the speaker anticipates that the hearer may have trouble recognizing it.

Often in the collection, unlike in Excerpt 7, the candidate words were followed by a confirmation request, repair, or a request for further information from the interlocutor. An example of this is shown in Excerpt 8, a segment from Ami and Soo's conversation in June. The two are talking about the starting age for the Korean military conscription system.

<Excerpt 8: Ami Soo June Minimum>

```
1       Ami:    =↑how old (0.4) d- did (.) do people
2               have to go da (0.4) BA (.) ba:i?
3   →           ah: (0.5) da meene (.) meene (.)
4   →           [meenemam?=
                [((clap → tilt head))
5       Soo:    =minimum?=
6       Ami:    =minimum?=
7       Soo:    =↓ah: (0.4) minimum is: ss (.) minimum is
8               ss (0.3) <eighteen>, and maxshimum is
9               (0.4) there is n- (.) actually there is
10              no maximum
11      Ami:    (0.4) oh really?=
```



Figure 5.7. Line 4 Ami clap



Figure 5.8. Line 4 Ami tilts head

In line 3, Ami pauses and repeats the sound "meene" displaying trouble with the item. She then completes her turn with a candidate word "meenemam" with a rising intonation (line 4). While presenting her candidate word, Ami claps (Figure 5.7) and tilts her head (Figure

5.8) while keeping eye contact with Soo. Completing her turn with the clap suggests that Ami was able to recall the possible word she is searching for. At the same time, the rising intonation and head tilt also suggests that Ami is unsure of the accuracy of the candidate word or anticipating that Soo may have trouble understanding the word she had just presented.

Soo then with no hesitation requests for confirmation through a presentation of her understanding, “minimum” with a rising intonation (line 5). Which is then repeated by Ami in a similar way (line 6). Soo shows her understanding of line 6 as a confirmation with “ah” and starts to answer Ami’s question (line 7). Therefore it could be said that they have reached a mutual understanding.

Comparing Excerpts 7 and 8, we can understand that after the Japanese participant’s unconventional word use (Excerpt 8) a candidate understanding from the interlocutor is presented (i.e., minimum).

However, unlike Koshik and Seo’s (2012) study where they only found confirmation or correction, in the ELF corpus of this study, there were cases where there were no explicit response by the interlocutor even in cases of unconventional language use. Instead, continuous gaze or backchanneling was often used to suggest that the Japanese speaker to continue with the talk. The example below between Maya and Yanti in November illustrates this point. Maya is sharing her surprise when learning that Americans wear bathing suits in hot springs.

<Excerpt 9: Maya Yanti November Swimsuits>

```
1     Maya:     they (0.5) take (0.8) nh,
2               (0.4) wo (.) <water> (0.3)
3  →            °water° (0.2) clothes?
4     Yanti:    ↑MH::::: °yeah°
```

In lines 1-2, Maya displays trouble through cut-offs and repetition of “water.” She then completes her turn with “clothes” with a rising intonation (line 3). This “water clothes”

with the use of a soft voice, pause, and prosody could be seen as not only a try-marking of a candidate word but also what Firth (2009) calls "flagging for markedness" whereby an L2 speaker marks the way they are phrasing something that is possibly incorrect, and that they are aware of it. Yanti then shows strong agreement through a high pitched and loud "mh" followed by "yeah" with no delay (line 4). Yanti is thus displaying mutual understanding. Therefore, in accordance with Firth's (1996) noticing of "normalizing" behaviors in ELF talks, not all unconventional language uses are policed and repaired in the interaction.

In contrast, there were often cases when the Japanese participant would explicitly form the word search sequence into a "learning opportunity" (Brouwer, 2003) as shown below in the continuation of the previous excerpt.

<Excerpt 10: Maya Yanti November Swimsuits>

```
1     Maya:    they (0.5) take (0.8) nh,
2              (0.4) wo (.) <water> (0.3)
3              °water° (0.2) clothes?
4     Yanti:   ↑MH::::: [°yeah°
5  →  Maya:             [wha wha
6              >how do you say<=
7     Yanti:   =ss swim swim
8  →  Maya:    ah SWIM? (0.5) swim °suit°?
9     Yanti:   swim swimsuits
10    Maya:    swimsuits [mh::
11    Yanti:             [yes
```

Although Yanti exhibited mutual understanding and agreement in line 4, Maya overlaps and asks Yanti "how do you say." Although there was not a clear rising intonation, Yanti responds by stating, "swim," and herself then displaying trouble searching for the word through repetition (line 7). Maya then repeats "swim," and presents a candidate word with a rising intonation, "swimsuit" (line 8). Yanti confirms this through repetition (line 9). Maya thus puts the progressivity of the interaction on hold to do a language learning activity in talk.

This phenomenon coincides with Theodórsdóttir's (2011) work where L2 Icelandic speakers, as customers in business interaction (e.g., bank, post office), will temporarily

suspend the progressivity of the talk to confirm the accuracy of the word choice, even when the clerk has already understood the goal of the business transaction. Thus suggesting that orientation to language learning is omnipresent in L2 talk, "perhaps even more so in the beginning stages of the acquisition" (Theodórsdóttir, 2011, p. 204).

From a different perspective, if Yanti had initiated a word search side-sequence, it would have exposed Maya's lack of linguistic ability or her K- epistemic position in terms of the English language. Therefore, by Yanti not responding to the try-marking used by Maya as word search sequence, Yanti is able to "save face" (P. Brown & Levinson, 1987) of Maya, and at the same time progress the conversation.

The above extracts demonstrated candidate "words" used as candidate solutions for the self-initiated word search. However, at times, the candidate word would come out as a "sound" or an approximated sound of the word. The first example is between Ami and Hang in June. The topic of the talk is about the difference of Korean and Japanese *kimchi* (fermented cabbage pickle).

<Excerpt 11: Ami Hang June Sour>

```
1     Ami:    =BUT (.) Koreas kimuchi is:
2     Hang:   ↑hehe
3     Ami:    <↓spi[cy::>
4     Hang:         [very spicy:?=
5     Ami:    =↑AND (.) SO:: (.) .sss (.)↑hmm
6             (0.9)
7     Ami:    .ss [°how do you say°] ↓ah::
                  [((mutual gaze)) ]
8     Hang:   hah:
9  →  Ami:    hmm:: (.) .ss sa (.)[sappa:?
                                  [((mutual gaze))
10            (0.6)
11    Hang:   ◦sappa◦
12    Ami:    sappa?=
13    Hang:   =<↑sup(.)↓per> (.) ↑sup↓per
14    Ami:    [↑sup↓per?    it's
              [((head tilt))
15            (1.3) ((Ami holds her mouth))
16    Hang:   wo?
17            (0.6)
18    Ami:    ah: supper?
```

```
19              (1.2)
20 →  Ami:      °sssup° (0.6) like a lehmohn? (.) lemon=
21    Hang:     =suppai? =
                 "sour"
22    Ami:      =↑SUPPAI
                   "sour"
23    Hang:     (0.4) ↑ah:: so:r
24    Ami:      (0.4) so[:r?
25    Hang:             [so:r
26    Ami:      (0.4) [so:r: ohohoho $do you$ (.) $do you:$
27    Hang:           [↑hmm
28    Ami:      (.) $do you kno:w (.) ss <suppai?>$
                                          "sour"
29              [hahahaha
30    Hang:     [un ya hehehe
31    Ami:      $okay suppai$ ehehehe=
32    Hang:     =hehehehehe
```



Figure 5.9. Line 9 "sappa?"



Figure 5.10. Line 14 "supper?"



Figure 5.11. Line 15 Ami holds mouth

From line 5, Ami begins to hedge, uses pauses, and displays trouble locating the next item. Then, in line 7, she says, "how do you say" with mutual gaze. Ami continues to show thinking of the target word through various sounds while disengaging eye contact with Hang. She then presents a candidate sound "sappa" with a rising intonation and eye contact (line 9, Figure 5.9). Hang after a short delay, repeats "sappa" with a soft voice (line 11), which Ami

repeats again (line 12). This can be understood as Hang displaying thinking or showing non-understanding, while Ami taking Hang's repetition as a hearing issue and repeating the same sound.

Hang then presents a candidate understanding of "supper" (line 13). Ami repeats Hang with a similar intonation, however with a rising intonation and tilting of the head (line 14, Figure 5.10), suggesting that Ami does not agree with the repair but is still unsure. Ami then moves on to use gestures of holding her lips and spreading it to the sides, possibly making a "sour" face (line 15, Figure 5.11). However, Hang again shows non-understanding with "wo?" (line 16). After repeating "supper" again and a long silence, Ami repeats the "s" sound, showing that the word she is searching for most likely has an "s" sound, and provides an approximation, "like a lemon" (line 20). Hang then presents a Japanese candidate understanding of "*suppai*" (sour) (line 21). Ami strongly agrees and accepts this candidate word by repeating Hang with a high pitch and loud voice (line 22).

When Ami confirmed Hang's candidate understanding and mutual understanding was reached, Hang then presents the English equivalent, "sour" (line 23). Although Hang's pronunciation is not native like, Ami accepts it through multiple repetitions of the word with a similar pronunciation as Hang (line 24, 26). Therefore, when a candidate word was presented as a "sound," a longer side sequence for negotiation tended to take place. Moreover, in most cases, the side sequence continued until the interlocutors reach a mutual understanding.

What is noteworthy here, is that once Ami knows that Hang knows the Japanese word for sour, she suggests using the Japanese word "*suppai*" (sour) as the common expression (line 31). Ami showing a favor towards the Japanese word, suggests that in an ELF environment, the preferred language is not predetermined, and the host country language has a strong influence on the speaking environment.

To sum up, the use of candidate word or sound was the most common word search candidate solution method, and these words and sounds were most commonly marked with prosody. Not all candidate words which were unconventional were repaired by the other, demonstrating the preference of the interaction towards progressivity and self-repair. Therefore, although the prosody and candidate words demonstrate lack of confidence with the speaker's word choice, this was not commonly oriented to by the interlocutor, thus maintaining an equal epistemic position in terms of the English language knowledge among the participants in the talk. However, when candidate sounds were used which hindered mutual understanding, the word search side-sequence tended to become longer and continued until mutual understanding was reached.

4.3.2. Code-switching

Code-switching was the second most common candidate solution employed by the Japanese participants. From analyzing the collection, I categorized the code-switching practices into two; (a) using loan words and (b) using Japanese. Below, I will exemplify cases where loan words were used, followed by cases where Japanese was used as a candidate solution for the self-initiated word searches.

Using katakana words (loan words). This sub-section demonstrates cases where loan words or *katakana* was used as a candidate solution. Kurhila (2006) discusses the idea of "Fennicized words" which are used by the L2 speakers in attempt to resolve word searches. These "Fennicized words" refer to non-Finnish words which have phonology and/or morphology that were adjusted to have Finnish phonology or morphology. In my corpus, there were similar cases where speaker would use English loan words which have become part of the Japanese language, which are called *gairaigo* (foreign words) or *katakana* words (loan words) when attempting to resolve self-initiated word searches. These words are often

English words pronounced with additional or changed vowel sounds (e.g., pickles as *pikurusu*) or other languages adapted to the Japanese culture (e.g., *arbeit,* labor in German, as *arubaito,* part time job in Japanese). The word's country of origin is not differentiated in the Japanese culture, thus English L2 speakers may, and would often, assume that all *katakana* words are from English, and apply it to English interactions.

The first example is between Ami and Hang in May when the two are sharing their thoughts about the cafeteria food and where the pineapples are located in the cafeteria.

<Excerpt 12: Ami Hang May Cashier>

```
1     Ami:     ah: near da l- reji? (0.3)°reji°.
2              (0.9)
3     Hang:    neji?=
4     Ami:     =re↓ji
5     Hang:    (0.2)[↑ymh: reji
6     Ami:           [((typing gesture))
7     Hang:    Cashier
8     Ami:     cashe:r? (0.3) and near the le-
9              ah: cashe:r,
10    Hang:    Mhh
```



Figure 5.12. Line 6 Typing

In line 1, Ami cuts off the "l" sound and then utters the Japanese *katakana* word "*reji*" (cashier, originating from "register") with a rising intonation. After a slight pause, Ami then repeats "*reji*" with a soft voice and falling intonation, suggesting her lack of confidence in her word choice. After a relatively long pause, Hang presents her candidate understanding of "neji" with a rising intonation (line 3), which is then declined and repaired by Ami (line 4). Hang then shows a change of state through a high-pitched "ymh" and repeating of "*reji*" (line 5), while Ami uses her gesture to describe the object (Figure 5.12). Although it is not clear if

Ami's gesture supported the understanding, Hang then presents her version of the word as "cashier" (line 7). Ami repeats "cashier" with a rising intonation, possibly to request confirmation (line 8). When there is no negative response from Hang, Ami then recycles the original statement in line 1, "near the," but replacing "*reji*" with "cashier" (line 9). As a result of using *katakana* as a candidate solution, the two were able to reach a mutual understanding.

Moreover, through the repair work, different membership categorizations were emerging. In Excerpt 12, we can see the Japanese participant, Ami, using the *katakana* word ("*reji"*) and then being repaired by the interlocutor, Hang. Furthermore, the repair work by Hang is done naturally through multiple steps. Hang first shows understanding of Ami's utterance by using a change of state repeating the presented word "*reji*" to acknowledge Ami's word choice. She then presents her version of the word "cashier." Ami orients to this as a possible learning opportunity and restates her initial sentence with the newly presented word. In this segment, the differences in the speaker's possible linguistic knowledge become apparent. That is, through Hang's explicit repair work, she presents herself in the K+ position of the English word "cashier," or a relative English language expert, while Ami orienting to this segment as a learning opportunity displays her K- position or a relative novice. This is contrastive to Excerpt 10 where the partner did not repair Maya until explicitly prompted.

However, the use of *katakana* words as a candidate solution did not necessarily lead to accurate mutual understandings or become learning opportunities. An example of this can be found below in Excerpt 13. This excerpt is from Maya and Kei in July. The two are talking about the Japanese culture course Maya is taking, and the "cute culture" which was introduced in class.

<Excerpt 13: Maya Kei July30th Lace Aura>

```
1      Maya:     the woman. (0.4) °its° (0.4)
2                ↑color of (0.4) pink? (1.0)
3   →            o:r (1.2) re:s? (0.4) le- leesu,
```

```
4      Kei:      lace?
5      Maya:     lace?
6                (1.0)
7      Maya:     a::nd-
8                (2.0) ((moves hands next to body))
9   →            HH (1.2) [ahula? (1.0) oh:la?
                          [((hands next to body))
10               (1.8) [>$kira kira kira$<  hh
                          "sparkle sparkle sparkle"
                       [((hands next to body))
11     Kei:              [°ahura,°
12     Maya:     hahah (0.8) n::=
13     Kei:      =twinkle twinkle.
14     Maya:     twinkle?
15     Kei:      yeah. (0.6) bling bling.
16     Maya:     blin, [↑ah: blin. (1.2) a:ndu un.
                       [((big nod))
```



Figure 5.13. Line 8 (2.0)



Figure 5.14. Line 9 "ahula"



Figure 5.15. Line 10 "kira kira kira"

In order to explain the idea of "cute culture," Maya introduces associated images such as "pink" (line 2) and after long pauses introduces the idea of "lace" (line 3), however with a *katakana* pronunciation of "leesu" (line 3) with extra vowel sounds. Kei then introduces a more English (Northern American) pronunciation "lace" with a rising intonation (line 4). Maya then repeats this with the same intonation (line 5). Kei's utterance in line 4 could be seen a repair or a request for repair, which is then responded by Maya with a repetition.

Kei does not follow up after Maya (line 6) in providing a confirmation. When Kei

does not respond, Maya attempts to continue with her explanation (line 7). However, Maya again pauses her utterance and moves her hands along the side of her body while twisting her wrist to display a solitary word search (line 8, Figure 5.13), and presents her candidate *katakana* word "ahula" with a rising intonation and a short version of the gesture (line 9, Figure 5.14). When there is no response from Kei (line 9), she changes the first vowel sound of the word and presents another candidate *katakana* "ohla" and waits for a response (line 10). However, Kei again does not respond (line 10).

Maya then uses a Japanese onomatopoeia "*kira kira kira*" (sparkle sparkle sparkle) to describe the word she is attempting to express again with a similar gesture to used in line 8 (line 10, Figure 5.15). However, this is followed by her laughter (line 10), thus marking the word (Firth, 2009) and displaying that she understands it is not a conventional word use or the preferred language for the interaction. Kei then finally shows his candidate understanding of Maya's utterance as "twinkle twinkle" (line 13). When Maya displays non-understanding or uncertainty through a repetition with a rising intonation (line 14), he then introduces a different expression of "bling bling" (line 15).

"*Kira kira*," and "bling bling" hold different connotations and describe different attributes of a person. For instance, a girl who is "*kira kira*" could mean some one wearing cute pink clothes and curled long hair, while "bling bling" could refer to a person wearing sexy clothes and gaudily jewelry. Nevertheless, Maya shows a change of state through "ah" and repetition the word "bling," and continues with the description of the course (line 16). Kei does not explain further what "twinkle" or "bling" means, suggesting that he understood Maya's "ah" and repetition as a confirmation and a sign of mutual understanding. Similarly, Maya does not further pursue the meaning of "twinkle twinkle" or "bling bling."

This example suggests (although it cannot be proven by the excerpt and from the

method of CA) that even though the interactants indicate that they have reached a "mutual understanding" as a sequence, it may not be an "accurate understanding." Furthermore, by Maya not requesting the meaning of "twinkle twinkle" and "bling bling," it shows that not all word search sequences are oriented to as learning opportunities. In contrast, progressivity of the talk seems to have been prioritized.

Excerpt 14 is a similar example demonstrating where the participants orient to progressivity of the talk over language learning or an accurate mutual understanding. The talk is between Tomoko and Maria in October regarding foods they dislike. Tomoko uses a *katakana* word ("*pikurusu*"), which leads to a possible superficial intersubjectivity.

<Excerpt 14: Tomoko Maria October Pickles>

```
1     Tomoko:   °ahh°(.) pikurus?
2               (0.6)
3     Maria:    pikurus? (.) what's pikurus,
4               (0.8)
5     Tomoko:   °I (do)nno° but it's call
6               in English ↑pikurus::
7     Maria:    pikurus:
8     Tomoko:   ↑pikurus:
9     Maria:    khhe (0.8) $sounds cute$.
10              (1.1)
11    Maria:    °pikuru°=
12    Tomoko:   =eh,
13              (1.3)
14    Tomoko:   that is always in:: (0.7) hamburger
15    Maria:    ↑OH:::: [like°h° (.) ↑cow meat?
16    Tomoko:           [((moving rounded fingers))
17    Maria:    °or something°? Er
18              (0.5)
19    Maria:    pickles?
20              (0.9)
21    Tomoko:   the ↑green one.
22    Maria:    oh:: the relish:  (.) yeah:=
23    Tomoko:   =↑rulish?
24    Maria:    yeah:: relish:
25    Tomoko:   ((nods and shakes head))
```



Figure 5.16. Line 16 Tomoko's rounded fingers (horizontal OK sign)

In line 1, Tomoko hesitates and then completes her turn with a candidate *katakana* word with a rising intonation. This hesitation could be displaying thinking of the answer to the question rather than searching for a word. However, Tomoko completes her turn with a rising intonation, which could be understood as lack of confidence in her word choice. Maria then requests repair (line 3). Tomoko defends her word choice by explaining that it is an English word (line 5-6), although Maria is from the United States (Hawaii).

When the repetition does not solve the non-understanding issue (line 8), Tomoko uses "*eh*" (Hayashi, 2009) to initiate a new turn and show she is surprised that Maria does not know the word (line 12). Tomoko then moves on to explain the object (being in a hamburger) and uses gestures (Figure 5.16). Maria uses change of state token "oh" to suggest that she has understood. However, she then presents her candidate understanding of "cow meat" (line 15) and "pickles" (line 14) with a rising intonation, displaying uncertainty. This is similar to Wong's (2000a) finding in L1-L2 talk where participants claimed their understanding with a change of state token, but soon after initiates repair.

Tomoko does not confirm any of the candidates (line 20) and continues to provide more hints as "the green one" (line 21). Maria then again shows a change of state and her candidate understanding of "relish" (line 22). This time, the candidate understanding is presented with no rising intonation and Maria continues and displays agreement with

Tomoko's dislikes (line 22). Tomoko repeats with a rising intonation with a slightly different pronunciation, which is then confirmed or slightly repaired by Maria (lines 23-24). Tomoko does not self-repair, but nods and signals the end of the word search side sequence.

From an emic CA perspective, one can claim that the two are using various strategies and affordances, and through "cooperative collaboration" the two were able to reach a mutual understanding of "*pikurusu*" being "relish." Although they display a mutual understanding, similar to the previous example, the accuracy of it is questionable from an etic perspective. Both Excerpt 13 and 14 demonstrate the use of *katakana* words in attempting to resolve a word search, however both word search side sequences leads to what I refer to as "superficial intersubjectivity." In other words, the speakers display mutual understanding and move on with the conversation, despite agreeing on different objects of understanding. Therefore, although it cannot be said for all cases, in non-institutional ELF interactional environments, accuracy of the mutual understanding does not seem to be important. This is contrastive to service encounters, such as restaurants, where progressivity is put on hold in securing an accurate intersubjectivity (Kuroshima, 2010).

Analyzing the excerpt more critically, one can also claim that Tomoko in line 6 claims her accuracy of the word choice, ignores (or does not hear or recognize) Maria's candidate understanding of "pickles" (line 19), and then does not self-repair her pronunciation of the word "relish" (line 25). Therefore, Tomoko is not cooperative in achieving intersubjectivity, nor does she orient to the sequence as a potential learning opportunity. Although Tomoko at the end accepts "relish" as the word for the object she is referring to, it can be said that she maintains her position as a "knower" or K+ position of the English language even with a L1 speaker.

Using Japanese words. The cases shown in Excerpt 12 to 14 were cases where

katakana words (loan words) were used. Below, I will introduce cases where the Japanese participant uses Japanese in order to potentially solve the word searches. What is interesting to note here is that there were many more cases where the Japanese participants would use Japanese with no hesitation during word search sequences, especially at the early stages of joining the dormitory. The first example is from April between Maya and Kei. Maya is sharing her first-day-of-class experience.

<Excerpt 15: Maya Kei April Between>

1		Kei:	diju have a break?
2	→	Maya:	(0.5) yeah ah::::: (0.7) °ai°
3		Kei:	(0.3) mh?
4	→	Maya:	°*aida*°
			"between"
5		Kei:	between?
6		Maya:	between?
7		Kei:	Yeah
8		Maya:	(1.0) five (.) minutes(.) break
9		Kei:	↑AH FIVE minutes break

In line 2, Maya uses an elongated "ah" and cuts off the "ai" or "I" after a pause, displaying trouble finding the next word that follows. When Kei presents an open class repair initiation "mh" (line 3), Maya switches to Japanese "*aida*" (between). The lack of prosody after the Japanese word suggests that Maya expects Kei to know the word "*aida*." Thus Maya presenting her lack of knowledge of the English word "between" and positioning Kei as the "knower" for both the English and the Japanese word. Kei repairs Maya with the direct translation of the word "between" with rising intonation (line 5), and Maya repeats Kei exactly with the same intonation (line 6). Kei then confirms this in the next turn (line 7).

This word search sequence can also be seen as an Initiation Response Feedback (IRF) sequence (Sinclair & Coulthard, 1975) common in classroom practice. That is, Kei presenting the model (Initiation), Maya repeating it (Response), and Kei following up with a positive response (Feedback), as shown below. As a result, Kei displays a teacher-like identity even in a non-classroom ELF interaction, and possibly suggests his display of superiority in his

English language knowledge over Maya.

```
5       Kei:    between?      --Initiation
6       Maya:   between?      --Response
7       Kei:    yeah          --Feedback
```

This IRF sequence was a common practice observed between Maya and Kei. However, this was not commonly found between Maya and other partners, or among other participants.

Even when using Japanese as a candidate solution, depending on the following turns or the response of the interlocutor, the flow of the sequence and membership categorization in the talk can be quite different. The following case shows a Japanese participant using Japanese as a candidate solution but not orienting to an English novice or K- position. Excerpt 16 is from Ami and Hang in November when the two are discussing the school festival.

<Excerpt 16: Ami Hang November Food booth>

```
1       Ami:      but ac- (.) actually ah
2                 (.)I was joini:n' da:
3                 (0.3)
4       Hang:     [◦un◦
5       Ami:      [ah (0.2) like
                  [((Ami house gesture))
6       Ami:      mogite:n?
                  "booth/store"
7  →              (0.4)
8  →    Hang:     [°mo°
9  →    Ami:      [mogiten is ↓shop
                  "booth/store"
10                (0.5)
11      Hang:     [↑ah::
12      Ami:      [it was sho:p
13      Hang:     food?
14      Ami:      (0.4) ya [food shop (.) food shop
15      Hang:              [(         )
16                mm (0.2)((nodding))
```



Figure 5.17. Line 5 Roof of house



Figure 5.18. Line 5 Walls of house

In line 5, Ami tries to explain what she was doing on the day of the school festival when she pauses and says "like" which is could be used to express "focus," "approximation," or both (Fuller, 2003a, 2003b), while using her hands to draw an outline of a house with a roof and walls (Figure 5.17-5.18). This suggests that there is an ongoing a word search. Only when she completes her house gesture she presents the word "*mogiten*" (booth, store, or stall) with a rising intonation (line 6).

When Hang does not immediately respond (line 7-8), Ami repeats the word and then provides a synonym of "shop" (line 9). After a short silence, Hang then responds to show understanding (line 11) while Ami repeats in a full sentence "it was shop" (line 12). Hang then returns to the main topic of Ami's activity and asks if she was selling food (line 16), which is then confirmed by Ami through repetition of "food shop" (line 17).

What is interesting here is Ami's word choice. Ami displays that she knows the word "shop" through her quick translation providing in line 9. However, Ami does not choose it as her first choice, instead, chooses the word "*mogiten.*" This suggests that the word "*mogiten*" describes the target object more accurately than a "shop."

Moreover, through Ami's quick self-repair in line 9 after a pause and a partial repetition, Hang did not have to explicitly express her non-knowing of the word of *mogiten* (line 8). In addition to this, the conversation did not have to go off to a longer word search side sequence as many of the previous examples. This is similar to pre-emptive repairs (Cogo, 2010; Kaur, 2009; Mauranen, 2006) done by L2 speakers in ELF interactions to avoid misunderstandings or non-understandings. As a result, both participants were able to "save face" (P. Brown & Levinson, 1987), that is, Hang from displaying not knowing the Japanese word, and Ami the English word.

The use of Japanese may not have been the direct cause of achieving mutual

understanding in the sequences found in this study's collection. Yet, from the excerpts it can be observed that code-switching was chosen as the first method over others in attempting to resolve the trouble in many cases. Therefore, code-switching could be understood as one of the most accessible affordances for the Japanese participants as a candidate solution in word search sequences.

However, the preference towards code-switching also seems to change in ELF interactions once the participants either develop their English language skills or discover that code-switching does not always work. This can be interpreted from the frequency of the use of code-switching as a candidate solution which is shown below in Figure 5.19 and 5.20. Figure 5.19 displays the overall frequency of the use of code-switching as a candidate solution, and Figure 5.20 displays the percentage of the code-switching used in comparison to the other methods of candidate solutions.

As it can be seen from the graphs, there is frequent use of code-switching by the Japanese participant in the early stages of the study. Furthermore, as time goes by, the Japanese participant is less reliant on code-switching. The frequent use of code-switching in resolving word searches at the early stages may suggest the Japanese participants' (a) reliance on their L1, (b) their assumptions of the interlocutor to be sharing the same Japanese knowledge, or (c) knowledge that their partners are taking Japanese language classes (regardless of proficiency level). This underlying assumption of a shared second language can be said to be a feature specific to an ELF context situated in a relatively monolingual country of Japan. Moreover, from the graphs, we can observe the decrease of the use of code-switching, possibly due to the participants (a) realizing that code-switching has minimal impact on resolving word searches and (b) utilizing other candidate solution methods. This change in the use of code-switching could therefore be considered as a calibrated strategy

where the Japanese participants adjusted their use as they learned more about their interlocutor's Japanese ability and as their partners increased their Japanese proficiency.

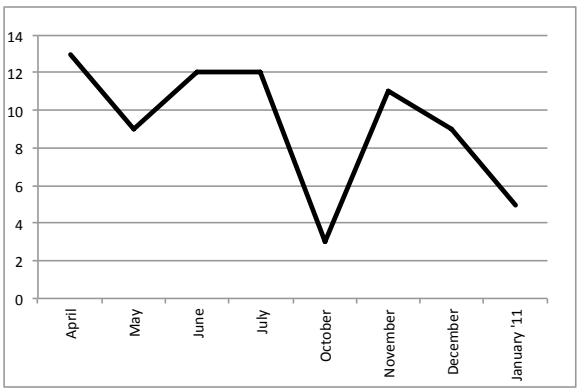


Figure 5.19. Overall frequency of code-switching use in resolving a word search

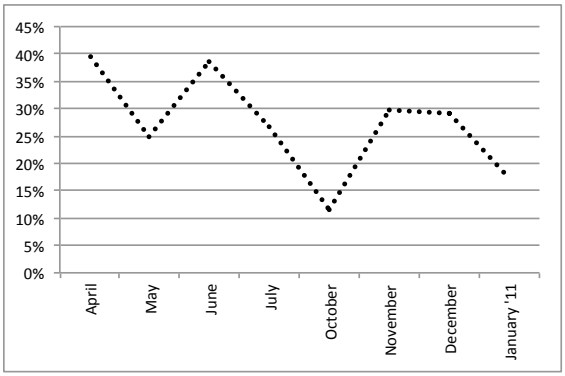


Figure 5.20. Percentage of code-switching use in resolving a word search

To summarize, the use of a Japanese or *katakana* word in attempting to solve the word search is similar to bilingual interactions where the speaker would switch to another commonly shared language in resolving the trouble in talk or word search (e.g., Greer, 2013). However, unlike bilingual interactions where speakers anticipate or expect that the other will know the word, in ELF interaction that is not always the case. Furthermore, the use of code-switching tends to expose the participants' linguistic ability in the original language they were talking in or the language that was switched into. Therefore, depending on the interlocutor's linguistic knowledge, some word searches were solved rather quickly, while other sequences took multiple turns to reach a mutual understanding after the use of code-switching as a candidate solution. What is more, the preference towards using code-switching as a main

method of a candidate solution for a word search seems to shift as the participants become immersed into the ELF environment.

4.3.3. Semantic contiguity (Descriptions, explanations, and associations)

The third most common candidate solution move used by the Japanese participants was using their linguistic knowledge, such as providing definitions, synonyms, or associated words. This is similar to what Kurhila's (2006) calls "semantic contiguity" used by the speaker in resolving the word search. Speakers employ semantic contiguity when, "trying to describe an unknown referent so that the speaker tries to make the referent identifiable through synonymic, metonymic, anatomic or superordinate relations to other words she knows and remembers" (Kurhila, 2006, p. 117).

Excerpt 17 is a typical example of the use of semantic contiguity from the collection of this study between Ami and Soo in June. They are talking about Ami's trip to Korea and her survey she conducted regarding plastic surgery in Korea.

<Excerpt 17: Ami Soo June Plastic Surgery>

```
1      Ami:    (0.5) so (.) ↑ah (0.5) da another grou:p?
2              ah: very I'm interested in (.) da: research?
3   →          beco:use (.) dey resea:ch about the: (0.5)
4   →          hmm::: $change the face:$? hh=
5      Soo:    =change?
6      Ami:    .hh
7   →  Soo:    [ah: plastic surgery?
8      Ami:    [↑ah::
9              (0.5)
10     Ami:    >↑ya real so [ya yes<
11     Soo:                [↑AH::
```

Ami initiates a word search through hedging and elongated vowel sounds (line 3), then presents a candidate solution "change of face" (line 4). This use of semantic contiguity is accompanied with a smiley voice and laughter, and "flagging for markedness" (Firth, 2009) of the word choice. Therefore, suggesting Ami's recognition that it is a non-standard language use and Soo may have difficulty understanding it. Soo then requests for repair through the

repeating of "change" with a rising intonation (line 5). However, before Ami can repair, Soo presents a candidate understanding of "plastic surgery" (line 7), which is confirmed by Ami (line 10).

It is highly possible that Soo is able to understand Ami's use of semantic contiguity due to the fact that she is from Korea, and Ami is talking about Korean culture. As such, these cases with using the strategy of semantic continuity seem to evoke high dependence on the interlocutor's cooperation and knowledge.

A similar example is displayed in Excerpt 18. This sequence is from Maya and Kei in February 2012, when the Maya is talking about her landlord.

< Excerpt 18: Maya Kei February 2012 Mental>

1		Kei:	so the owner doesn't like Korean
2			(0.4) Chinese and Japanese.
3		Maya:	u::. but owner is Japanese.
4		Kei:	° okay. °
5		Maya:	° un. °
6		Kei:	° un. °
7	→	Maya:	spiritual (0.8) sick?
8			(0.4)
9		Maya:	*eh*?
			"huh?"
10	→	Kei:	mentally sick.
11		Maya:	mentally sick. *un*.
			"yeah"

In line 7, Maya describes the owner as "spiritual sick" with a relatively long pause of 0.8 seconds in between and rising intonation. This is then followed by a prosody-marked "*eh*," indicating that she is unsure of the word choice (Hayashi, 2009). Kei repairs Maya by saying "mentally sick" with a falling intonation (line 10), displaying his sureness of his repair word choice. This is then repeated and confirmed by Maya (line 11). Similar to the previous example, although Maya attempts to resolve her word search through using English, by using semantic contiguity, she is apt to rely on Kei's cooperation and linguistic knowledge in reaching a mutual understanding. As a result, Maya displays her relative novice position of an English language user.

On other occasions, the associated concepts related to the sought out word are not as explicit and clear to the interlocutor as in the previous examples. Therefore a longer sequence is used in order to reach a mutual understanding. Excerpt 19 is between Ami and Hang in October, talking about Hang's trip to Tokyo.

<Excerpt 19: Ami Hang October Experience>

```
1     Ami:    so (.)ah:: what what things ah:::
2             how to say that .hhh (0.3)
3             what [thing?
                   [((gaze Hang))
4             mmm (0.5)ah::: do you like the ↓best
5             (.) I mean da (.) whats mm:::
6             (.) whats [happen? or=
                        [((gaze Hang))
7     Hang:   =mmm
8             (0.5) ((Ami put hands together))]
9     Ami:    .su:::=
10    Hang:   =experience?=
11    Ami:    =du (.)↑yeah experience ↑ah:::=
12    Hang:   =ex↑perience
13    Ami:    >yeah yeah yeah<
```



Figure 5.21. Line 1 "ah"



Figure 5.22. Line 3 "thing"



Figure 5.23 Line 5 "mm"



Figure 5.24. Line 6 "happen"



Figure 5.25. Lines 8-9 Inhale with gaze

In line 1 (Figure 5.21) Ami shows hesitation, repetition, and a thinking face which can be seen a "solitary word search" (M. H. Goodwin, 1983b). Ami then says "how to say that" (line 2) and restarts the question "what thing" with a rising intonation with gaze to Hang (line 3, Figure 5.22). This can be seen as a display of trouble locating the next word, and an invitation for Hang's co-participation in the word search (Carroll, 2004; C. Goodwin, 1980; M. H. Goodwin, 1983b; Laakso & Klippi, 1999). However, Hang does not take the turn, and Ami finishes the sentence with "do you like the best" (line 4). Ami then uses "I mean" (Maynard, 2013) to keep her turn and speakership, and she halts with a thinking face indicating that she is still looking for a word (line 5, Figure 5.23).

Ami then recycles "what," this time followed with "happen" with a rising intonation and gaze (line 6, Figure 5.24). However, this turn ends with a turn-final "or" (line 7). Drake (2013) argues that in English conversations, a turn-final "or" works as epistemic downgrade and it presents the speaker "backing down from a proposition and indexing uncertainty" (p. 156). Therefore, from the multiple gaze accompanied rising intonation after "what" and the turn final "or," Ami is presenting the "thing" or "happening" as the semantic contiguity and invites Hang's help in solving the word search. At the same time Ami displays her K- position of the word, and positions Hang in the possible K+ position. In line 7, Hang finally responds with a soft "mmm" but does not complete the turn or answers the question. Ami then puts her hands in front of her mouth, shows a thinking face, and inhales largely. By doing this, Ami

shows that she is still searching for the word while keeping mutual gaze and invites Hang to join the word search (line 8-9, Figure 5.25). Hang then finally presents a candidate understanding of "experience" (line 10) with a rising intonation.

Ami's gaze work is quite interesting here in a way that is similar to the discussion of gaze work in Excerpts 1 and 2 (Section 4.2.1). In this short segment, Ami goes in and out of solitary search, and systematically manages Hang's participation in the word search through her words and gaze work. As a result, Ami is able to manage the degree of co-construction in the sequence, and Hang only provides the candidate understanding when Ami engages in longer eye contact to invite Hang to join the word search (line 8-9).

In line 11, Ami accepts the candidate understanding with "yeah" and repetition. Ami then nods with a high-pitched "ah" (line 11). Having this "ah" after the initial "yeah" suggests that it is not just a reflexive response but more likely is a change of state. Consequently, Ami is displaying her change of position in terms of the word she is searching for from K- to K+, and realizing that the word she was searching for is "experience." Hang then repeats "experience" with a high pitch, confirming her understanding of Ami's intentions and thus arrives at a mutual understanding.

In Excerpt 19, Ami is required to try multiple times to provide words associated with the concept she is trying to express. This is probably due to the explanation Ami provides. Nevertheless, Hang is still cooperative, supportive through providing a candidate understanding, and is able to reach a mutual understanding.

In other cases than the ones shown here, the Japanese participants provided hints of the color, shape, or hints related to the word, creating the word search into a type of guessing game. What is note worthy is that in all the cases, the interlocutor was cooperative and willing to join the "guessing game" of what the word in search may be. Cooperative in ways such as;

showing attentive listening through gaze and nodding, providing candidate words, negotiating what the word is, or at times showing understanding (without reaching a consensus on what the word it) and signal the speaker to progress with the content of the talk.

To summarize, the resolving word done by the speaker in word search sequences through providing semantic continuity ranges in degrees from a strong reliance on the partner's cooperation and knowledge to less reliance and more use of the speaker's linguistic knowledge.

4.3.4. Gestures

As seen from the previous excerpts, gaze along with hand gestures is used immensely among the participants during word search sequences. The hand gesture types, such as beats or iconic, were not categorized or analyzed in detail. Instead, this section analyzes the interactive features of hand gestures and the role it plays during the attempt to solve a self-initiated word search.

The first example displays the co-construction of mutual understanding through imitating the other's gesture. Excerpt 20 is from Ami and Hang's interaction recorded in May. Ami is explaining the about the steak she ate when traveling to New Zealand.

<Excerpt 20: Ami Hang May Thick>

```
1  →  Ami:    but erh [(.) because ern (.) steak?
                      [((Ami show thickness with fingers))
2  →          [(.) en (0.5) very: (0.5) [sick?
              [((Ami show varying thickness with fingers))
3     Hang:                              [ah:
4     Ami:    sick?=
5  →  Hang:   =tick (.)[tick
                       [((Hang show thickness till line 10))
6  →  Ami:              [sick
                       [((Ami show thickness till line 9))
7     Hang:   <a tsui>?=
               "thick"
8     Ami:    =ya (.) atsui(.)
                      thick
9     Hang:   atsui un[un
              "thick yeah yeah"
10    Ami:            [>un un un<
                       "yeah yeah yeah"
```

```
                    [((Ami nodding))
11   Hang:    ah: its hard to (.) [ak
                                  [((Hang eating hamburger))
```



Figure 5.26. Line 1 “steak”



Figure 5.27. Line 2 “very sick”



Figure 5.28. Line 5-9 thick

In line 1, Ami begins her gesturing with her fingers, as shown in Figure 5.26, while rephrasing her initial utterance “but” to “because.” She continues to hold the gesture while introducing the topic “steak.” However, while changing the width of her fingers, Ami uses pauses and elongated vowel sound to displays a possible trouble locating a word (line 2). She then says “thick” (although it sound as “sick”) with a rising intonation while the width of her fingers becomes the widest (Figure 5.27). Overlapping, Hang responds with an acknowledgment, “ah” (line 3), suggesting that Hang had anticipated the turn ending prior to Ami’s turn completion. Therefore, it could be interpreted that not only the example of the steak, but also the gesturing by Ami supported Hang’s understanding. This is similar to Hayashi’s (2003) finding in L1 Japanese interactions where the gesturing by the speaker during the initiation of a word search supported and prompted other-repair.

Although Hang displayed understanding, Ami repeats “thick” (pronounced as “sick”) again with a rising intonation (line 4), and requests for repair or confirmation response from

Hang. Hang then presents her version of the pronunciation, “tick,” twice with a falling intonation (line 5). The second time is accompanied by a similar gesture to Ami’s (Figure 5.28). As a result, Hang repairs Ami’s pronunciation, and shows that she understands Ami through her gesture.

When Ami’s repetition is different (line 6), Hang then goes on to use Japanese “*atsui*” (thick) with a slow pace and rising intonation while keeping the same gesture (line 7). It is unclear if Hang used Japanese here to secure mutual understanding, or if she is trying out her Japanese knowledge. Nevertheless, Ami confirms this through “ya,” repetition, and the similar gesture (line 8), visually demonstrating that they are referring to the same concept. Hang repeats “*astui*” again, as if she is practicing her Japanese, followed by “*un un*” (yeah yeah) and showing understanding or satisfaction (line 9). Ami then present another positive feedback in Japanese (line 10). After this exchange, the two finally go back to the main topic of the food. Therefore, Ami’s word search sequence in lines 1-6 switches to Hang’s Japanese practice activity between lines 7-10. This demonstrates the different orientations of the participants towards the interaction and fluid participation framework of the interlocutors in non-institutional ELF interactions.

Hand gestures, however, were not always used as a replacement for the lexical item. At times, it also functioned as a supportive device for the speech. The following example demonstrates the hand gesture used as a replacement for a lexical item and a supportive device for resolving the word search. Excerpt 21 is between Yoko and Shitora in May, and Yoko is introducing her father’s job.

<Excerpt 21: Yoko Shitora May Construction Site>

```
1     Yoko:      [he was mm::
2     Shitora:   [mm:
3                (1.3)
4     Yoko:      like mm:: (0.3) he worked at (1.0) da:
5                (3.8)
```

6	Yoko:	↓mm:
7		(1.5)
8	Yoko:	[mm:, (1.0)
		[((nod and smile))
9	Yoko:	$↑*kojigenba?*$
		"construction site"
10		(1.3)
11	Yoko:	°*kojigenba*° ↑mm::
		"construction site"
12		[(2.2)
		[((raise fist))
13	Yoko:	he was (0.6) mmh (1.4)↓mm::
14		[in ↑past he was (.) [building (.) ah-
		[((swing arm)) [((hammering to line 16))
15		(0.5)
16	Shitora:	↑uhh:
17	Yoko:	like mm::
18		(0.7)
19	Shitora:	↑ah:: >ok< [>I see I see<
20	Yoko:	[mhh
21		but he is now (0.6) mm:(0.7)
22		[only (.)> da ↑desk ↓work<
		[((writing))
23		(0.5)
24	Shitora:	ah:: (1.0) he's only writing something
25		[SIgning something
26	Yoko:	[yeah yeah yeah yeah



Figure 5.29. Line 12 (2.2)



Figure 5.30. Line 14 "in past"



Figure 5.31. Line 14 "building"



Figure 5.32. Line 22 "only the desk work"

Yoko hesitates and pauses multiple times (lines 4-8) displaying trouble, then with a smiley voice code-switches and says, "*kojigenba*" (construction site), with a rising intonation (line 10). This smiley voice could suggest that Yoko is aware that her language choice is

marked (Firth, 2009) and is different from the previous flow of talk. The prosody also suggests that Yoko recognizes the possibility that it may not be understood by Shitora.

When Shitora does not respond (line 10), Yoko then displays thinking and through repetition and "mm" (line 11), followed with a gesture of raising her fist as if holding a hammer while looking towards Shitora (line 12, Figure 5.29). Yoko does not articulate anything at this point, suggesting that she is inviting Shitora to other-repair and/or thinking of the expression while gesturing. After the pause Yoko restarts her talk by retracting her story "in the past" (line 14) while waving her arm to her left to describe the past (Figure 5.30). She then uses a semantic contiguity resolution move of describing her father's job as "building," while modeling a movement of hammering a nail into a wall (line 14, Figure 5.31).

Shitora does not repair or provide a candidate understanding. Instead, she shows a change of state ("uhh" "ah") (line 16, 19) and understanding ("ok I see") (line 19). Hearing this response from Shitora, Yoko understands that a mutual understanding has been reached, and continues her story telling about the current job situation of her father of doing desk work, again while gesturing a writing movement (line 22, Figure 5.32). Shitora then responds through displaying her understanding "only writing something, signing something," which is confirmed by Yoko (line 24-26).

In this excerpt, the use of gesture is not independent from other means of resolving the word search. Instead, it is used along with the other strategies of code-switching and semantic contiguity. What is more, gestures were used simultaneously with the words that it was describing relatively simple concepts such as "past," "building," and "desk work," suggesting that the gestures were not necessarily for supporting Shitora's understanding, but for supporting Yoko's own speech production.

Iverson and Goldin-Meadow (1998) found congenitally blind children gesture when

they spoke, even when speaking to other blind children, thus concluding that gesture use is strongly connected with speech production. Therefore, it could be said that gesturing while attempting to resolve a word search could be used for prompting other-repair or supporting the production of a self-repair.

Moreover, even though Yoko is searching for a word, the "novice" identity does not become relevant. Unlike other cases shown in this chapter, Shitora does not display her version of the word. Rather, Shitora only displays that she has understood Yoko and lets Yoko continue with the story telling. As a result, compared to the other excerpts in this section, K+ or K- position regarding the English language does not become apparent or relevant. In other words, there is a preference towards self-repair and progressivity of the talk.

To summarize, the hand gesture work plays an important role in the interaction. Gestures function as a placeholder or replacement of the next item in the utterance, as well as supporting other-repair and self-repair in achieving mutual understanding.

4.3.5. Using the dictionary

The final candidate solution method used that will be introduced is cases in which word searches were attempted to be resolved through the use of a dictionary or the Internet. Only a few studies thus far have analyzed the use of the dictionary in L2 interactions using CA (e.g., Barrow, 2009, 2010; Hauser, 2014). These studies have identified that practices of self-initiation of a word search occurs prior to the dictionary "look-up," such as cut-offs, sound stretches, and change of gaze (Barrow, 2009). It was also found that dictionaries were used not only during self-initiated self-repairs but also during self-initiated other-repairs and other-initiated other-repairs (Hauser, 2014). What is interesting is that a participant in Hauser's (2014) research referred to the use of the dictionary as "cheating," and the one using the dictionary returned it to his bag. Hauser shares his interpretation that during language

classroom tasks, the use of the dictionary may or may not be viewed as legitimate.

However, both Barrow (2009, 2010) and Hauser's (2014) studies were conducted in language classroom settings where the goal of learning, using words accurately, or being assessed on their language ability was a shared understanding among the participants. The current data was collected in a non-classroom setting, thus bringing a different dynamic and meaning to the use of the dictionary during the talk-in-interaction.

From the current collection of word search sequences, only four recordings were identified where the participants used the dictionary to resolve their word search, and two out of the four participants used this method. Three of the cases were by Maya. Despite our instinct that using the dictionary will be more prevalent during the early stages of the study when the Japanese participants are still at the early stages of joining the ELF environment and need extra linguistic support, the majority of dictionary use was found later in the data collection in December when Maya and Yanti discuss the courses they disliked in high school. Excerpt 22 is an example when the two are talking about classes they disliked in high school.

<Excerpt 22: Maya Yanti December Physics>

1		Maya:	°so° biology is (.) mh (0.3)
2			[interesting]
3		Yanti:	[better?]huhuhuh=
4		Maya:	=bedder (0.3) bedder than mathematics
5	→		o::r (0.6) *nani*? °↑ah: *nandakke*°
			"what" "what was it"
6	→		(2.5)((Maya looking up dictionary))
7		Yanti:	[physics, physics is
8		Maya:	[((Maya looking up dictionary))
9		Maya:	↑physics .sssss (0.9) HU::

In line 5, Maya attempts to compare biology with another subject, when she elongates the vowel sounds, uses "*nani*" (what) and "*nandakke*" (what was it) to display she is searching for a word (see Section 4.2.2). She does not seek for help from Yanti or use other strategies such as description, but uses the electronic dictionary right away in search for the word (line 6). When Yanti presents a candidate understanding of "physics" (line 7), Maya is

still looking down at her dictionary (line 8). When Maya completes her search in the dictionary she finally confirms Yanti's candidate word through repetition of "physics," looks up from her dictionary, and expresses her dislike of the subject through a long sigh (line 8).

Despite Yanti's candidate understanding (line 7), Maya shows reliance to the dictionary. The lack or orientation to Yanti's candidate solution could be due to Maya's lack of linguistic knowledge or non-hearing because she is focusing on the dictionary. However, by not orienting to and displaying reliance on Yanti's other-repair, Maya avoids clearly positioning Yanti as the one with more English knowledge. Instead, she delegates the linguistic authority or the K+ position to the dictionary. Maya could have also employed other possible means of solving the word search. Nevertheless, by using the dictionary which is readily available in the dormitory rooms (Figure 5.33), Maya was able to solve the word search quickly and accurately.



Figure 5.33. Example of Maya using a dictionary

One interesting case where a dictionary was used was when the interlocutor challenged a candidate solution by the Japanese participant, and the Japanese participant attempted to defend her language through the use of a dictionary. The excerpt below is from July between Maya and Kei when they are talking about what Maya learned in her environment class regarding a type of fish, a carp.

<Excerpt 23: Maya Kei July30th Carp>

```
1  → Maya:    the (.) >↑ca:p ca:p< (.)°n?° (.) ca:pu?
2             (0.7)
3    Maya:    fish (.) [d.
```

```
                    [((Maya fish gesture))
4    Kei:    <co:d.>
5    Maya:   ka- kard?
6    Kei:    cod.
7            (0.6)
8    Maya:   ah::.
9            (1.2)
10   Kei:    [see oh dee? ((C-O-D))
11   Maya:   [cod
12           (1.6)
13   Maya:   ma:ybe::.
14   Kei:    i- >itsa< ↑white fish right?
15   Maya:   ↑white and (.) red.
16           (0.6)
17   Kei:    >no no.< I mean the meat is (.) white.
18   Maya:   white?
19           (1.0)
20   Kei:    meat.
21   Maya:   meat. [mi- >meat<?
22   Kei:           [the- the-
23           the <fish's ↑meat is white>.
24           (1.2)
25   Kei:    <cod>.=
26   Maya:   =>I I< haven't eat (0.6) the (0.4)
27           co- co:p?
28           (1.2)
29   Maya:   ↑Japanese sound (.) is.
30           (1.0)
31   Maya:   EH? (0.6) co- >AH< (.) ↑CAh: (.) pu.
32           (1.0)
33   Maya:   ° ca:p. ° (.) fish. (0.8) in Japan
34           re- red (.) ca:p. (0.6) or black $ca:p.$
35           (1.4)
36   Kei:    red and black?
37           (0.4)
38   Maya:   [$plea:se hhh my(h) di(h)ctionary::$ .hhh
             [((Maya reaches out her arms))
39           (2.4) ((Kei passing dictionary to Maya))
40   Maya:   ca:p.(.) >do you: know Hiroshima ca:p<? (.)
41           ° in ° (.) Japanese (.) baseball (.) cheam,
42           (1.2) ((Kei shakes head))
43   Maya:   ° eh: °
44           (9.2) ((Maya searching dictionary))
45   Dict:   ° carp °
46           (1.8) ((Maya show her dictionary to Kei))
47   Kei:    °carp (    ) [(      )
48   Maya:                  [↑ca:p
49           (0.8) ((Kei takes dict.,looks till line 61))
50   Maya:   fish
51           (1.2) ((Maya fish gesture))
52   Maya:   Hiroshima (.) ca:p.
53   Kei:    $hh$
54           (1.8) ((Kei looking at dictionary))
55 → Kei:    °n::↑: :°.
56           (2.2)
57 → Maya:   the ↑ca:p change the:
58           (0.4)
```

59 Kei: ↑AH:::↓:: (0.4) it-
60 Maya: [m-
61 Kei: [they yeah. >[they] they<
62 Maya: male=
63 Kei: =>yeah yeah yeah yeah yeah<
64 [>yeah yeah yeah yeah yeah<]
65 Maya: [t o f e m a l e?]
66 Kei: >yeah yeah<
67 Maya: ° *un*. °
"yeah"
68 Kei: its- (.) its because of those chemical.
69 Maya: ° *un* .°
"yeah"

*Dict: Dictionary



Figure 5.34. Line 3 "fish"



Figure 5.35. Line 38 "please my dictionary"



Figure 5.36. Line 46 Showing dictionary



Figure 5.37. Kei looking at dictionary

In line 1, Maya introduces the topic "carp" however with cut offs, pauses and hesitation, and a rising intonation displaying a possible search and uncertainty of her word choice. Maya provides a semantic contiguity "fish" and a gesture to attempt to gain mutual understanding (line 3, Figure 5.34). Kei, as his frequent practice, then repairs Maya with "cod" (line 4). When Maya does not repeat it in the same manner (line 5), Kei presents his version of the pronunciation again (line 6). However, Maya does not respond to this second

repair immediately (line 7-9). Kei then presents the spelling “C-O-D” with a rising intonation to prompt response (line 10), though Maya does not provide an immediate or a definite response to this question (line 11-13). Kei then attempts to resolve the non-understanding through describing the meat color (line 14, 17, 20), but again fails due to Maya describing the color of the outside of the fish (line 15), and then explaining that she has never eaten the fish (line 26-27). Maya then introduces her “Japanese sound” of the word “carp” (line 31-33) and then describes the color (line 34).

When these negotiation turns do not work towards resolving the word search, Maya then requests her dictionary (line 38, Figure 5.35). While she is looking up the word, she demonstrates her accuracy of the word choice through asking Kei if he knows the Japanese baseball team called “Hiroshima carp” (line 40-41). When there is no response, Maya plays the audio of the dictionary (line 45) and shows it to Kei to support her claim (line 46, Figure 5.36). This pronunciation is then repeated by Kei (line 47) and Maya (line 48). Not only until Kei looks at the dictionary closely (Figure 5.37) does he display acceptance or understanding through a soft but a rising utterance of “n” (line 55). Maya noticing that Kei has accepted her self-repair and has reached a mutual understanding, continues with her story telling.

Maya and Kei used candidate pronunciations, spelling, gestures, and semantic contiguity in the attempt to reach an accurate intersubjectivity of the word at search. In this case, the dictionary was the last method that Maya could resort to in supporting her word choice and to convince Kei of her accuracy. At first glance, the two interlocutors at first seem cooperative in reaching a mutual understanding. However, when analyzing the interaction closely, we can see a different dynamic of the negotiation context. That is, Maya is convincing Kei of the accuracy of her word choice.

Even with Maya’s questioning of the candidate word “cod” and evidence of the

baseball team name to support her claim of "carp" Kei does not accept this. On the contrary, he attempts to confirm his accuracy through confirming the fish's meat color, and does not present any sign of change of state until he sees the dictionary. This non-acceptance could be due to Maya's display of lack of confidence through the hedging, the non-English like *katakana* pronunciation, or other social factors such as their past conversations together. Nevertheless, until Maya demonstrates and supports the accuracy of her candidate solution of her word search accompanied with a dictionary, Kei does not show alignment.

Researchers have argued that ELF interactions are "cooperative" and "supportive" (Firth, 1996; Kaur, 2011; Seidlhofer, 2001). Seidlhofer (2001) states, "ELF interactions often are consensus-oriented, cooperative and mutually supportive" (p. 143) where participants in the talk use various affordances to facilitate the progress of communication. Others have found in academic learning situations where L2 users would support each other through repair sequences to reach mutual understandings (Kaur, 2011) or in business interactions where the interlocutor would ignore any linguistic mistakes in order to make "the other's 'abnormal' talk appear 'normal'" (Firth, 1996, p. 245).

However, in the case of Maya and Kei, there is a negotiation of the K+ position in terms of the English word. At the end, the dictionary became the tool for Maya to legitimize her word choice. Therefore, it can be said that the dictionary holds an authoritative role in the interaction in terms of word choice. Phillipson (2008) claims, "Labelling English as a lingua franca, if this is understood as a culturally neutral medium that puts everyone on an equal footing, is simply false" (p. 5). This segment demonstrates that even in ELF interactions, there is a delicate negotiation of epistemic stance of the English language or the word at search, and not all speakers are positioned equally at all times.

This section displayed the methods adopted by the Japanese participants as a candidate

solution to their self-initiated word searches. The analysis introduced five common methods used by the participants: candidate words, code-switching, semantic contiguity, gestures, and the using the dictionary. These methods were often used together or alongside each other. Furthermore, detailed analysis of the participants' orientations to each other displayed a delicate negotiation of epistemic stance regarding the knowledge and authority of the English language or the particular word. Therefore, depending on the orientation of the interlocutor, the methods used in attempting to solve the word search altered.

The final section of this chapter will focus on responses by the interlocutor, in particular the responses to prosody-marked candidate solutions used by the Japanese participants.

4.4. Responses to Prosody-Marked Candidate Solutions

When looking back at the excerpts provided above, we notice that the initial verbal resolving moves made by the Japanese speaker are often accompanied by a rising intonation. Of the 239 word search sequences which used a candidate solution, 136 (56.9%) were accompanied by a rising intonation. This tendency suggests that using a rising intonation is a common feature used in attempting to self-resolve a word search. I will call this prosody-marked candidate solutions.

This tendency of using prosody-marked candidate solutions is consistent with Koshik and Seo's (2012) results in their study of word searches. However, the authors only found limited responses from the interlocutor to the prosody-marked candidate solution: either "confirm" or "correct." However, I argue that, from observing the ELF interaction collection this binary response is not the case.

Below, I will document the responses by the interlocutor after prosody-marked candidate solutions of word searches done by the Japanese participant. The interlocutors not

only (a) confirmed and (b) corrected, but also (c) presented candidate understandings, and (d) requested further information. These responses to the candidate solutions and what it entails as a social action will be explained in detail below.

4.4.1. Confirmation

Confirmation was a common practice as a response to candidate solutions, similar to what Koshik and Seo (2012) have noted. The first example, Excerpt 24 is from Ami and Hang in May, when the two are talking about what happened that day in classes.

<Excerpt 24: Ami Hang May Concentrate>

```
1   Ami:    yahhh I can't concen(.)
2           concentrate? concen[trate
3   Hang:                      [↑unuh
4           [↑concen↓trate
5   Ami:    [ya::
6           (0.4)
7   Ami:    °I'm very [hungry:°]
8   Hang:             [↑ah::   ]so all day
```

In line 1, Ami cuts off "concen" then redoes "concentrate" with a rising intonation, thus initiating a word search and presenting a candidate word. Ami repeats "concentrate" again while Hang confirms this through backchanneling and a repetition (line 3-4). Once Ami receives the confirmation, she returns to the main topic of the conversation.

Similar cases were found with other participants. Excerpt 25 is a recording from Maya and Yanti in November discussing the courses choices they made.

<Excerpt 25: Maya Yanti November Regret>

```
1   Maya:     so:::: mh:::
2             (1.0)
3   Maya:     °kokai° (.) kokai [°tte nani°
              "regret"       "regret     what is it"
4   Yanti:                        [kokanihehehe
5             (1.0)
6   Maya:     I regret (.) I regret?
7   Yanti:    ↓mm↑huh mhh
8   Maya:     regret to take da
9             ↓mh $↑English ↑base$
```

In line 1-2 Maya displays she is searching for a word through elongated sounds and a long pause. She then code-switches and says, "*kokai"* (regret) followed by "*tte nani*" (what is

it) with no mutual gaze, suggesting an ongoing solitary search. Yanti does not join the word search, but repeats a similar sound that Maya has just said (line 4). It is unclear at this moment if Yanti understands "*kokai*." Maya then presents a candidate word "I regret" twice, the second time with a rising intonation and mutual gaze. Yanti responds minimally with "mh huh" and "mhh" accompanied with nodding, suggesting that she had understood Maya (line 7). Once Maya had received this confirmation of her word choice and notices there is mutual understanding, Maya returns to the main topic. She does so by repeating the trouble source "regret" (line 9) as if practicing the word.

Taking another look at Excerpts 24 and 25, we can see that the Japanese participants would put the main topic of conversation on hold until they had received confirmation of the accuracy of their word choice. As a result, it could be said that they were orienting to the interaction as a learning opportunity (Brouwer, 2003).

Below is a clear case of this orientation to the word search sequence as a learning opportunity. Excerpt 26 is from Maya and Kei in July. Maya is sharing what she learned in class that day about the government supporting athletes.

<Excerpt 26: Maya Kei July30th Represent>

```
1   Maya:   represent- (0.4) n, present?=
2   Kei:    =>yeah yeah yeah.<=
3   Maya:   =>°↑present repre↓sent,°<
4   Kei:    represent.
5   Maya    like (1.8) in Korea:(0.4) Kim Yona,
```

In line 1, Maya cuts off the end of "represent," then pauses and says "n" with a slight rising intonation, displaying uncertainty of the word choice and initiation of a word search. She then presents an alternative candidate word, "present," with a rising intonation, possibly requesting for a confirmation. Kei confirms this with no hesitation (line 2).

Although Kei is displaying understanding, Maya pursues accuracy of the word choice by presenting the two choices of "present" and "represent" with a slight rising intonation, and

requests for a confirmation (line 3). Kei then confirms, “represent” (line 4). Only then when Maya received the answer she requested, continues with her story telling (line 5).

Excerpt 27 is a similar example between Ami and Soo in December. However, in this case, Soo avoids being positioned as the English language expert and orienting to the interaction as an explicit learning and teaching opportunity. The two are talking about applying for an extension to stay in the dormitory the following year.

<Excerpt 27: Ami Soo December Extension>

```
1     Ami:     if you can’ pass de (0.5) er (0.6)
2   →          ah: (.) extension?
3              (0.9)
4     Soo:     [°mmh °
5   → Ami:     [extension?
6     Soo:     Yeah
7   → Ami:     >how °can I say°< (.) extension:
8              (0.4) erh da (0.3) to stay in ei pee <house>
9              (0.3) are you going to: find apartment?
10             (0.4) soon?
11    Soo:     (0.5) hmm but I tink NOT (0.4).sss I’m not
12             gonna live (0.5) °alone° (.)↑in apartment=
13    Ami:     =oh:
```

In line 1, Ami starts asking a question to Soo about her thoughts on moving out of the dormitory if her application gets denied. Ami displays trouble locating the word, and presents a candidate word “extension” with a rising intonation (line 2). Since it is mid-sentence, Soo does not respond at first (line 3), but then shows she is listening or the confirms that the word is correct through “mm” (line 4). This overlaps with Ami’s repeating of a re-try of “extension” (line 5) with a rising intonation, pursuing a request for confirmation. Soo then responds with “yeah” (line 6), which could be understood as a confirmation of the word choice or display of understanding of the content. Ami however continues to displays uncertainty by saying, “how can I say” followed by “extension” (line 7), indicating that her issue is with the word “extension.” However, when Soo still does not respond, Ami then uses a semantic continuity and rephrases “extension” as “to stay in AP house” (the dormitory name) and continues with her question “are you going to find apartment soon?” (line 8-10). Only when Ami completes

her question, does Soo responds with an answer (line 11-12).

From Excerpts 26 and 27, we can observe the different orientations and interactional goals the participants are displaying through the conversation. The Japanese participants (Maya, Ami) are working towards locating the English word or a clear confirmation of accuracy of their word choice. Therefore, it can be said that the Japanese participants are orienting to the interaction as a language learning opportunity.

In contrast, the partners' display an orientation towards progressing the conversation, and focusing on the content of the talk rather than the accuracy of the word choice. This is similar to Excerpt 10 (Section 4.3.1) regarding Maya and Yanti's exchange with "water clothes."

As Koshik and Seo (2012) note, it is not always clear if the prosody-marked candidate solutions are proffering a confirmation or a particular word. Similar situations were found from the current data. Therefore, when the Japanese participants were pursuing for accuracy, they would attempt to elicit the word through using additional turns. This is similar to Hosoda's (2006) study between L1-L2 Japanese speakers where the L2 speaker continued to pursue linguistic accuracy even when the L1 speaker did not correct their word choice. She therefore concludes that the L2 speakers were "doing being a language learner." L2-L2 interactions, such as this study, also demonstrated such phenomena where Japanese participants would display orientations to the sequence as a learning opportunity and position their partners as the one with relatively more English language knowledge.

However, it is interesting to note that while the Japanese participants sometimes positioned their interlocutors as English experts, those interlocutors sometimes did not accept the expert role and join the word search. In other words, the interlocutors either did not recognize that they were being positioned as the expert, or they chose to avoid helping. Since

they did not accept the role of the expert, this may mean that they did not view the pursuit of the accurate word as important. Whereas L1 interlocutors may take it as a teaching opportunity or view their role as a "helper" to find the precise word which would be a distinguishing trait of L1-L2 interaction. This observation demonstrates that there can at times be uncertainty or imbalance relating to expert-novice positioning in ELF interactions: participants can opt to align with or resist this positioning, or they may be unaware that they are being assigned certain roles. This finding is distinct from those of previous studies in which L1 English users typically acknowledge and take on the role of linguistic expert (Hosoda, 2006; Kurhila, 2006).

4.4.2. Correction

Another common response was corrections. Corrections responses to the prosody-marked candidate solutions were also done often with minimal turns. In the current collection, there were corrections with word choice, form, and pronunciation. The example shown below is Maya and Kei's from April where Maya's candidate word is corrected. Maya is talking about the transportation system in her hometown.

<Excerpt 28: Maya Kei April 1 Subway>

```
1      Kei:     so what's the transportation in Fukuoka.
2               (.) bus?
3      Maya:    (0.8) bus a:nd (0.2) train,(.) a:nd
4               (1.2)
5  →   Maya:    <underground> (.) °train°,=
6      Kei:     =↑subway=
7      Maya:    =↑subway,=
8      Kei:     =↑uuhhh
```

After a long pause in line 4 where Maya conducts a solitary word search, Maya presents a candidate word "underground train" with a slight rising intonation (line 5). Kei, with no hesitation, in the next turn says, "subway." "Underground train" and "subway" are synonymous, and Kei's turn is not a correction in all cases. However, Maya then repeats this with a similar pronunciation, and treats Kei's turn as a correction. Kei then accepts this

repetition and the two move on with the topic.

Prosody-marking may be a signal to invite other-repair. However, Kei's correction is exposed (Jefferson, 1987) and overt. The sequence therefore becomes similar to an IRF sequence (Sinclair & Coulthard, 1975) or pedagogic interactions (McHoul, 1990) discussed previously in Section 4.3.2. As a result, Kei can be seen as displaying his teacher-like identity towards Maya.

Similar cases were found between Ami and Hang, and an example from May is shown in Excerpt 29. Ami is explaining about a magazine she made as a class project and the article she wrote about Hang. In this case, Hang corrects Ami's word form.

<Excerpt 29: Ami Hang May Representation>

```
1      Hang      [ahhh
2      Ami:      [yu- (.) you are betnamese=
3      Hang:     =↑un
4   →  Ami:      represent(0.4)°tation°?=
5      Hang:     =un=
6      Ami:      =ya?=
7   →  Hang:     =representeitive
8   →  Ami:      represen↑tei↓tive=
9      Hang:     =↑un
10     Ami:      ↑un un un un
11               (0.5)
12     Hang:     ha::::
```

In line 4, Ami pauses mid-word and starts a word search. She then attempts to resolve it through a soft voice and a prosody-marked "representation." Hang then shows understanding through "un" (line 5), although ambiguous, could be understood as "yeah" in Japanese. However, Ami does not return to the main topic, but quickly pursues confirmation through "ya" with a rising intonation (line 5). Hang then with no hesitation repairs Ami's previous turn as "representative" (line 7) with emphasis on the corrected part of the word. Ami then repeats this with a similar pronunciation, similar to what Maya did in the previous example (Excerpt 28), displaying her orientation to the sequence as a learning opportunity, and the partner aligning to it with no hesitance.

Although Kei and Hang are both correcting the Japanese participants' prior utterances, there is a difference in their participation framework. That is, Kei is displaying an overt display of his K+ position and a pedagogic orientation by providing an outright correction while Hang did not correct Ami until solicited for the second time.

The final example of correction is an example of a pronunciation correction. Excerpt 30 is between Maya and Kei in April. Maya is talking about the murder that occurred in her neighborhood when Kei attempts to correct her pronunciation of "murder." In the excerpt, the pronunciation of the word "murder" is written using the International Phonetic Alphabet.

<Excerpt 30: Maya Kei April Murder>

1	Maya:	uh::: (0.4)°eh° (0.3) de:re (0.3)
2		are (0.8) ↓mh (0.3) /mʌdər/,=
3	Kei:	=/mɚ:dər/=
4	Maya:	=/mʌdər/=
5	Kei:	=homicide
6		(0.6)
7	Maya:	how?
8	Kei:	(0.3) homicide. (.)>it's a<
9		>it's a< (.)/mɚ:dər/.
10	Maya:	(0.3) /mʌdər/ (.) a::hh

In line 2, Maya initiates a word search with pauses and a display of thinking with a "mh." She then presents a candidate word, "murder," with a slight rising intonation. However, she pronounces the word with a different vowel sound, making it sound as a non-standard English word. Kei immediately repairs Maya with his version of the pronunciation (line 3), which can be seen as an "exposed correction" (Jefferson, 1987). It is unclear at this point whether Maya is attempting to repair her version of the pronunciation or defend it. However, when Kei presents a synonym of "homicide" (line 5), Maya displays non-understanding through the pause and not being able to repeat the word (i.e., "how") (line 6-7). Kei then repeats "homicide" and "murder" again to explain that they are synonymous (line 8). Maya then repeats "murder" again with the same pronunciation as in line 2 (line 10). However, this time Kei does not repair her anymore, suggesting that there is a mutual understanding of the

word and that Maya is possibly attempting to repair her pronunciation. This is similar to Brouwer's (2004) "doing pronunciation" where the L1 speaker repairs the pronunciation of the L2 speaker, and when the repetition is not accurate they move on to a longer repair sequence. As a result, Kei can be viewed as taking on the "expert" role in this sequence.

This subsection introduced ways in which corrections were done as a response to candidate solutions. In all cases, the Japanese participant would present a candidate solution for the word search with a rising intonation, then the partner would present an alternative word, form, or pronunciation with no rising intonation. The compact nature of the sequences and the lack of prosody at the end of the repair turn of these correction sequences suggest that the interlocutor has reached a mutual understanding prior to the correction turn.

However, differences found among the sequences depending on how and when the correction turn was done. When the corrections were explicit, the Japanese participants would repeat the repair and display their orientation as a possible learning opportunity. Moreover, the correction turns were explicitly prompted in some cases, while with some partners corrections were outright, suggesting differences in the partners' orientation to the interactional goal and self-positioning of their English language expertise.

Schegloff (1977) observed that in talks between equals, other-correction is often mitigated through the use of "I think." However, the examples did not display any mitigation in the correction turn by the partners. From these observations, it could be concluded that even in L2-L2 interactions there is an unequal epistemic positioning of participants' linguistic knowledge and identities.

4.4.3. Candidate understanding

A response that was not documented by Koshik and Seo (2012) was a case where a candidate understanding was presented by the interlocutor with a rising intonation. Excerpt

31, from Ami and Hang in October, exemplifies this. The two are talking about their summer vacation experiences.

<Excerpt 31: Ami Hang October Experience>

```
1      Ami:    so (.)ah:: what what things ah:::
2              how to say that .hhh (0.3)
3   →          what [thing?
                    [((gaze Hang))
4              mmm (0.5)ah::: do you like the ↓best
5              (.) I mean da (.)whats mm:::
6   →          (.) whats [happen? or=
                         [((gaze Hang))
7      Hang:   =mmm
8              (0.5) ((Ami put hands together))]
9      Ami:    .su:::=
10  →  Hang:   =experience?=
11     Ami:    =du (.)↑yeah experience ↑ah:::=
12     Hang:   =ex↑perience
13     Ami:    >yeah yeah yeah<
```

Ami attempts to resolve the self-initiated word search through describing the concept as “thing” (line 3) or “happen” (line 7) with a rising intonation. Hang only replies through a “mmm” (line 7). However, when Ami halts her candidate solution work (line 9), Hang then presents a candidate understanding of “experience” with a rising intonation (line 10). Ami then confirms this in the following turn through a positive feedback “yeah” and repetition (line 11). Hang then repeats “experience” again, demonstrating that mutual understanding has been reached (line 12).

In this sequence, Hang presents her understanding with uncertainty and waits for Ami’s positive reinforcement. Once Hang displays that a mutual understanding has been reached, she then moves on with the topic. Hence, comparing this excerpt with the previous examples of confirmation or correction responses, it could be said that at the point when the candidate understanding is presented by the hearer, intersubjectivity has not been reached, and confirmation or negotiation work is needed before the talk can be progressed.

In other cases, the candidate understanding was done through a repair and tag question. Excerpt 32 is from Tomoko and Pham in May. Tomoko is talking about the classes

she is taking.

<Excerpt 32: Tomoko Pham May Introduction>

```
1      Tomoko:   an ai ha:ve (2.2) AH:ah
2                (1.0) ((clap))
3   →  Tomoko:   the intransi(.)i'o:f (.)eei pee(.)°yuu°?=
4   →  Pham:     =$ohohoho an introduction$
5                [$of eei pee yoo: ((APU)) (.)right?$
6   →  Tomoko:   [>$introduction.(.) sorry$<
7                >$introduction$<
8      Pham:     .hhh [$oh ai see$
9      Tomoko:          [>$ya: introduction of$<
10               (.) DAT was (.) prii: (.) good
```

In line 1-3, Tomoko pauses and hedges, showing indication of uncertainty and a possible word search of the name of the course. Tomoko then completes the turn with a rising intonation (line 3). Pham then shows understanding through "oh oh oh" and "introduction of APU" followed with a tag-question "right" with a rising intonation (line 4-5). By adding the tag-question, Pham forms the "correction" turn into a candidate understanding.

Heritage (2002) found that in assessments, "oh"-prefaced turns display a stronger claim to the knowledge and stronger rights to assess. Whereas Heritage and Raymond (2005) found that [declarative + tag question] in assessment turns, downgrades the assessment and displays a weaker claim to the knowledge of the object being assessed. Utilizing these findings, this turn can be analyzed as, the "oh" indexing Pham's independent access and knowledge of the course name. Pham then provides evidence for this claim through providing the word. Pham then uses the tag question to return the rights to the knowledge back to Tomoko as the original speaker, and requests for confirmation. In addition, Pham does this turn with a smiley voice, making the possible "correction" turn less face threatening.

Right after hearing the repair of "introduction" Tomoko self-repairs with a fast paced smiley voice, followed by a "sorry" and repetition (line 6-7). In the previous correction examples, such as Excerpts 24, 26, 28, and 29, the Japanese participant would repeat the interlocutor as if it were a language practice. However, in this sequence, through the use of a

smiley voice, fast pace, and "sorry," Tomoko deflects the possible positioning as an English language novice, and displays herself as a competent speaker who "knew" the word, but just made a simple mistake.

As it can be seen from Pham, the response turns to prosody-marked candidate solutions could be carefully structured as to not position the interlocutor as the English language novice while displaying the interlocutor's own knowledge and achieving intersubjectivity.

4.4.4. Requesting repair through partial or full repetition

Displays of non-understanding or requesting for repair after a candidate solution were also found in the current collection. Displays such as these were not documented by Koshik and Seo (2012). Similar to the candidate understanding responses, these displays of non-understanding and request for repair were done by way of partial or full repetition which insured that the speaker did not lose face. An example of this is shown in Excerpt 33 which was recorded between Ami and Hang in April. Ami is explaining a traditional Japanese sport, sumo, and that many of the recent sumo players come from Mongolia.

<Excerpt 33: Ami Hang April Mongolia>

```
1      Ami:     $°sumo° people$ ah::: (.) come to::
2               (.) °come to:° (.) °°from°°
3               (1.1)
4   →  Ami:     mo- ↑momgol? mongol=
5      Hang:    =↑mon (0.4) mongol?=
6      Ami:     =↑yeah
7   →  Hang:    mongolia?=
8      Ami:     =mongolian
9      Hang:    [↑hahhh
10     Ami:     [ahhhh got a lot of (.)mongolian?
11     Hang:    ahhhh
12     Ami:     in Japan,
```

After restarts, a long pause, and a cut off to suggest a trouble source to follow (line 2-4), Ami presents a candidate solution for her word search "mongol" with a rising intonation, followed by a restatement (line 4). Hang then responds to this through a partial repetition,

then a full repetition with a rising intonation (line 5), requesting a next turn repair. However, Ami takes Hang's response as a display of a hearing trouble or a surprise and confirms Hang's hearing with "yeah" (line 6). When Hang present a more explicit repair initiation of "mongolia" with a rising intonation (line 7), Ami repairs with an adjustment of "mongolian" (line 8). After the repair by Ami, Hang finally displays understanding through a high-pitched "hahh" (line 9). Moreover, Ami repairs again through a restatement of her initial idea (line 10), possibly orienting to the repair as an English learning and practicing opportunity.

Therefore, in some cases, the function of the initial repetition of the candidate solution by the interlocutor was ambiguous. The reason for the prosody could be a confirmation check of hearing, displaying surprise, or requesting for repair. Not until the following turns when further negotiations occur does the reason for the prosody becomes clear. However, because of this lack of explicitness, the repair initiation is not face threatening to the speaker in challenging their English language knowledge.

This section described the responses after candidate solution turns with prosody. The analysis demonstrated that the responses were not limited to confirmation and correction, but also includes candidate understandings, and requests for repair. As seen from the excerpts, the sequences were relatively compact, suggesting that candidate solutions play an important role in facilitating the process of reaching a mutual understanding. However, it was also confirmed that prosody-marked candidate solutions are ambiguous regarding whether they are eliciting a confirmation or a specific word (Koshik & Seo, 2012). There were no clear patterns found as to how the responses differed depending on the prior turn, rather responses seemed to be related to the partner's orientation to the sequences as a teaching-learning opportunity or not. Regardless of the response type, it affected the rest of the interaction of the enfoldment within the sequence.

In addition, word search sequences with prosody-marked candidate solutions displayed the Japanese participants' relatively strong orientation to the sequence as a language learning opportunity and "doing being a language learner." At the same time, the Japanese participants were found to position their partners as one with relatively more English language knowledge. However, the partners demonstrated their option to accept or refuse this positioning of the English language expert and language teacher. Thus, in doing so, they are displaying not only a unique interactional context but also a novel dynamic of ELF talk, specifically one where the roles of novice and expert are interchangeable, based on the participants view and acceptance of those roles.

4.5. Summary

This chapter set off to explore the common features found in ELF word search sequences utilized in interactions outside the classroom setting. The analysis particularly focused on word search sequences initiated by the Japanese participants which were then were attempted to be self-resolved or self-repaired. The analysis described the common features found among the four participants in terms of word search initiation patterns, the candidate solutions, as well as the partners' responses to prosody-marked candidate solutions done by the Japanese participants.

From the detailed analysis of the interactions, two observations can be made through the analysis of word search sequences in ELF interaction: (a) preference organization and (b) learning opportunity. As previous researchers have claimed, there is a preference for self-repair of self-initiated word searches (Schegloff et al., 1977), and this preference was found true even in ELF interactions. Frequently, the Japanese participants would attempt to resolve the word search through various means, such as candidate words or sounds, code-switching, descriptions or synonyms, gestures, and the use of the dictionary. At times, several different

strategies were found used in the same sequence until the word search was resolved. This was a consistent trend across all four participants.

Moreover, when verbal candidate solutions were used, they were often accompanied with prosody, requesting or leaving space for the interlocutor to respond. These prosody-marked candidate solutions by the Japanese participants were responded to by the partner through confirmation, correction, candidate understanding, and request for repair. This was different from previous findings between L1-L2 word search sequences where findings were limited to confirmation or corrections.

In addition, some Japanese participants showed stronger orientation towards the interaction as a learning opportunity. Even after the partner had indicated that they had reached a mutual understanding, the Japanese participant was found requesting the word at search. The Japanese participants were also frequently found repeating the repaired or sought out word after the partner's correction or display of candidate understanding. Therefore, some orient to the interactions as a learning opportunity more than others, thus displaying different orientations and interactional goals depending on the self and the other.

Through a mutual orientation to the word search sequence as a learning opportunity, the participants' epistemic stance in terms of the English language knowledge became apparent, often with the Japanese participant as the novice and the partner as the expert. Thus demonstrating that even in ELF interactions, participants are not always positioned equally in the interaction. Participants were found carefully monitoring their positions, as well as their word choices through the talk in order to save the face of the interlocutor.

There were also cases where the partner would opt out of this other-positioning as the English language expert through ignoring the elicitation for other-repair, thus displaying preference towards progressing the talk. This suggests that unlike some L1-L2 interactions

(e.g., Funayama, 2002), K+ and K- positions in terms of the English language in ELF interactions is fluid and negotiable.

Chapter 5 will then move on to examine the changes in the word search sequences of the four participants individually. The changes will be examined through the use of quantification and microanalysis of the interactions using CA. Furthermore, the analysis will examine the word search patterns over time through the interaction with their fixed partners while reflecting on the features of ELF word search sequences found in Chapter 4.

Chapter 5. Adaptation in and through Word Search Sequences

5.1. Introduction

Chapter 4 illustrated the ways in which Japanese participants in ELF interactions initiate word searches, attempt to recover the self-initiated word searches, and the ways in which prosody initiated recovery attempts are responded to by their partners. It addressed the first research question of "How do L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations which the L2 speaker shows trouble locating a word?" and the second research question of "How does the interlocutor respond to a word search recovery work by an L2 speaker?" The analysis was based on the collection of word search activities created for this study, and does not capture the individual changes and the adaptations of the participants.

As such, Chapter 5 investigates if the word search sequences initiated by the Japanese participants changed over time, and addresses the third research question, "How do interactional patterns of word search sequences change over time?" and the fourth research question, "Is development of the use of word search sequences linear or does it display the characteristics of a CAS?" It examines if there is a pattern in the use of word search sequences over time and among the four participants. It also examines whether the results from the longitudinal CA analysis demonstrate CAS features or not.

The chapter is divided into largely two parts. The first part of the chapter is divided into five subsections. First, I will analyze the overall pattern found among the four participants. This includes the participants' overall English language proficiency and the quantified frequency of word search sequences. I will then give a detailed analysis of the word search sequence patterns of the four main participants and their fixed partners as shown below:

(a) Ami-Hang

(b) Maya-Kei, Maya-Yanti

(c) Yoko-Shitora

(d) Tomoko-Anh, Tomoko-Pham

By analyzing the data by time and by participants, this chapter aims to examine and display the individual differences as well as the common features of change and adaptation of L2 speakers to the ELF interactional environment.

The second part of the chapter then aims to interpret the findings from a relatively global perspective in order to situate the change of word search sequences in the ELF environment of a university dormitory. It aims to connect the micro changes of interaction and language development of the participants from the perspective of CAS, and to widen our understanding of development of discursive pragmatics and the nature of interaction in ELF environments.

The analysis will be done by applying the CAS framework to the results from the first part of the chapter. Through the reanalysis of the data, I will unfold what the data may entail in terms of development of word search sequences in ELF interaction. Through revisiting the data and reanalyzing it from a CAS perspective, I argue the following three points:

1. There are features of word searches in ELF interactions identified in this particular population that has not been reported in the wider population
2. The identified features were not taught but emerged from interaction through adaptation to the interlocutor
3. Development of interactional competence is non-linear (i.e., CAS).

5.2. Changes in Overall English Language Proficiency

This section will analyze the four participants' overall English language proficiency as

measured by the TOEFL (Test of English as a Foreign Language) test. The participants took the TOEFL-ITP (Institutional Testing Program) administered by the university throughout their first year. The first test was taken in April 2010, during their orientation week. Subsequent tests were taken in July, October, and then in January 2011. Tomoko did not take the test in July for personal reasons.

The TOEFL-ITP has the same grading scale as the TOEFL-PBT (Paper Based Test), with the score range of 310 to 677, and scored using standardized scores. In other words, the scores the participants received are not raw scores, but are scores that rank the students in comparison to other test takers. The test sections include listening, vocabulary, and structure (grammar). There was no speaking component. Nonetheless, the total scores of the TOEFL-ITP or PBT are found to be a reliable source that reflects the overall English language proficiency (J. D. Brown, 1999).

As displayed in Figure 6.1, the average score of the four participants improved from 438.25 in April 2010 to 481 in January 2011. This is a 42.75-point increase as a group. However, when examining individual scores over time, variations in the change can be observed as displayed in Figure 6.2.

Ami and Maya had similar scores at the beginning of the recording session in April with 407 and 413, respectively. As a result, the two were placed into the same English language course level ("Fundamental English," the second out of three levels) at the university. In January, however, a large difference was found between the two: Ami with 500 points while Maya with 447 points, a 53-point difference.

Yoko received 483 and Tomoko 450 in April and were both placed into the same "Intermediate English" course level at the university, one level above the "Fundamental English" course. Yoko's scores fluctuated, with a highest of 527 in July, 44 points higher than

the first test. Then in January, she received a score of 510. In contrast, Tomoko's scores plateaued, and showed almost no change. Tomoko's highest score was 467, only 17 points higher than April.

Therefore, it can be said there is an overall improvement in the English language proficiency among the four participants as measured by the TOEFL test. However, there is a variation in the changes at the individual level. Furthermore, as it may be expected, the change in the overall proficiency level and their use of word search sequences did not necessarily correlate.

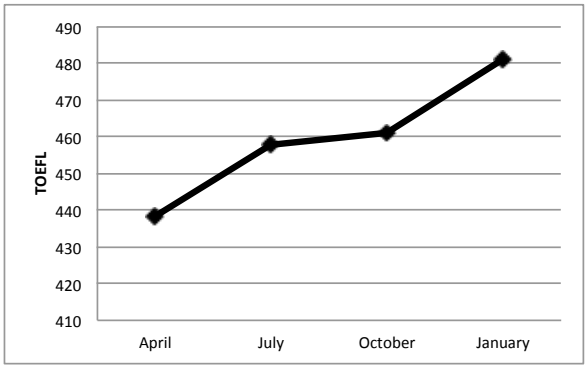


Figure 6.1. Average of TOEFL-ITP scores

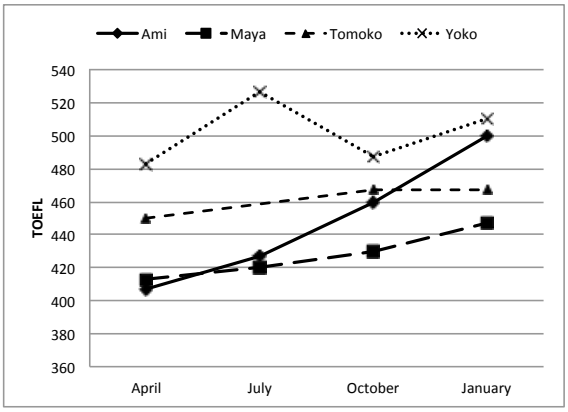


Figure 6.2. Individual TOEFL scores

5.3. Changes in Frequency of Word Search Sequences

In this section, I will display the overall frequency of the word search candidate solutions used by the Japanese participants of this study. In particular, I will quantify the frequency of word search candidate solutions used. The quantification was done after CA

analyses.

Figure 6.3 presents the number of word search sequences and the combined frequency of candidate solution turns among the four participants. As the graph shows, there is not much of a difference between April 2010 and January 2011 just from the frequency of the use. During the last recording in January 2012, however, there is a sudden decrease in the use of word search sequences. It can be argued that the participants did not change during the data collection period solely based on this data, and the Japanese participants' language ability did not develop.

Similarly, Figure 6.4 displays the frequency of the three most common candidate solutions of the four participants combined. As discussed in Section 4.3.2, the use of code-switching decreased from approximately 13 cases in April 2010 to 9 cases in January 2011. In contrast, the use of semantic contiguity strategies gradually increased from 5 cases in April to 12 cases in January 2011. The use of the candidate word was constantly high with 12 cases being the lowest in June and 19 cases being the highest in July (an average of 14.7 cases per month). Therefore, in general, the participants have changed their tendency of candidate solution use.

In January 2012, there is a sudden change in the frequencies of the strategies, and the use of candidate words becomes the most common strategy, while the use of semantic contiguity strategies becomes the least common. The decrease in the use of semantic contiguity could be due to the overall decrease in the word search sequences. This suggests the continuous tendency towards the use of candidate words among the participants. However, Figures 6.3 and 6.4 only display the frequency of the word search sequences, and the lengths of the recordings vary. In other words, the frequency is based on different parameters and the reliability of the changes cannot be accounted for.

Moreover, when observing the use of the candidate solutions among the individual participants, there is a discrepancy from the overall tendencies as seen from Figures 6.3 and 6.4. Figure 6.5 displays the individual frequency of the self-initiated word search sequences and prosody-marked candidate solutions. Figure 6.6 displays the frequency of the candidate solutions used by the individual participants.

According to the data, Maya displayed relatively higher frequency of word search use than other participants. Ami and Yoko displayed some increase in the use of semantic contiguity strategies in resolving word searches, while Maya and Tomoko displayed a tendency of using candidate words and code-switching more frequently. Therefore, it is difficult to make any decisive conclusions on the changes of the use of word search sequences based only on the frequency of the usage.

Nevertheless, largely two interpretations can be drawn from the frequency and the figures from quantification. First, if the initial overall proficiency level is higher, the participants tend to use fewer word search sequences. As displayed in Figure 6.5 below, Ami and Maya used relatively more word searches than Yoko and Tomoko throughout the data collection period. Second, while Ami and Maya showed increasingly more instances of prosody-marked candidate solutions, Yoko and Tomoko used this method of resolving word searches minimally. In total, Ami used the prosody-marked candidate solutions 62 times, and Maya 54 times, while Yoko used it 13 times, and Tomoko only seven times.

Therefore, it could be claimed that the lower overall language proficiency L2 users have, (a) the more they will use word search sequences, and (b) the more they will use prosody-marked resolving strategies during word search sequences. Thus, to some extent, it may be interpreted as being consistent with previous SLA researchers' claim of word search associated with lack of linguistic ability (e.g., Hilton, 2008; Koizumi & In'nami, 2013).

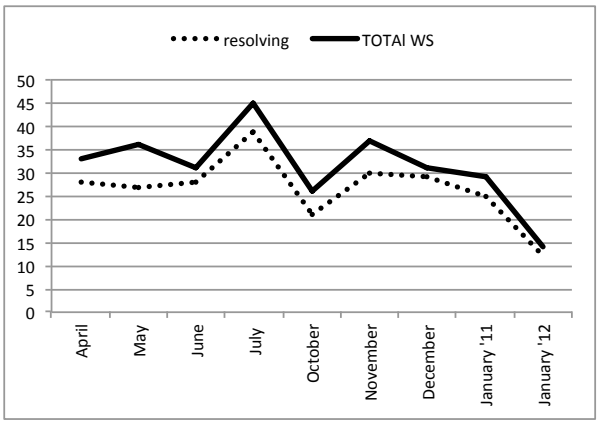


Figure 6.3. Frequency of word search sequences and candidate solutions

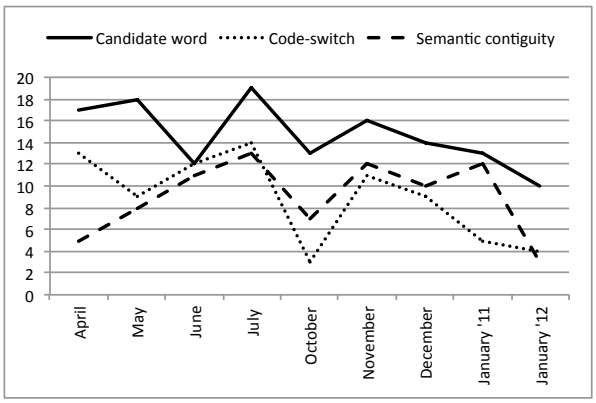


Figure 6.4. Frequency of strategies used as candidate solutions

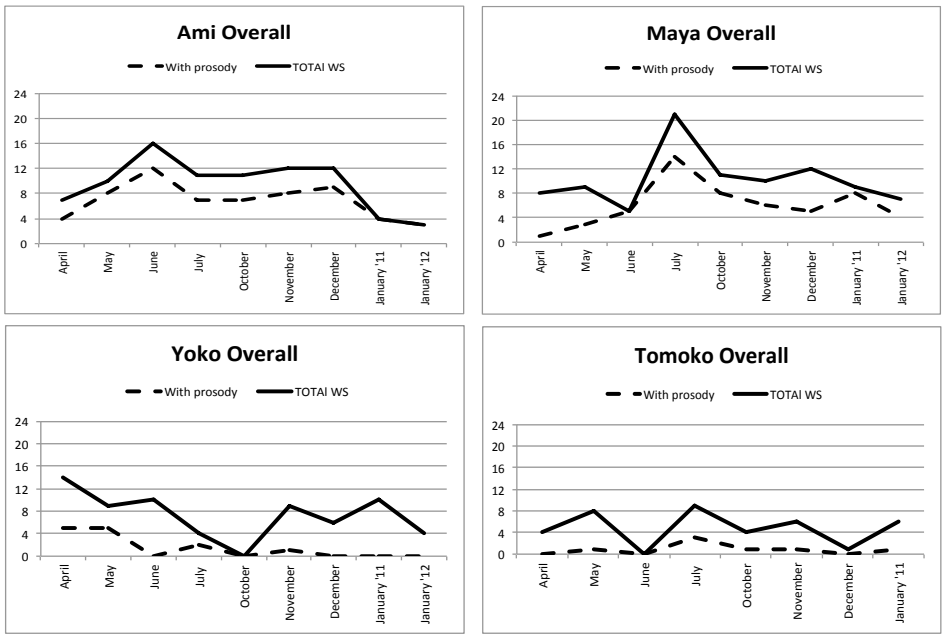


Figure 6.5. Individual frequency of word searches and prosody-marked candidate solutions

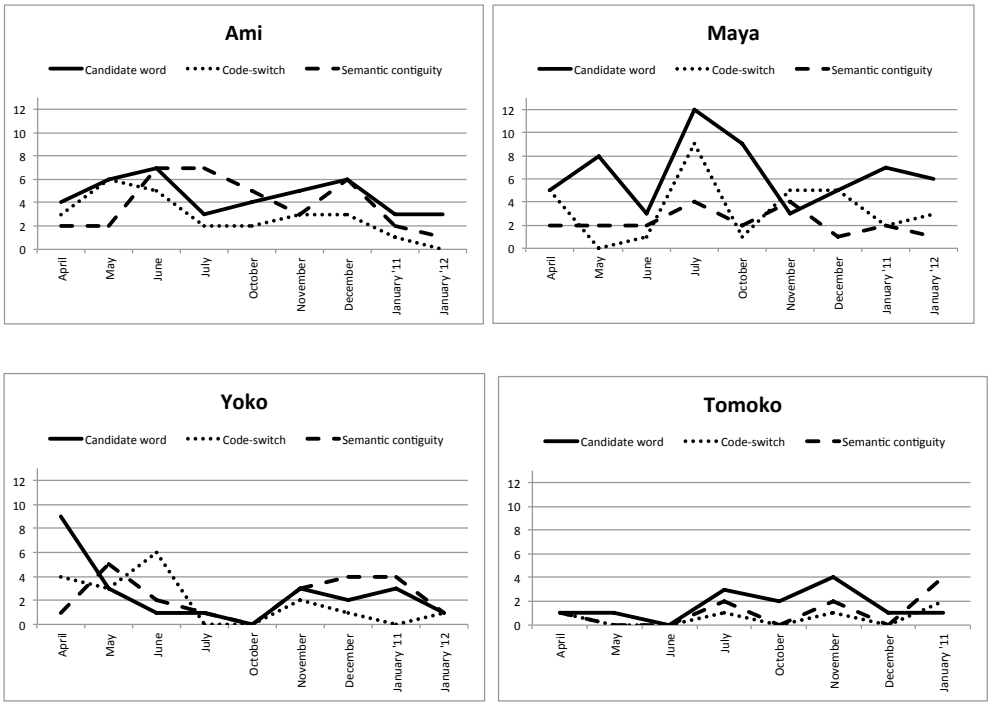


Figure 6.6. Individual frequency of strategies used as candidate solutions

However, as mentioned previously, this claim is only based on a simple quantification of single occurrences and does not incorporate other variables such as the different partners, nor the length and the topic of the conversations. Therefore, the changes that can be observed through the quantified data are only one side of the spectrum of change. In other words, no definite conclusions of change and development can be drawn solely from these quantified data of word search sequences. Furthermore, the change in the frequency does not hold practical implications towards understanding ELF interactions.

If we analyze the actual sequences in more detail, however, a different perspective of change over time was observed that provide deeper insights into how interactions are organized in ELF conversations and change over time. In the following sections, I will analyze the word search sequences of the four participants individually. Namely, I will focus on the recovering of word searches done by the Japanese participants with their fixed partners, and demonstrate the changes that are displayed from an emic perspective. By focusing on the fixed partners, I aim to highlight the patterns that are created in the localized

interactions, as well as the emergent changes that occur.

Below, I will analyze the four participants in the order of Ami, Maya, Yoko, and Tomoko. Their use of word search sequences, mainly with their fixed partners, will be analyzed in terms of frequency, details of the interactional sequence, and then their orientation to the interaction.

5.4. Ami's Changes of Word Search Sequences

Ami's fixed partner was Hang, and the two recorded together the whole duration of the study. When analyzing Ami's word search, largely three changes in Ami's word search sequences with Hang were identified: (a) the overall frequency of word searches, (b) Hang's response to Ami's prosody-marked candidate solutions, and (c) Ami's change in the reason for the use of the prosody-marked candidate solutions.

5.4.1. Ami's overall frequency of word searches

The first change was in terms of quantity. As shown in Figure 6.7, overtime, Ami's overall other-involved word search initiation decreased. The most frequent use was ten times in May and June, and lowest was twice in January 2012. On average, Ami had six word search sequences per month, and approximately 75% of the word search candidate solutions were accompanied with a rising intonation. Thus suggesting that the use of prosody was Ami's favored method in such situations.

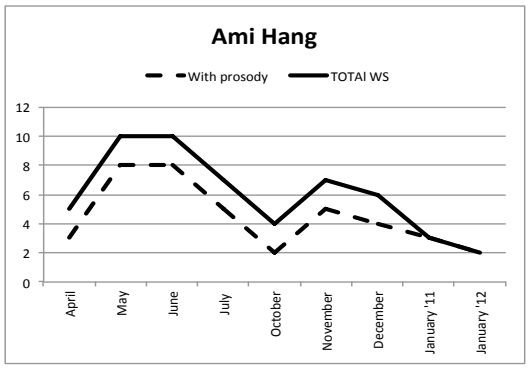


Figure 6.7. Ami's word searches with Hang

5.4.2. Change in partner's orientation: Preference towards progressivity

Along with the change in the quantity of prosody-marked candidate solutions, Hang's response to Ami's self-initiated word searches showed change. That is, Hang's orientation to the sequence as Ami's learning opportunity changed, and displayed preference towards progressing the talk.

Excerpt 34 is a typical example of a word search during the first three months of recording between Hang and Ami, where Hang's orientation to the sequence as a possible learning opportunity for Ami can be observed. The recording is from June, and Ami is talking about her nail polish purchased during her trip to Korea.

<Excerpt 34: Ami Hang June Light pink>

```
1      Hang:   so wh- (.)↑which color,
2              you buy (0.3) in Korea?
3      Ami:    (0.4) ah- (.)↑hmm (.) like (.) a pink?
4              but (.) .suu mhh ↑nea:r the hwhi:te.
5      Hang:   ↑ah::=
6      Ami:    =hmm=
7  →   Hang:   =↑light (.) pink.
8  →   Ami:    light pink,
9  →   Hang:   ↑hmm=
10     Ami:    =↓ah
11     Hang:   ↑°ah::°
12     Ami:    [◦light pink◦
13     Hang:   [◦light pink◦
14     Ami:    I think its (.) cute
```

In line 3, Ami hedges and displays thinking or searching of the next word. She then provides an approximation token "like" (Fuller, 2003a) and then a semantic continuity of the color ("pink but near the white") attempting to solve her word search (line 3-4). Hang then shows understanding through "ah" (line 5). However, Hang does not stop here, but corrects Ami by displaying her understanding of the color as "light pink" (line 7) with a clear enunciation and stress on each word. Ami aligns to this other-correction through repeating the word twice, the first time confirmed by Hang and the second time softly but in a choral with Hang (line 8-9, 11-12). Although Hang had displayed that she had understood Ami, Hang continues to provide the more accurate word, which is then repeated by Ami. This is similar to

IRF sequences (Sinclair & Coulthard, 1975) with Hang modeling, Ami repeating, and positive feedback by Hang, similar to a classroom practice and Hang taking on the teacher-like role. Thus mirroring a pedagogic sequence and displaying the participants' orientation to this sequence as a learning-teaching opportunity. Similar cases can be found in previously analyzed excerpts such as Expert 29 (Section 4.4.2) where corrections were explicitly done by Hang.

However, from the forth month, July, and onwards, there was a change in Hang's reaction to these candidate solutions. Excerpt 35 is from July, and Ami and Hang are talking about the different dialects of English.

<Excerpt 35: Ami Hang July Learn>

```
1     Ami:    because ↑I (0.5) mmh ↑I heard
2             (.)↑I has (.) be::n lu' (0.4)
3  →          la (0.3) learn?
4  →          (0.6)
5     Ami:    I has been learn da:=
6     Hang:   =mm
7     Ami:    American English? s[ince
8     Hang:                     [mmh
9     Ami:    my: °elemen° uhh (.) since
10            uh (.) elementary school [°student°?
11    Hang:                            [mmh
12    Ami:    so it's .hhh maybe difficult fo:r us t[o:
13    Hang:                                         [yeah
14    Ami:    (0.4) speak
15    Hang:   mm
16    Ami:    da New Zealand English hhahahh
```



Figure 6.8. Line 4 (0.6)

In line 2, Ami initiates a word search with silence, cut-offs, and elongated vowel sounds. She then provided candidate solution "learn" with a rising intonation (line 3). Hang does not respond to this while keeping firm eye contact with Ami (line 4, Figure 6.8). Ami

then restates the phrase with the potential trouble source (line 5). Hang responds to Ami with a "mm" (line 6). By Ami continuing her story after this, we can interpret that Hang's utterance was recognized as "showing listening" or as a continuer, rather than as a confirmation of the accuracy of the word Ami chose.

Comparing Excerpt 34 and 35, we can see that Hang in Excerpt 35 is not participating in Ami's word search. As a result, the sequence becomes a self-repair sequence, which is known to be "preferred action" (Pomerantz, 1984) in L1 speech (Sacks & Schegloff, 1979). Hang is showing her orientation to the interaction as a mundane conversation rather than learning or teaching opportunity, and thus Ami is not positioned as a L2 novice in Excerpt 35. Furthermore, the two participants are displaying their preference towards the progressivity of the talk (Heritage, 2007; Stivers & Robinson, 2006) over accuracy of language choice or learning.

This difference in orientation towards the conversation, and Hang not positioning Ami as a L2 speaker, was only seen from July and onwards. Excerpt 36 is another example from July where a difference in their interactional goal can be observed. The two are discussing the income gap in Vietnam, where Hang is from.

<Excerpt 36: Ami Hang July Gap>

```
1      Ami:   ↑in betna:m ah: are there (0.5) AH BIG?
2             (1.0) ((Ami gesture of gap))
3             mm °big separate° no big (0.7) the:::
4             (0.4) I mean the: (0.4) poor?
5      Hang:  [mm
6      Ami:   [the (0.3) the:: .sss ah the some of student
7             is poor but (.) some of student is very rich?
8      Hang:  ↑mmm[mm::
9   →  Ami:       [so:: (0.4) are there lot >ah< big
10  →          (0.6)
11  →  Ami:   °how do you say° the
12            (1.0)((Ami gesture of gap))
13     Hang:  big ah: gap? ((Hang gesture of gap))
14     Ami:   ↑YA BIG
15     Hang:  big gap
16     Ami:   gap in be ah betnam?
17     Hang:  ↑mm[mm:::
18     Ami:      [right?
```



Figure 6.9. Line 2 (1.0)



Figure 6.10. Line 8 “mmm”



Figure 6.11. Line 12 (1.0)



Figure 6.12. Line 13 “gap”

In line 1, Ami specifies Hang’s home country Vietnam, and attempts to start a question “Are there a big” when she pauses and displays a gesture (line 2, Figure 6.9) of the word that follows. Ami then presents a candidate word “big separate” but then rejects it and continues searching for the word through a display of pause and elongated vowel sound (line 3). After a slight pause, Ami takes a different strategy in resolving her word search by using “I mean” (Sacks, 1992) and providing an explanation of the previous utterance (or a semantic contiguity). In line 6, Ami explains that there are some poor students but there are also very rich students. In the next turn, Hang backchannels with a high pitch and disengages eye contact from Ami (line 8, Figure 6.10). This suggests that Hang has understood Ami and is thinking of the answer. However, before Hang can answer the question, Ami overlaps and restarts the original question with “so” and this time with quantity (“lot”) and a stressed “big” followed by a pause (line 9).

When Hang does not take the turn after “big” (line 10), Ami then clarifies that she is

requesting for the word she is searching for by saying “how do you say the” followed by again of the gesture of a gap (line 12, Figure 6.11). Hang then aligns to Ami’s word search by repeating the last word “big” followed by a short hesitation while doing the same gesture as Ami (Figure 6.12) and a candidate understanding of “gap” with a rising intonation (line 13). By doing the similar “gap” gesture, Hang specifically displays that she is aligning to Ami and her word search. This candidate understanding is then accepted by Ami with a loud high pitched “ya” (line 14).

However, Ami displays trouble producing the word and stops after “big” (line 14). Hang, unlike what happened in line 9, this time aligns to this word search by repeating “big gap” (line 15). Ami repeats the “gap” and displays her attempt to learn. And only then does she complete her original question of “gap in Vietnam” and the conversation shifts back to the main topic (line 16). Hang backchannels, which is the followed by a confirmation request by Ami using a tag question “right” (line 17-18).

Comparing line 9-11 and line 14-15, it could be said that in the former segment there was a difference in the orientation towards the talk between Ami and Hang. While Ami was orienting towards searching for the word, Hang was orienting towards understanding and responding to the question (lines 9-11). In contrast, in the latter segment, lines 14-15, both participants are orienting towards Ami’s word search and learning of the word “gap.” However, this does not occur until Ami explicitly request for the search by stating, “how do you say” (line 11).

This feature of Hang not immediately orienting to the word search or not providing a word unless explicitly requested only appeared after the fourth month of the recording (July) between Hang and Ami, suggesting there is a change occurring in terms of Hang’s attitude and orientation toward Ami and the interactional goal, as well as the relationship between the

two participants.

5.4.3. Adapting to the partner's language development: Change in reason for using prosody-marked candidate solutions

The final change that was observed is the context in which Ami used the rising intonation with the candidate solution. As seen in previously presented excerpts (e.g., Excerpt 19, 21, 29, 31, 33, 35), the typical use of the prosody-marked candidate solution is to elicit Hang's confirmation or correction. However, after the third month, Ami started to use the prosody-marked candidate solution differently. Excerpt 37 is from November, the sixth recording between Ami and Hang. The two are talking about the school festival.

<Excerpt 37: Ami Hang November *Mogiten*>

1	Ami:	but ac- (.) actually ah
2		(.)I was joini:n' da:
3		(0.3)
4	Hang:	[∘un∘
5	Ami:	[ah (0.2) like
		[((Ami house gesture))
6	Ami:	*mogite:n*?
		"booth/store"
7		(0.4)
8	Hang:	[°mo°
9	Ami:	[*mogiten* is ↓shop
		"booth/store"
10		(0.5)
11	Hang:	[↑ah::
12	Ami:	[it was sho:p
13	Hang:	food?
14	Ami:	(0.4) ya [food shop (.) food shop
15	Hang:	[( )
16		mm (0.2)

In line 5 Ami uses an iconic gesture and silence to initiate a word search, followed by a candidate solution of "*mogiten*" (booth/store) with rising intonation (line 6). However, Hang does not respond (line 7). Rather than moving on to a longer sequence of negotiating the meaning of the word which tended to happen in April and May, Ami provides the definition of *mogiten* as a "shop" (line 9), and Hang acknowledges this in line 11. As a result, the conversation does not go on to an extended word search side sequence.

By Ami using a prosody-marked candidate solution that she can explain immediately

using other words in English, it suggests that Ami is not seeking a correction or confirmation of the word choice from Hang. Instead, Ami is checking Hang's understanding of the culturally specific Japanese word, while seeking the chance that Hang may know the word. Hang's increase in her Japanese knowledge had been seen through the interactions, such as in Excerpt 11 with *suppai* (sour) and Excerpt 20 with *atsui* (thick). Therefore, over time, not only did Ami display changes, but also the interactional environment (Hang) displayed changes.

As a result, Ami seems to shows her understanding of Hang as a knower of the Japanese language and at the same time, she is not positioning herself as an "English language learner." Ami's action is similar to what Sert (2013) calls "epistemic status check" where speakers make sure that there is a mutual understanding before proceeding with the talk. In this case, Ami showing to have more knowledge over Hang. Again, this phenomenon was only found after the third month.

To summarize this section, Ami's word search sequences displayed changes of (a) decrease in overall frequency of word searches, (b) partner's change in orientation towards Ami's word search sequences, and (c) change in use of the prosody-marked candidate solutions. In other words, Ami displayed adaptation to her partner Hang, the interactional environment. Ami adapted to Hang's increase in Japanese ability and started to use Japanese to describe objects that she knew the word for in English, and initiated explicit word searches when Hang did not respond. Thus, Ami displays a result of adaptations to her interlocutor to improve achieving her interactional goal of achieving mutual understanding and language learning.

Furthermore, by Hang not foregrounding the interaction as a language learning opportunity and Ami as an "English language user," rather than an "English language

learner," it suggests a progressive change of epistemic stance of the interlocutors in interaction becoming closer.

5.5. Maya's Changes of Word Search Sequences

Next, I move on to examine a different participant, Maya. Maya had two different fixed partners Kei and Yanti. She started her recordings with Kei in the first semester during April to July, then due to scheduling issues, changed the fixed partner to Yanti during the second semester, during October to January 2011. From the analysis, there were three major changes identified through the interactions with her fixed partners: (a) change in her effectiveness of using candidate solutions, (b) change in her partner's orientation towards the interactional goal, and (c) emergent method in securing intersubjectivity. What did not change was Maya's overall frequency of word search sequences.

5.5.1. Maya's overall frequency of word searches

In terms of frequency of the word searches with the fixed partners, Maya's use did not change overall through the collection. The frequency of word search sequences and those accompanied with prosody are displayed in Figure 6.13. The July 8th recording between Maya and Kei was calculated as done in June to be consistent with the other participants in terms of the number of recordings.

Maya on average had approximately 7.3 word searches per month with Kei, of which on average four word searches were attempted to be resolved with a prosody-marked strategy. With Yanti, Maya had on average of 8.5 word searches per month, and on average 5.5 word search sequences per month were attempted to be resolved with a prosody-marked strategy. Combined, May had on average of approximately 7.9 word search sequences per month, and of which 60% were attempted to be resolved with a prosody-marked strategy. This is similar with Ami where the prosody-marked candidate solution was commonly used, and displayed

an increase in the use during the first few months of the recording.

No clear changes in terms of reaction to prosody-marked candidate solutions were identified between Kei and Maya. In most cases, Kei provided a solution (candidate word) with or without prosody in response. Not until July did Kei ignore or "let it pass" (Firth, 1996) a prosody-marked candidate solution without a correction. In contrast, Yanti tended not to engage in the teaching-learning interactional roles and displayed focus more on the content and progressivity of the talk.

In the recording with Kei in January 2012, Maya used 7 word search sequences, of which 4 were accompanied with prosody. This is excluded from Figure 6.13 since there is a large gap in time between the recordings after the last recording with Kei in July 2010.

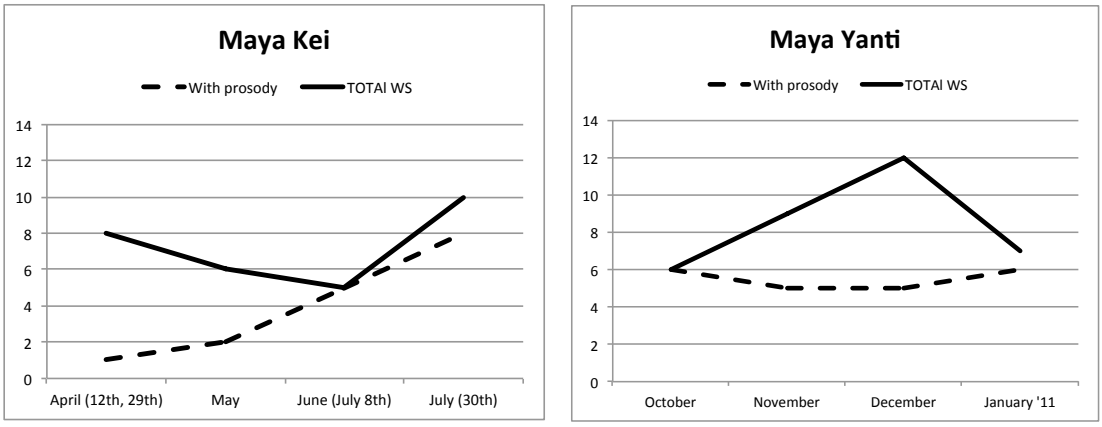


Figure 6.13. Maya word search sequences with Kei and Yanti

5.5.2. Change in effectiveness of candidate solutions

Although there were no significant changes in Maya's use of candidate solutions of word search sequences over time in terms of frequency, changes in the effectiveness of using the strategies and of relying on the interlocutor in achieving mutual understanding were found. In other words, Maya was found using candidate solutions that relied less on the interlocutor's linguistic knowledge in achieving mutual understanding.

In her early recordings, Maya was found relying heavily on the interlocutor's scaffolding, despite she was using various word search resolving methods such as code-

switching, gesture, and semantic contiguity (explanations). This tendency is shown in Excerpt 38, the first recording done between Maya and Kei in April. Kei asked May what activities he could do if he visited her hometown.

<Excerpt 38: Maya Kei April Fireworks>

```
1  →  Maya:   a:::hh (1.7) doing (0.8) hanabi.
                                          "fireworks"
2     Kei:    (0.4) hanabi.
3     Maya:   hanabi (0.4) do you kno:w?
              "fireworks"
4     Kei:    (0.4) °umh:° what's hanabi.=
5  →  Maya:   =hanabi (.) is (0.9) JAPAnese cultures
              "fireworks"
6             (1.2) a::h Japanese culture a:::nd
7             (0.6) hhanabi.
                    "fireworks"
8             (2.3)
9     Kei:    what do you do:?=
10 →  Maya:   =flower fire .hh [HUH HH
11    Kei:                    [huh?
12    Maya:   $flow(h)er fi(h)re$hh=
13    Kei:    =°$flow(h)erf(h)ire$°[huhh
14    Maya:                        [huhhuhh
                                   [((launching gesture))
15 →  Kei:    ↑OH (.) ↑Firework
16    Maya:   ↑firework?=
17    Kei:    =unh
```



Figure 6.14. Line 14 Launching of fire works

After a few long pauses Maya uses Japanese "*hanabi*" (fire works) (line 1). This use of the pause in line 1 is ambiguous, whether Maya was thinking about the content or the word choice. When Kei repeats "*hanabi*," Maya confirms through repeating (line 2-3). Then she asks if he understands, which could be interpreted that Maya recognizes the possible problematic word choice. Therefore, the pauses in line 1 are likely to be due to Maya

searching for a word.

Kei after a slight pause requests for an explanation of *hanabi* (line 4), and Maya starts her attempt of explaining *hanabi*. However, the extent she can go is to explain that it is a "Japanese culture" (line 5-6). When Kei prompts a question "what you do" (line 9), Maya provides a literal translation of the Chinese characters for *hanabi* (花火 flower-fire) followed by laughter, marking the word choice (Firth, 2009) and displaying her understanding that is it an unconventional word use. Overlapping, Kei responds with an open class repair initiator, "huh" (line 11). Maya then repeats, "fire flower" again, this time with laughter (line 12), possibly displaying embarrassment and the laughter functioning as a face-saving device (Adelswärd, 1989). "Fire flower" is repeated by Kei also with laughter (line 13), and is then joined by Maya's laughter. As a result, Maya's candidate solution of "fire flower" is jointly treated as a laughable item. While laughing, Maya uses gesture to describe the launching of fire works (Figure 6.14). This seems to prompt Kei's understanding and he shows a change of state ("oh"). Kei then provides the English equivalent, "firework" (line 15). Maya repeats this, which is confirmed by Kei (line 16-17).

Here we see that Maya is incapable of fully using semantic contiguity strategies in explaining the word she is searching for. Furthermore, she relies on Kei's scaffolding of suggestive questions and linguistic knowledge in order to resolve the word search.

Excerpt 39 is a similar case from Maya and Kei's second recording. Maya is explaining what she did after coming back to the dorm from her classes.

<Excerpt 39: Maya Kei April 2 Sweet Potato>

1	→	Maya:	ah::: I ate (2.3) °*imo*.°
			"potato"
2		Kei:	eemo?
3		Maya:	*imo*.
			"potato"
4		Kei:	what's eemo
5		Maya:	*imo*. (1.3) I ate

		“potato”
6		(1.4)
7	Kei:	[is it a (.) meat?
8	Maya:	[((Maya gesture of long object))
9		(0.5) meat. (.) vegetable?
10	Kei:	<it’s a vegetable>=
11	Maya:	=vegetable?
12	Kei:	a:::nd what (.) >what what< do people
13		usually ↑cook with that.
14	Maya:	ah:::: (1.3) Hitaru(eats) Hikaru,
15	Kei:	mh huh
16	Maya:	Hikaru: made (0.5) °made°
17		(0.5)°*imo*.° hhh
		“potato”
18	Kei:	°eemo°
19	Maya:	$*imo*.$ (0.5) .hhhuhu ah:: >no no-<
		“potato”
20		ah::: (1.3) can I use dictionary?
21	Kei:	↑yah >sure sure sure<
22		(0.8)
23	Kei:	take your ti:me
24		(1.3)
25	Maya:	*imo*
		“potato”
26		(4.6)((Maya looking up dictionary))
27	Maya:	↑pote↓to
28		(0.6)
29	Kei:	ah po↑tato:
30	Maya:	↑AH no no no
31		(1.0)
32	Kei:	sweet potato?
33		(0.7)
34	Maya:	↑SWEET ↑poteitoe. ((looks up))
35	Kei:	sweet potato
36	Maya:	yesss
37	Kei:	°okay°



Figure 6.15. Line 8 Imo



Figure 6.16. Line 26 Using the dictionary

In line 1, Maya uses a 2.3 second pause mid turn, suggesting that the following word is a trouble source. She then switches to Japanese and says “*imo*” (potato). Kei repeats this with a rising intonation, which Maya then treats this response as a hearing issue and repeats

"*imo*" (line 2-3). Kei then makes it explicit that is was not a hearing issue, but an understanding issue by using an interrogative ("what's eemo"). In the next turn, Maya repeats "*imo*" again, possibly repairing Kei's pronunciation. She then attempts a re-do of the original statement ("I ate"), but then fails to complete her turn (line 5-6).

Kei attempts to scaffold in searching for the word by asking the type of food ("is it a meat"), while Maya uses gesture in describing the food (Figure 6.15) and responding that it is a vegetable (line 9). When there is no additional information coming from Maya, Kei then asks another question to elicit more information (line 12-13). However, rather than answering the question, Maya responds by describing what she saw, that is, Hikaru, a dorm mate, cooking it (line 14-17).

Maya then starts laughing (line 17, 19). This laughter can be understood as Maya marking the non-standard use of the word "*imo*" (Firth, 2009), or marking the failure of a repair try (Wilkinson, 2007). Maya then requests for permission to use the dictionary. Her laughing and asking for the dictionary could be interpreted as Maya giving up on using her own ability in reaching a mutual understanding, as well as displaying the dispreferred action of using the dictionary during talk (Hauser, 2014). At the same time, Maya asking for permission and Kei complying with it and adding, "take your time" (line 23), creates an other- and self-positioned dynamic of Kei in a superior position whereby he controls the interactional floor. Furthermore, Kei presents himself as being more relaxed about the interaction.

In line 27, Maya presents "potato" as the word she has found from the dictionary, but then denies it with "no no no" (line 30). When there is no alternative presented by Maya (line 31), Kei then presents a candidate word, "sweet potato" with a rising intonation (line 32). This is then accepted strongly by Maya with a loud voice, and rejoins gaze with Kei (line 34).

Although Maya is using code-switching and attempts to explain the object ("vegetable"), this does not resolve the word search. Even the dictionary use only allows her to elicit "potato" and not the exact word she is searching for (i.e., sweet potato). Instead, Kei is the one who at the end provides the word Maya is searching for. As a result they finally reach a mutual understanding in lines 36-37. Maya's reliance on the other speaker to resolve word searches and achieving mutual understanding was not only with Kei but with other recording partners as well.

However, in the later months, Maya displays a more effective use of candidate solutions which involved less scaffolding and reliance on the interlocutor's linguistic expertise. An example of this can be found in Excerpt 40, Maya's recording in October with Yanti and Tama. Maya is explaining a beach event where she sold Indonesian food.

<Excerpt 40: Maya Yanti Taman October Seconds>

```
1     Maya:   mmh. becuz ah:: (1.0) >abecuz<
2             >no no no no< (0.5) da (.)
3  →          I can  (1.0) re (0.4) <re(.)take>?
4             retake
5     Taman:  uh=
6     Yanti:  =mh rekate [(     )?
7     Taman:             [retake
8     Maya:   >yeah yeah hh<=
9     Yanti:  =↑ah:::
10    Maya:   uh. I (.) I finish eatin' uh:::=
11    Yanti:  =ah[::::
12    Maya:       [>please< $please o:ne hh mmmo(h)re$
13            hhahah[hhh
14    Taman:        [↑AH:[::
15    Maya:             [mhhh=
16    Taman:  =↑AH::: sugoi
                      "great"
```

In line 3-5, Maya displays that she is searching for a word through the multiple pauses, cut-off, and a candidate word of "retake" with rising intonation, which is then repeated. Similar to Excerpt 39 with "fire flower," "retake" is possibly the literal translation or language transfer of the Japanese word "*okawari*" (seconds or a refill). Taman responds with "uh" and repetition, while Yanti responds with a confirmation question. Maya then

confirms this (line 8), and Yanti uses a change of state token "ah" and displays acknowledgement (line 9). Unlike what occurred with the previous Excerpts 39 and 40, Maya continues to explain what she means by "retake" without any scaffolding from the interlocutors (line 10, 12). Yanti then finally displays a change of state or understanding and presents her assessment in Japanese as "*sugoi*" (great) (line 14, 16). Thus, despite Maya's unconventional language use, the three displayed reaching intersubjectivity with minimal scaffolding effort.

Maya displayed independence in her candidate solutions with Kei and with a more complex concept as well. Excerpt 41 is between Maya and Kei recorded in early July. Maya is explaining her presentation topic of *doshusei*, the state and county system in Japan.

<Excerpt 41: Maya Kei July8th State System>

```
1      Kei:    so what are you guys presenting about.
2   →  Maya:   (0.5) ↑a::hh (0.6) do:shyu:sei?
                                  "state system"
3              (0.4)
4      Maya:   [do you know?
5      Kei:    [°do:shyu:sei°
6              (0.5) ((Kei shakes head))
7   →          (2.0) ((Maya picks up dictionary→puts down))
8   →  Maya:   >dosyusei like< (0.5) u::m (3.4)
               "state system"
9              a:hh (0.5) the government=
10     Kei:    =°uh huh°
11             (2.0)
12     Maya:   °mh°(0.4) separated the: (0.3)
13             Japanese (.) ja- (.) Japan?
14             (0.8)
15     Maya:   [so
16     Kei:    [°uhm°
17             (0.6)
18     Maya:   °nh?°
19     Kei:    from where
20     Maya:   (0.4) fro::m=
21     Kei:    =separation bu'(.) [Japanese: land
22     Maya:                      [Japan
23     Kei:    From
24             (0.8)
25     Maya:   trom?
26             (0.5)
27     Kei:    from?
28     Maya:   from? (0.5).hhhh u:::m:::
29             (1.3)
30     Maya:   except (1.0) Hokkaido?
31     Kei:    °umhuh°
32             (1.0)
33     Maya:   e::hh (0.8) Honshyu: (0.3) Shikoku. (0.5)
```

```
34    Kei:    [°uhm°(.)°mhh°
35    Maya:   [Kyu:syu
36            (1.4)
37    Maya:   oh (1.0) about (0.8) eight? (0.8) eight
38            (.) to: (1.6) °about° (1.2) fifteen? (.)
39            fifteens (1.0) a::hh (2.1) divide.
40    Kei:    (0.4) °uh huh::°
```



Figure 6.17. Line 7 Picks up dictionary



Figure 6.18. Line 7 Puts dictionary down

After Kei's question of the presentation topic, Maya shows thinking through pauses, hesitation, and then states in Japanese "*doshusei*" (state county system) with a rising intonation (line 2). It is unclear at this point if the thinking action was regarding recalling the topic or searching for the word. However, after a slight pause, Maya asks Kei if he knows the word, displaying her understanding that the word choice (*doshusei*) may have been problematic for Kei to understand. Kei, as Maya predicted, repeats *doshusei* and then shakes his head to display not knowing the word (line 5-6).

At this point, Maya picks up her dictionary as she did in Excerpt 40 with "*imo*" and seems as if she is going to look up the word (line 7). However, she puts the dictionary down (Figure 6.17-6.18), and attempts to resolve the non-understanding through her independent explanation (line 8-39). Although the repair work by Maya is extended over multiple turns with Kei requesting for clarification at some points (line 19, 21), unlike Excerpts 39 and 40 with fireworks or sweet potato, Maya continues to explain the concept of *doshusei* with minimal scaffolding. In line 40, Kei uses backchanneling to suggest that he has understood, and the conversation moves on to the next topic regarding members of the presentation group.

Kei may not have presented an outright repair due to the unique concept that Maya

was explaining and he did not hold any knowledge of it. Nevertheless, Maya does not abandon the explanation and resolving process as she had done previously, and displayed persistence in continuing to achieve mutual understanding without the help from the dictionary and excessive interactive support from the interlocutor to achieve mutual understanding.

The change described in this section displays the change in Maya's engagement and ability in independently resolving her word searches. She demonstrated more autonomy in achieving mutual understanding after her initial failure to locate the word, without the extensive scaffolding from the interlocutor. Thus it can be considered as Maya's adaptation and a positive change in her ability in word search sequences in reaching a mutual understanding more efficiently.

5.5.3. Change in partner's orientations: Preference towards progressivity

In addition to the change in Maya's method of resolving word search sequences, change in Maya's self and other positioning as a "learner" and Kei as the English language "expert" was observed. Excerpt 42 is from their second recording. Maya is explaining about an English studying video game that can check pronunciation.

<Excerpt 42: Maya Kei May Tells me / Pronunciation>

```
1 →   Maya:  ah:::: (1.0) da game (0.5) tell tell
2            (0.6)
3 →   Kei:   told me
4 →   Maya:  told me=
5     Kei:   =tells me
6     Maya:  tells [me?
                   [((gaze at Kei))
7            (0.6) ((Kei quick nod))
8     Maya:  ah::m (1.4) pronunshes: (0.3)
9  →         <pronunciate>?
10           (0.5)((gaze at Kei))
11 →  Kei:   pronuncia:tion
12 →  Maya:  pronunciation (.) is
13 →         (0.3) [noun?
                   [((gaze at Kei))
14           (0.6)
15 →  Maya:  pronunicate (0.6) is verb?
```

```
16     Kei:   °mh huh°
17 →   Maya:  pronunicate (0.4) thiss ssentence
18     Kei:   °mh huh°
```

In line 1, Maya displays thinking and trouble searching for a word through hesitation, pauses and repeating of "tell." After a slight pause, Kei presents a candidate word "told me" (line 2-3). Maya repeats this, when Kei provides a different candidate word "tells me" (line 4-5). Maya then repeats this again, but this time with a rising intonation and gaze at Kei, seeking for a response (line 6). Kei nods to display acceptance or to confirm accuracy of the word (line 7). By Maya not questioning Kei's word choice, and repeating it twice, Maya is displaying her lack of linguistic authority. In contrast, Kei is positioned to have more linguistic authority over Maya.

Once the verb ("tells") was agreed on, Maya continues her story telling. However, Maya quickly faces another trouble of selecting a word. She pauses, presents a candidate word "pronounces" but then provides another alternative "pronunciate" with a rising intonation and gaze at Kei (line 8-10), displaying invitation to the word search (M. H. Goodwin, 1983b). Kei repairs with "pronunciation" (line 11). What is different here from the prior turns is that, in the next turn, Maya asks to confirm the part of speech of the word "pronunciation" and "pronunciate" (line 12-15). Once Maya knows that the verb form ("pronunicate") is what she is searching for, she continues her telling.

Furthermore, the sequence in lines 2-6, where Maya simply repeats Kei with no questioning, and then in lines 12-13, and 15 where she asks Kei of the appropriate form, clearly suggests Maya is lacking confidence in the English language. At the same time, she positions Kei as the English language expert by relying on his other-repair. The sequence demonstrates the two orienting to this particular sequence as a possible language learning and teaching opportunity.

This orientation to the interaction as a learning opportunity was a commonly observed

behavior between Maya and Kei throughout their recordings, especially during the first three moths (April, May, June). However, in July, a slight change in Kei's orientation towards Maya's word search sequence was observed.

Excerpt 43 is from July, the fourth recording between Maya and Kei, approximately 22 minutes into the recording. Maya is explaining about the homework she has from that day's class. Here, we see a change in Kei's orientation towards the sequence as a learning opportunity, however Maya staying the same.

<Excerpt 43: Maya Kei July30th Paragraph>

```
1      Maya:  ple- >$please$< (0.4) please (1.0)
2             mention. (0.6) [° mention?°
                             [((gaze at Kei))
3             °please ° (1.2) ((writing gesture))
4             write (.)the (1.6) sentence (.)
5  →          [lo:ng sentence.
              [((long gesture))
6             (0.5)
7  →   Kei:   [paragraph.
              [((Kei looks away))
8             (0.4)
9  →   Maya:  paragraph,
10            (1.0)
11    Maya:   ° un. °
               yeah
```



Figure 6.19. Line 3 (1.2)



Figure 6.20. Line 5 "long sentence"



Figure 6.21. Line 7 “paragraph”



Figure 6.22. Line 9 “paragraph”

After a cut-off and repetition of “please,” Maya has a long pause (line 1). She then says “mention,” but then pauses, and repeats again with a rising intonation accompanied with a gaze towards Kei (line 2). However, Kei does not respond, and Maya continues the turn by stating “please” again (line 3). By doing so, it is clear that Maya is searching for a word or thinking of how to phrase her idea into words. In line 3, Maya then uses gesture of writing in the air (Figure 6.19), then states “write the sentence.” This is then rephrased as “long sentence” accompanied with a gesture of describing length with both hands (line 5, Figure 6.20).

Although Kei had been looking at Maya’s gestures up till this point, he then looks away from Maya (Figure 6.21) and repairs Maya’s prior turn as “paragraph” (line 7). When Maya repeats, “paragraph,” with a slight rising intonation (line 9), although Kei is looking back as Maya (Figure 6.22), he provides no response (line 10) and Maya continues with her story telling.

Comparing Excerpt 43 and previously introduced segments in Section 4.4.2 between Maya and Kei (Excerpt 28, 30), differences of Kei’s engagement to the word search sequence can be identified. In April, as shown in Excerpt 44 below, after Maya provides the candidate word “underground train,” Kei immediately corrects her turn as “subway” accompanied with gaze with no hesitation. In contrast, in July, as shown in Excerpt 43 below, after Maya

presents her candidate word “long sentence,” Kei does not immediately correct her. Instead, there is a slight pause and Kei looks away just when uttering the repair “paragraph.” In addition, when Maya repeats the other-correction in April, Kei responds immediately again with an uptake. However, in July, there is no uptake, and Maya continues with her talk after a pause (lack of uptake). Therefore, there is a quite a difference in Kei’s engagement towards Maya’s word search.

<Excerpt 43: Maya Kei July30th Paragraph>

```
5     Maya:      lo:ng sentence.
6                (0.5)
7     Kei:       paragraph. ((no gaze))
8                (0.4)
9     Maya:      paragraph?
10               (1.0)
```

<Excerpt 44: Maya Kei April Subway>

```
5     Maya:     <underground> (.) °train°,=
6     Kei:      =↑subway= ((with gaze))
7     Maya:     =↑subway,=
8     Kei:      =↑uuhhh
```

Thus, it can be concluded that in Excerpt 44 in July, during Maya’s word search sequence, Kei is displaying lack of interest in repairing word searches initiated by Maya. As a result, Maya is given the opportunity to self-repair (line 3-5), and is *not* overtly positioned as the “language learner” (line 7-10). Other cases such as this were found in other recordings between Maya and Kei.

Approximately two minutes after Excerpt 43 and 25 minutes into the recording. A clearer case of different orientations towards that talk between Maya and Kei was observed. This sequence was analyzed previously in Section 4.4.1 as Excerpt 26.

<Excerpt 45: Maya Kei July30th Represent >

```
1  → Maya:    represent- (0.4) n, present?=
2    Kei:     =>yeah yeah yeah.<=
3  → Maya:    =>°present? represent.°<
4  → Kei:     represent.
5    Maya     like (1.8) in Korea:(0.4) Kim Yona,
```

In line 1, Maya focuses on achieving the “accurate” word choice by displaying two

alternatives, “represent” and “present.” In contrast, Kei displays understanding and does not repair Maya until he is explicitly confronted with the two choices of present or represent by Maya the second time (line 2-3). As a result, compared to the previous segments, there is a clear difference in Kei’s orientation towards the talk. That is, while Maya is focusing on learning, Kei is focused on progressivity of the talk.

This could be due to the fact that this was their fourth (and last) recording together and that Kei has become indifferent about Maya’s English language learning. Nevertheless, due to the difference in orientation towards the word search sequences, Maya’s position as the “learner” is less apparent in the sequence of Excerpt 43 and 45. This is similar to what occurred between Ami and Hang as discussed in Section 5.4.2 where Hang would not repair Ami unless overtly prompted.

Although the change in Kei’s orientation does not prove Maya’s development directly, it does socially display Maya in a different position. In contrast, Maya in Excerpts 43 and 45 does not self-position herself as a competent user of English.

However, in the same recording, prior to the excerpt above, Maya displays confidence as an English language user and defends her word choice as displayed in Excerpt 46. This segment is from July, approximately 15 minutes into the recording. The same segment was analyzed in Section 4.3.5, Excerpt 23. Maya is describing the content of the course she had that day regarding environmental chemicals affecting species’ reproduction system.

<Excerpt 46: Maya Kei July30th Carp>

1	→	Maya:	the (.) >↑ca:p ca:p< (.)°n?° (.) ca:pu?
2			(0.7)
3		Maya:	fish (.) [°d°.
			[((Maya fish gesture))
4		Kei:	<co:d.>
5		Maya:	ka- kard?
6		Kei:	cod.
7			(0.6)
8		Maya:	ah::.
9			(1.2)

```
10      Kei:    [see oh dee? ((C-O-D))
11      Kei:    [cod
12              (1.6)
13      Maya:   ma:ybe::.
14      Kei:    i- >itsa< ↑white fish right?
15      Maya:   ↑white and (.) ↓red.
16              (0.6)
17      Kei:    >no no.< I mean the meat is (.) white.
18      Maya:   white?
19              (1.0)
20      Kei:    meat.
21      Maya:   meat. [mi- >meat<?
22      Kei:          [the- the-
23              the <fish's ↑meat is white>.
24              (1.2)
25      Kei:    <cod>.=
26      Maya:   =>I I< haven't eat (0.6) the (0.4)
27              co- co:p?
28              (1.2)
29      Maya:   ↑Japanese sound (.) is.
30              (1.0)
31      Maya:   EH? (0.6) co- >AH< (.) ↑CAh: (.) pu.
32              (1.0)
33      Maya:   ° ca:p. ° (.) fish. (0.8) in Japan
34              re- red (.) ca:p. (0.6) or black $ca:p.$
35              (1.4)
36      Kei:    red and black?
37              (0.4)
38      Maya:   [$plea:se hhh my(h) di(h)ctionary::$ .hhh
                [((Maya reaches out her arms))
39              (2.4) ((Kei passing dictionary to Maya))
40      Maya:   ca:p.(.) >do you: know Hiroshima ca:p<? (.)
41              ° in ° (.) Japanese (.) baseball (.) cheam,
42              (1.2) ((Kei shakes head))
43      Maya:   ° eh: °
44              (9.2) ((Maya searching dictionary))
45      Dict:   ° carp °
46              (1.8) ((Maya show her dictionary to Kei))
47      Kei:    °carp (    ) [(      )
48      Maya:                 [↑ca:p
49              (0.8)
50      Maya:   fish
51              (1.2) ((Maya fish gesture))
52      Maya:   Hiroshima (.) ca:p.
53      Kei:    $hh$
54              (1.8) ((Kei looking at Maya's dictionary))
55  →   Kei:    °n::↑: :°.
56              (2.2)
57  →   Maya:   the ↑ca:p change the:
58              (0.4)
59  →   Kei:    ↑AH:::↓:: (0.4) it-
60      Maya:   [m-
61      Kei:    [they yeah. >[they] they<
62      Maya:   male=
63      Kei:    =>yeah yeah yeah yeah yeah<
64              [>yeah yeah yeah yeah yeah<]
65      Maya:   [    t o   f e m a l e?    ]
```

66 Kei: >yeah yeah<
67 Maya: ° *un*. °
"yeah"
68 Kei: its- (.) its because of those chemical.
69 Maya: ° *un* .°
"yeah"

*Dict: Dictionary



Figure 6.23. Line 3 "fish"



Figure 6.24. Line 51 (1.2)

As discusses earlier in Section 4.3.5 Excerpt 23, this was the first time Maya used the dictionary to defend her position and word choice. Thus, suggesting that there is a possible emerging change between the two in terms of the orientation to the conversation and how they display their confidence and certainty of their word choices. Furthermore, Maya displayed more confidence and accuracy in her word search sequences. As a result, Kei's engagement in the word search sequences may have been influenced throughout the rest of the July conversation as demonstrated in Excerpts 44 and 45.

This is similar to the idea of the butterfly effect (Lorenz, 1993), that is, small changes leading to larger changes. The small change in Maya's behavior towards word search sequences may have lead to the change in Kei's orientation towards the interaction and treatment of Maya during word search sequences.

Unfortunately, the two stopped recording together after this and further changes beyond July 2010 could not be analyzed, Moreover, when recorded approximately 1.5 years later in January 2012, Maya had completed taking the required English language classes, moved out of the dormitory, and had started studying Korean. As a result, she had not been

using English for a while and displayed lack of fluency and confidence in her English use again. She displayed more requests for repair from Kei, and Kei displayed alignment to this through his responses. This can be seen in the following segment from the recording done in January 2012. The recording was done on campus, but in an empty office space. Maya is explaining about her apartment owner and his/her unusual behaviors.

<Excerpt 47: Kei Maya January 2012 Mentally Sick>

```
1    Kei:    >uh< so the owner doesn't like Korean.
2            (0.4) Chinese (.) a:nd Japanese.
3    Maya:   umh::. but owner is Japanese.
4    Kei:    ° okay. °
5    Maya:   ° umh hh. °
6            (0.6) ((Maya turning finger near head))
7    Kei:    ° umh. °
8    Maya:   spiritual (0.7) sick?
9            (0.4)
10   Maya:   eh?=
11   Kei:    =mentally sick.
12   Maya:   mentally sick. [un.
                             "yeah"
13   Kei:                    [mh huh
```



Figure 6.25. Line 6 (0.6)

In line 6, Maya presents a gesture of finger twirling near the head (Figure 6.25), describing the landlord's unusual or unstable state of mind. Maya then says "spiritual," but pauses, and presents a candidate word of "sick" with a rising intonation. By doing so Maya displays her uncertainty of her word choice. She then pauses and questions her own word choice with "eh?" Kei displays his interpretation of this as Maya having trouble searching the word and inviting him to join. He immediately responds with a correction of "mentally sick."

Maya then repeats this with a similar intonation as Kei. This sequence is similar to the other-correction sequences shown in Excerpt 28 (Section 4.4.2) from April, with Maya utilizing Kei's language ability and expertise in completing the word search and achieving mutual understanding. Thus, it could be said that Maya has retracted in her position as an English language user back to a novice "learner." This demonstrates the non-linearity of development, and the possibility of attrition or decrease in the ability of the English language.

5.5.4. Adapting to the partner's orientation: Securing intersubjectivity

A similar pattern of change in orientation towards the interaction was found between Maya and Yanti. The two conducted their recordings between October 2010 and January 2011. During the first recording in October, especially, orientation to the conversation as a learning opportunity could be observed. Excerpt 48 is one example where Maya's orientation to the interaction as a learning opportunity and Yanti as the English language expert is apparent.

<Excerpt 48: Maya Yanti October Taught 3>

```
1      Yanti:   nh >I donno< hehehe
2      Maya:    (0.5) be- bery (.) olda: dan you::
3               (.) >$maybe$< [hehehhe
4      Yanti:                [hehehhehe=
5   →  Maya:    =heh.hhhh (.) ↓mhh (0.5) she: (.) she
6   →           (0.8) taught (.) °n?°
7               (0.4)
8   →  Maya:    tea- teached?
9   →           (0.6)
10  →  Yanti:   °taught°
11  →  Maya:    taught? [ehhe
12     Yanti:           [mh
13     Maya:    she taught (.) us (.) nhh Indonesian
14     Yanti:   yeah:
15     Maya:    ↑nhh
```

In line 5, Maya starts a sentence with "she" but then repeats it, pauses and continues with a candidate word "taught." However, she questions her word choice through a prosody-marked "n" and pause, displaying thinking. Then repairs herself with "teached" (line 8). Yanti does not respond right away, but then provides the word "taught" (line 10). Maya repeats,

"taught" with a rising intonation followed with laughter (line 11). Yanti confirms this while overlapping with Maya's laughter, however, does not laugh along as she did in line 4. Thus, suggests that this laughter in line 11 is related to Maya, "treating delicate and potentially embarrassing displays of incompetence as laughable" (Wilkinson, 2007, p. 566). Furthermore, similar to the later months between Maya and Kei, Maya had to prompt support from Yanti in order to receive correction.

The difference in Maya and Yanti's orientation towards the interaction becomes clearer in the following months. Excerpts 49 and 50 are from their recording in November. Excerpt 49 was previously examined in Section 4.3.1 Excerpt 10, and is analyzed in more detail below. The segment displays the different interactional goals the interlocutors have, Yanti focusing on progressing the talk, while Maya focusing on learning.

<Excerpt 49: Maya Yanti November Swimsuits>

1		Maya:	they (0.5) take (0.8) nh,
2			(0.4) wo (.) <water> (0.3)
3	→		°water° (0.2) clothes?
4	→	Yanti:	↑MH::::: [°yeah°
5	→	Maya:	[wha wha
6	→		>how do you say<=
7		Yanti:	=ss swim swim
8		Maya:	ah SWIM? (0.5) swim °suit°?
9		Yanti:	swim swimsuits
10		Maya:	swimsuits [mh::
11		Yanti:	[yes

In line 3, after hesitation, repetition, and pauses, Maya projects a candidate word "water clothes" with a rising intonation. Yanti shows understanding with a strong backchanneling ("mh") and "yeah" (line 4). Although Yanti displayed that she had understood Maya's prior turn, Maya then pursues to find the exact word she is searching for by using "what" and "how do you say" (line 5-6). Yanti then starts to repair by providing the word "swim." Maya then completes this as "swimsuit" (line 8), then further repaired by Yanti as "swimsuits" (line 9). Thus making the word search a collaborative effort. However, the word

search side sequence would not have occurred if Maya had not explicitly initiated it through using “how do you say.” However, up to this point in the sequence (line 4), Yanti did not show any orientation towards searching for the more “accurate” word as Maya did. Therefore, Maya is displaying orientation towards learning while Yanti displays orientation towards progressing the talk, unless there is an explicit request for repair or support in searching the word Maya is looking for.

In the later months, Maya starts to align to Yanti’s orientation towards progressing the talk, rather than starting a word search side sequence. This was found only from their third recording in December and onwards. Excerpt 50 is from December and the two are talking about Yanti’s trip to Kyoto.

<Excerpt 50: Maya Yanti December Transportation fee>

```
1      Yanti:   Kyoto is so::: expensi::ve [everything like
2      Maya:                               [ah::::
3      Yanti:   da foods en (.)°mm°
4   →  Maya:    (0.5) nara nani (.) traffic (0.5) pay
                      “then what”
5      Yanti:   [yah::::::
6   →  Maya:    [>nani< (.) bus
                  “what”
7      Yanti:   yeah (.) that’s too
```

In line 4, Maya starts to give and example of other items that are expensive in Kyoto, that is the transportation fee. However, Maya pauses, uses “*nara*” (then) and “*nani*” (what) and shows that she is searching for a word. Then says “traffic pay” with a pause in between, suggesting lack of confidence with the candidate word. Unlike Kei and similar to the previous excerpt, Yanti displays understanding and acceptance with “yah” (line 5). Overlapping with this, Maya retries with “*nani*” (what) but only says “bus” (line 6), which is again confirmed by Yanti (line 7).

This sequence may seem similar to the earlier cases between Maya and Kei, where Maya is relying on Kei’s linguistic knowledge and scaffolding (e.g., Excerpt 43, Section

5.5.3). However, what is different here is that Maya is not orienting to learning by pursuing the conventional English expression. Instead, she attempts to secure Yanti's understanding by repeating the same concept using different expressions in the following turn ("traffic pay" and "bus").

Maya was found using this new strategy in other months following November. Below is a similar example from January 2011. Yanti is talking about applying for a residential assistantship for the university dormitory and how a friend of hers is also applying for that position.

<Excerpt 51: Maya Yanti January Competition>

```
1      Maya:    (0.5) nmo (1.2) ↑your friend is:
2               (1.4) YOUR ribal hehe[hhehehehee
3      Yanti:                       [hehehhehe
4      Maya:    ↑FREn is da (0.5) ↓mhh (0.3) nani
                                                 "what"
5   →           (0.4) con (0.5) competition?
6               (0.5)
7   →  Maya:    competitiona::
8      Yanti:   Mhhh
9      Maya:    ↓mhh
10     Yanti:   yeah:
11  →  Maya:    good competition your [friend
12     Yanti:                        [hehehh
13     Maya:    Mhh
14     Yanti:   yeah (.) en (.)↑actually (.) he's
15              my (.) leader in (.) kyoto peace tour
```

The segment starts with Maya stating "your friend is," but then pauses for 1.4 seconds, which is relatively long for a mid-turn pause. This suggests Maya is searching for a word or the next word to follow is a trouble source. Maya then emphasizes "your" and completes her turn with "rival" and laughter (line 2). Yanti joins the laughter (Jefferson, 1979), displaying alignment with Maya's comment (line 3).

Maya then continues to repeat the same idea however but in a different way, that is, "friend is competition." This could be due to Maya's self-awareness of her pronunciation of "rival" being non-native like, or searching for a word that better describes Yanti having a

better chance than her friend. Although Maya attempts to present an alternative expression, she displays a struggle in eliciting the word, "competition" through pauses, cut-off, and word search indicator "*nani*" (what) (line 4-5). Furthermore, the "competition" is accompanied with a rising intonation and a pause, leaving space for Yanti to initiate a repair or conduct an other-repair. However, Yanti does not respond immediately, and Maya displays a self-repair "competitioner" (line 7). Yanti then shows acknowledgement through backchanneling (line 8) and "yeah" (line 10). Maya further repeats the same idea in line 11, this time as, "good competition your friend." Which is when Yanti responds with laughter, and displays agreement or alignment with Maya's comment (Jefferson, Sacks, & Schegloff, 1987). Only then, Maya shows a completion of her utterance, and Yanti can continue with her story telling.

This sequence is similar to previously discussed segments in which Maya displays trouble searching for a word and attempts to resolve it. However, compared to Excerpts 48 and 49, Maya does not initiate a word search side sequence. Instead, she attempts to secure intersubjectivity through repeating the similar ideas in different expressions.

This is similar to what Kaur (2009) calls "pre-emptive" repairs found in ELF talk where the speaker would assume the lack of shared knowledge, thus re-phrase or repair when the previous turn was responded minimally with silence or backchanneling. In the excerpts above, Yanti is backchanneling, which can be understood as a confirmation. However, in Japanese conversations, listeners are known to backchannel even when they do not understand to avoid humiliation (Cutrone, 2005, 2013). Therefore, by Maya repeating the similar concept in different expressions through multiple turns, it could be seen as Maya attempting to secure understanding regardless of her non-native like pronunciation ("ribal") or ungrammatical word use ("competitioner").

Maya did not have to develop such strategy with Kei who would immediately provide

the word or repair Maya's pronunciation, since that would demonstrate Kei's understanding of Maya's utterances. However, with Yanti, who would not repair Maya unless explicitly asked, Maya started to align with Yanti's orientation of avoiding word search side sequences and focus more on progressing the talk while securing intersubjectivity.

In other words, it could be argued that Maya's orientation to the talk as a learning opportunity has changed. At the same time, Maya developed a way of securing intersubjectivity through additional turns and used different expressions for the same idea even after backchannels from Yanti. Therefore, not only did Maya's interlocutor change, her method of engagement with the interlocutors changed during the word search sequences.

To summarize, Maya and her partners demonstrated the following three changes: (a) less reliance on the partner's linguistic resources to resolve self-initiated word searches, (b) partner's change in orientation towards the word search sequences, and (c) emergence of a new strategy to secure intersubjectivity (pre-emptive repair). Similar to Ami, Maya demonstrated adaptation to the interactional environment of Yanti in securing intersubjectivity through the use of extra turns when there was no explicit repair. Furthermore, through the use of a more effective candidate solutions and change in Kei's orientation to the interaction, Maya also started to display her interactional identity as a "English language user" rather than an "English language learner" and thus closing the gap of epistemic stance in terms of the English language knowledge.

Ami and Maya started their recordings with lower-intermediate level English language proficiency as shown in Section 5.2. Through the rigorously detailed analysis, there were changes observed in their interactions and orientations during their word search sequences. One of the changes was the emergence of L2 speaker's interactional strategies such as the new use of prosody-marked candidate solutions and additional turns to secure

intersubjectivity. Another was the social change, in other words, the change in the interlocutors' orientation to the word search sequences and providing treating the participants as a more autonomous English language "user" rather than and English language "learner."

In the following two sections, I analyze the two participants who started with relatively higher English language proficiency, Yoko and Tomoko.

5.6. Yoko's Changes of Word Search Sequences

Yoko and Shitora were fixed partners for the whole duration of the recording, except for October. The two shared a room with a sliding door that would separate their rooms. Therefore, although not recorded, it is imaginable that Yoko and Shitora interacted with each other on daily basis. Furthermore, since Yoko was placed into the "Intermediate English" level of the university English language courses, she only had one semester of English language instruction at the university. From the second semester (starting from October) and onwards, Yoko enrolled in Thai language classes. There were no substantial changes in Yoko's frequency of word search sequences or resolving methods in English. Moreover, there was little change in the orientation of the partner towards the interaction. The changes that were observed regarding Yoko's word search sequences include: (a) method of initiating word searches, (b) knowledge of her partner's culture, and (c) the developing relationship with her partner. These will be described in the subsequent sections.

5.6.1. Yoko's overall frequency of word searches

Compared to Ami and Maya, Yoko used relatively fewer word search sequences in her recordings, as a result, overall low frequency of candidate solutions. With her fixed partner Shitora, Yoko used only a few word search sequences, and very little prosody-marked candidate solutions as well.

As displayed in Figure 6.26, Yoko used on average of 4.75 word search sequences per

month with Shitora, and relatively the same amount throughout their eight recordings (no recording was done in October). In addition, prosody-marked candidate solutions were not used in the later months of the recordings. Furthermore, possibly due to the overall low frequency of word search sequences, there was little change found in the candidate solutions used.

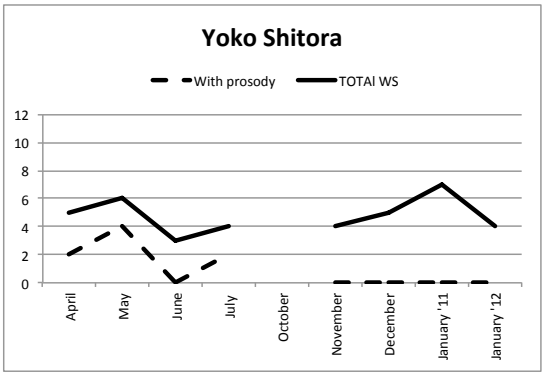


Figure 6.26. Yoko's Word Search Sequences with Shitora

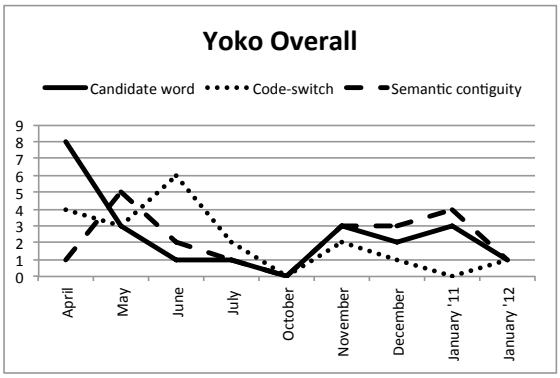


Figure 6.27. Overall recovery strategies

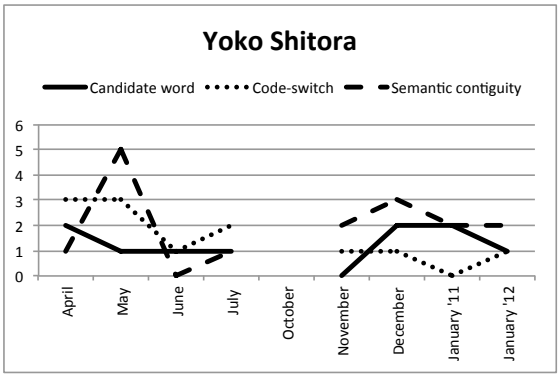


Figure 6.28. Candidate solutions with Shitora

5.6.2. Lack of change in partner's orientation

Unlike Ami and Maya, little change was found with how Yoko's fixed partner oriented

to Yoko's word searches also. Shitora, Yoko's fixed partner from Uzbekistan, frequently used forward oriented repairs in order to display her understanding of the word Yoko is searching for. Excerpt 52 is the second recording between Yoko and Shitora in May. Yoko is explaining her family trips during summer vacations. This is an example where Shitora displays her understanding of Yoko's word search, thus engaging in progressing the conversation.

<Excerpt 52: Yoko Shitora May Best Days>

```
1      Shitora:   that's good (1.0) beside you:
2                 don't have so many (0.8)
3                 opportunities to be with your family
4                 (0.3)
5      Yoko:      [mm:
6      Shitora:   [very often (.) [you are he:re
7      Yoko:                      [mm:
8      Shitora:   and your family [is in Kobehh
9      Yoko:                      [mmh:::
10                yeah
11     Shitora:   yes=
12 →   Yoko:      =very (0.7) mm: (0.7) very:
13 →               (1.3)
14 →   Shitora:   one of the best days
15     Yoko:      ↑yeahh=
16     Shitora:   =aha[ha ha ha .hh::
17     Yoko:          [yaha ha ha
```

In line 12, Yoko displays difficulty locating the word through repetition of "very" and multiple extended pauses. After a long 1.3 second pause, Shitora responds to Yoko's difficulty and displays her understanding ("one of the best days") in line 14. This is similar to what Kurhila (2006) calls "forward looking candidate understanding" where the L1 speaker responds to difficulty displayed by the L2 speaker, and as a result speeds up the conversation. Yoko then confirms this in the following turn. Unlike the interactions between Ami and Hang, and Maya and Kei or Yanti, the "forward looking candidate understanding" (Kurhila, 2006) was a common interactional behavior by Shitora as a response to Yoko's difficulty searching for a word.

Excerpt 53 is a similar case in November where Shitora displays her candidate understanding in completing Yoko's word search. Yoko is explaining the personnel changes in her volunteering club, and how she now has more responsibilities because of it.

<Excerpt 53: Yoko Shitora November Leader>

```
1      Yoko:      i:n the: spring semester? (0.7) ma
2                 (.) I: hav- >I had< senpai?
                                      "senior"
3                 bu' (.) the senpai
                              "senior"
4                 (3.8)((switch gesture))
5      Yoko:      the senpai (0.4) >like< mm: (.) the::
                      "senior"
6                 nanikana, (1.0) da: (0.5) mm:: ↑POst
                  "what is it"
7                 is [changed so=
                     [((switch gesture))
8      Shitora:   =↑ah::
9   →  Yoko:      my senpai is now (0.7) da (0.3)
                     "senior"
10  →  Shitora:   leader?
11  →  Yoko:      leader of
12                (1.3) ((circle gesture))
13  →  Shitora:   another department.
14  →  Yoko:      no:. leader of (.) da Prengo
15     Shitora:   ↑ah:: >°leader of da Prengo°<
```



Figure 6.29. Line 4 (3.8)



Figure 6.30. Line 4 (3.8)



Figure 6.31. Line 7 Changed



Figure 6.32. Line 12 (1.3)

In line 4, Yoko stops mid turn and pauses for an extended time while using a gesture, suggesting that she is searching for a word (Figure 6.29-6.30). Yoko restarts, but again in line 6, Yoko uses the Japanese word search indicator phrase "*nanikana"* (what is it) and pauses to display that the searching of a word is continuing. Shitora does not respond, and Yoko

completes the word search alone with “post is changed” accompanied with a switching gesture (Figure 6.31) smaller but similar to the one used previously in line 4. This suggests that she was able to find the word that she was searching for. However, in line 9, when Yoko again shows difficulty searching for a word through multiple pauses, this time, Shitora displays her candidate understanding “leader” with a rising intonation. Yoko confirms this understanding through repetition (line 11). When Yoko does not complete her sentence, and uses a circular gesture (Figure 6.32) while maintaining gaze with Shitora. Shitora again displays her candidate understanding “another department” with a slight rising intonation. This time, however, Yoko rejects Shitora’s suggestion with a clear “no” and completes her prior sentence “leader of the Prengo” (Prengo is the club name) (line 14).

Considering Yoko’s circular gesture during line 12 (Figure 6.32), it can be assumed that she was looking for a word such as “the whole group” or “everyone.” However, with the incorrect candidate understanding suggested by Shitora, Yoko was able to self-repair with an alternative word, the club name.

Shitora, once knowing that Yoko’s main ideas was regarding changes of posts, was not shy in presenting her candidate understanding repeatedly, in progressing the talk. Shitora’s actions display her attentiveness to the talk. At the same time, it suggests Shitora’s preference of progressing the conversation. Furthermore, despite the large moving gestures used by Yoko, it is not helping Shitora to guess the word Yoko is searching for.

A similar situation continues even in December, their sixth recording together, nine months after Yoko entered the university. In Excerpt 54, Yoko and Shitora are discussing the education system in their countries. Prior to this segment, Shitora introduced how schools in larger cities in Uzbekistan have better teachers and better education due to the higher salaries.

<Excerpt 54: Yoko Shitora December Can Receive Education>

```
1      Yoko:      ↑Ohita, is not (2.7) high level?
2                 [but
3      Shitora:   [mm hm
4   →  Yoko:      ah:: (1.4) there're (0.7) >I mean<
5   →             ah:: (0.3) >°nandakke°< (1.5)
                                  "what was it"
6   →             what should I say (0.3) AH:: (2.3)
7                 ↑everyone
8      Shitora:   mhh= ((nod))
9      Yoko:      =can
10                (3.7)((small fan))
11  →  Yoko:      [can=
                  [((big fan))
12  →  Shitora:   =>can receive education,<
13     Yoko:      yeah can receive education?
14                a:nd (0.5)↑everyone
15                [(3.3) is about
                  [((horizontal))
16                [(3.0)
                  [((vertical))
17     Yoko:      ss:same
18                (0.7)
19     Shitora:   ↑mmh mhhm::
```



Figure 6.33. Line 10 (3.7)



Figure 6.34. Line 11 "can"



Figure 6.35. Line 15 "is about "



Figure 6.36. Line 16 (3.0)

In line 4-5, Yoko displays hesitation, pauses and a restart using "I mean," and word search initiations in Japanese ("*nandakke*") and English ("what should I say"). Yoko tries continuing however, shows difficulty (line 7, 9). Shitora indicates that she is listening through

backchanneling and a nod, however, does not display any candidate understandings at this point. Yoko uses gestures of fanning or accepting by moving her hand towards her (Figure 6.33) then a larger arm movement outward (Figure 6.34). There is no mutual gaze during Yoko's gesture and silence, but Shitora in line 12 displays her candidate understanding of "can receive education" with a slight rising intonation.

Yoko repeats Shitora and accepts the candidate understanding, and attempts to add more information "and everyone." However, she again demonstrates difficulty through the long pauses and multiple gestures (Figure 6.35-6.36). Not only until line 17 is Yoko able to articulate the sought out word, "same."

Although lines 14-16 are similar to lines 7-11 in that Yoko displays difficulty locating a word and uses gesture with no mutual gaze, in lines 14-16, Shitora does not present a candidate understanding. This suggests that Shitora was able to guess "receive education" not because of attention to Yoko's gestures, but possibly because of the grammar ("not high level but," "everyone can") and the content of the prior talk ("education"). Therefore, although I have shown that gestures were frequently used during resolving word searches, gestures do not necessarily function as a meaning-providing device by the speaker to the listener in prompting other-repair during word searches. As Iverson & Goldin-Meadow (1998) has suggested, gestures seem to support L2 production.

Furthermore, these excerpts have demonstrated that forward looking candidate understandings are not only a L1 speaker action towards L2 speakers' word searches, but are also done by L2 speaker peers in ELF interactions. In addition, the interlocutor, Yoko in this case, can then accept or reject the candidate understanding.

5.6.3. Emergence of word search initiations in Thai

As shown in Excerpt 53 and 54, Yoko is searching for relatively simple words such as

"leader" and "same." One reason for the lack of change in Yoko's word search sequences and this trouble locating relatively simple and high frequency words could be due to her starting to study Thai from the second semester, October.

This can be seen from the interactions between Yoko and Jacy, a Thai student. The two conducted their recordings in October, November, and February 2011. Yoko was found code-switching between English, Japanese, and Thai in these recordings. And in December, Yoko used Thai in initiating an English word search, as displayed in Excerpt 55 below. Yoko and Jacy are talking about a friend who got a good deal buying a new digital camera.

<Excerpt 55: Yoko Jacy December Shopper>

```
1      Yoko:    Naba:n is good (0.5) shoppin' (0.8)
2   →           good. (.) °arai na:°,
                          "what's that again"
3               (1.3)((Yoko looks away))
4   →  Jacy:    shopper
5   →  Yoko:    (0.6) good [shopper hh
                           [((gaze at Jacy))
6      Jacy:    mhh hhu hh=
7      Yoko:    =>I donno<=
8      Jacy:    =he he he[hhh
9      Yoko:             [yah
10     Jacy:    mm=
11     Yoko:    =maybe:: (0.3) did (0.6) good (0.7)
12              shoppin'
13              (1.4)
14     Jacy:    so:::
```

In line 2, after a pause and repeating of "good" Yoko uses "*arai na*" an equivalent of "what is it" or "what's that again" in the Thai language. Yoko looks away displaying an ongoing solitary search, when Jacy presents a candidate understanding of "shopper" (line 4).

Although Yoko had been identified using Thai with Jacy since their first recording together in October, Yoko would often initiate a word search in Japanese or English. This was the first time that Yoko used Thai in indication an ongoing word search.

Switching languages from English to Thai only to indicate that there is word search going on, suggests two things; first, Yoko and Jacy are becoming more comfortable

interacting in Thai, and second, although there is no mutual gaze in line 3, Yoko is requesting Jacy to join the search for the word.

Although code-switching between English and Japanese were frequently found in other participants, Yoko was the only participant who started conversing and doing word searches in a third language during the video recording. This again is a feature of ELF interactions and the ELF environment where the language choice is not limited to one or two, but many, as long as it is a shared language resource. Therefore, the data empirically support Jenkins' (2015) argument of ELF interactions potentially being multilingual.

5.6.4. Yoko's overall orientation to the conversations

Despite the lack of change in Yoko's use of word search candidate solutions, the partner's orientation towards Yoko's word search sequences, and even Yoko remembering relatively simple English words, Yoko did present some changes through her interaction. That is, learning her partner's culture.

Excerpt 56 is from Yoko's first recording with Shitora in April, right after they moved into the dormitory and started living next to each other.

<Excerpt 56: Yoko Shitora April Dried Fruits>

```
1      Shitora:   a:nd different kind of (.) fru:its?
2      Yoko:      mmh:
3   →  Shitora:   a↑hah (0.4) a:nd >fruit< dried fruits
4      Yoko:      mmh: mmh: mmh:
5                 (1.3)
6      Shitora:   and that's all (too thin) (.)
7                 [ha ha ha .hh
8      Yoko:      [↑ha ha hu ha
9                 (1.3)
10     Yoko:      don'tyou: eat (0.7) ah: (3.0) ↑not
11  →              (0.4) not dri:ed fruits?
12                (1.0)
13  →  Shitora:   no either are (.) a ↑lot of ahahh
14                (0.4) fruits.
15     Yoko:      mhh
16     Shitora:   in Uzbekistan (0.5).hh a:nd
17                its not so expensive $like here(h)$
18                $in$ [$Japan$ hh
19     Yoko:           [↑haha hh
```

In this segment, Shitora is introducing the food culture in Uzbekistan, when she brings

up the topic of fruits. She explains that there are different kinds of fruits (line 1), including dried fruits (line 3). Yoko picks up on this and requests for clarification if Uzbeks eat fresh fruits (line 10-11). Shitora responds as “no either are a lot of fruits” (line 13). The meaning of this turn is unclear from an outsider (etic) perspective, but Yoko displays understanding through backchanneling and does not request for further repair (line 15). Shitora then continues to explain the cheapness of the fruits in Uzbekistan compared to Japan.

There were not reference to fruits or dried fruits between their talk afterwards until three months later, their fourth recording together in July. Prior to this segment, Shitora was explaining how humid it is in Japan during the summer compared to Uzbekistan, where it is hotter but dry. This is when Yoko then jokes about the climate in Uzbekistan as presented in Excerpt 57 below.

<Excerpt 57: Yoko Shitora July Dried Fruits>

```
1     Yoko:      >maybe< (0.5) i i:: (.) i in: (0.9)
2                i: if you: (.) don’t use(.) air
3                conditioner, (.)in Uzbekistan. (.)
4  →             you: will be (.) dry: (0.4) dried
5  →             (0.5) dried fruits?
6                (1.2)
7     Shitora:   dry fruits?=
8     Yoko:      =mhhuhu no:: .hh hhhh=
9     Shitora:   =[hahaha  HAHHHAHH .hh ha ha]
10    Yoko:       [>just kid-< $just kidding$]
11    Shitora:   Ha.hh:
12    Yoko:      [you’ll be]
13    Shitora:   [haha hhah] AHAHAHHA=
14    Yoko:      =.hh $you$:
15    Shitora:   .huhuhuu hh  (.) ma::y↑be .hh=
16    Yoko:      =haha hahh .hh::
17    Shitora:   [$ma(h)ybe(h)$ ha[haaha haha
18    Yoko:                      [hah hhh  hhh
19    Shitora:   but it’s impossible.
20    Yoko:      ↑HuHHhh hh:[aha ha ha ha ha ha
21    Shitora:             [↑not to use (.)$air$
22               $conditioner$ i- if it is fourt-
23               forty degree:s=
24    Yoko:      =ah:::=
25    Shitora:   =or forty five
26    Yoko:      $↑fo:rty$? hahhh
27 →  Shitora:   Ye:s then you will die just there
28    Yoko:      [$die$ >yah yah yah<
29 →  Shitora:   [you’ll really (.) you’ll ↑really
30 →             become dry [frui:ts right?
31    Yoko:                 [mmhm:: hehhhehaha
```

```
32     Shitora:   [>dried fruits<
33     Yoko:      [hehhehh .hhhhehhh hh[hhh
34 →   Shitora:                        [not only ↑dry
35 →              [bu' they're black. hahaha
36     Yoko:      [hhuhuhhh hu .hh hhuhhuhu
```

In line 1-3, Yoko presents a hypothetical situation "if you don't use air conditioner" and then jokes, "you will be dried fruits" with a rising intonation. Shitora does not respond right away (line 6) and then initiates a repair by repeating "dry fruits" (line 7).

Yoko with no gap starts laughing and explains that she is "just kidding" (line 8, 10). Once Shitora figures out that it is a joke from Yoko's laughter, she joins the laughter and aligns herself to the joke (e.g., "maybe" in line 17). Shitora then upgrades the joke that if there is no air conditioner, "you will die" (line 27), "you'll really become dry fruits" (line 29-30), and even "black" (line 25).

There was no reference to "dried fruits" in the May and June recordings. However, it is clear that Yoko has referenced "dried fruits" as explaining Uzbekistan's climate due to her prior knowledge of Uzbekistan food culture, and possibly the previous conversation she had with Shitora. Furthermore, the July interaction demonstrates Yoko's closer relationship with Shitora through the initiation of a cultural joke and alignment from Shitora.

To summarize Yoko's change of word search sequences, her English word search candidate solutions displayed little change. Furthermore, there was little change in the partner's orientation towards Yoko's word search sequences. Therefore, it could be said that there was little development in Yoko's word search sequences.

However, Yoko showed change in (a) her expansion in the language variety of using Thai in initiating word searches, and displayed her newly emerging competence in a third shared language with her partner. Thus indexing that Yoko adapted to the interlocutor's language and the interactional environment.

Despite the lack of change in her individual English language use, Yoko did display,

(b) change in her knowledge of her partner's culture and (c) the development of a closer relationship with her partner where joking about their culture is acceptable. Therefore, although there was no clear "language development" identified, there certainly was a development in "knowledge" and the "interactional environment" as reflected in the interaction.

5.7. Tomoko's Changes of Word Search Sequences

In this section, I will analyze the fourth participant, Tomoko. Similar to Yoko, Tomoko was placed into the "Intermediate English" level university English language course for one semester. Therefore, in the second semester, she did not enroll in any English language class, and it is unclear if she enrolled in any additional language classes as Yoko did. Tomoko had two fixed partners, Anh and Pham, both from Vietnam. However, Tomoko conducted more recordings with Anh, with whom she shared her room.

Through the analysis, there were no identifiable changes found in the ways candidate solutions were conducted by Tomoko. Instead, changes were found in the partner's orientation towards the word search sequences, similar to Hang and Kei. Tomoko displayed a change that was different from the other three participants, that is, showing more reliance on the partner during word search sequences. In addition, although not a longitudinal change, Tomoko responded differently to other-corrections depending on the interlocutor.

5.7.1. Tomoko's overall frequency of word searches

Overall, Tomoko used minimum word search sequences throughout the recordings. As displayed in Figure 6.37, Tomoko used very few word searches and resolving with prosody as well. Furthermore, no clear changes in the use of word search candidate solutions could be identified, nor were there clearly identified changes with the partner's orientations to Tomoko's word searches.

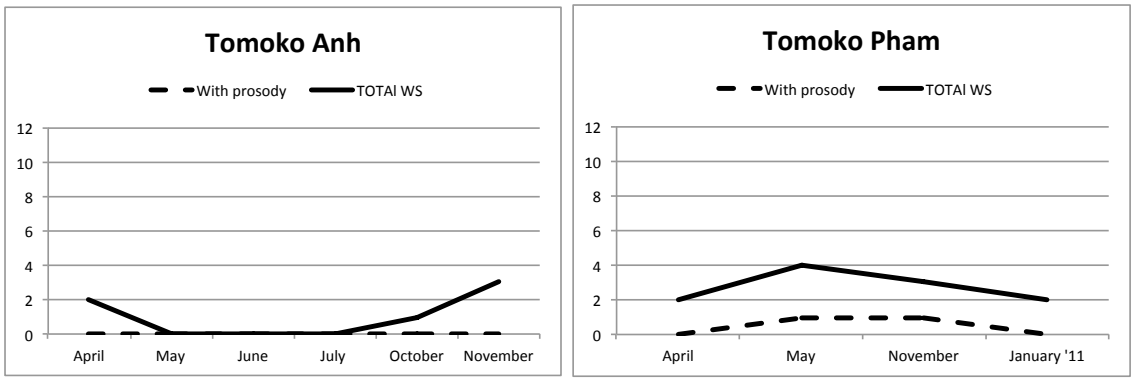


Figure 6.37. Tomoko's frequency of word search sequences

5.7.2. Responses to prosody-marked resolutions

Despite the few changes of Tomoko's overall word search frequency, there was a change identified in terms of other-orientation to Tomoko's self-initiated word searches. In other words, similar to Ami and Maya's partners such as Hang and Kei, Pham's reaction towards Tomoko's word search sequences changed, especially towards Tomoko's prosody-marked candidate solutions.

The following excerpt is the first recording make between Tomoko and Pham, right after Tomoko entered the university dormitory. Tomoko is sharing her future dream of living in Austria.

<Excerpt 58: Tomoko Pham April Austria>

```
1     Tomoko:   someday I wanna li::v in (.) Vienna?
2               (0.4)
3     Tomoko:   >I mean< (.) Austrilia
4     Pham:     ↑mh huh. (0.8) Austria? right.=
5     Tomoko:   =Austrilia (.) not Austa↑railia
6     Pham:     (0.3) yeah Austria.
7               (0.6)
8     Tomoko:   Aus[tria.
9     Pham:        [°yeah°
10    Tomoko:   (0.4) °some° (0.4) ↑music city
11    Pham:     ↑mh huh.
```

In line 1, Tomoko elongates the vowel sound in "live," with a slight pause afterwards suggesting that she is thinking of the word that follows. She then completes her turn with a prosody-marked "Vienna." Pham does not respond right away (line 2). Tomoko then initiates

a redo with “I mean” and completes her turn with “Austrilia,” a pronunciation which could be perceived as a combination of Austria and Australia (line 3). Pham responds to this with backchanneling and then a candidate understanding of “Austria” with a rising intonation (line 4). Pham does not wait for Tomoko’s response to the candidate understanding, and displays her understanding with “right” (line 4). From this action, it could be interpreted that Pham’s candidate understanding (“Austria”) was not meant to repair Tomoko’s previous turn, but to display her understanding of it.

Nevertheless, Tomoko responds to Pham’s utterance as a possible other-initiated repair by repeating “Austrilia” and comparing it to “Austarailia” (written here as pronounced by Tomoko) (line 5). By repeating her original pronunciation, and then contrasting it to a different word, Tomoko is displaying her confidence of the word choice she had made, at the same time, resisting the possible correction by Pham.

Pham then responds to this by confirming her understanding, at the same time, presenting her version of the word “Austria” again (line 6). After a slight silence (line 7), Tomoko accepts this as a repair and repeats “Austria” similar to Pham’s version of the pronunciation (line 8). By orienting to and adjusting one’s pronunciation, this mirrors what Brouwer (2004) calls “doing pronunciation” where L1 speakers would repair L2 speaker’s pronunciation.

Tomoko continues and attempts to secure mutual understanding through adding information “music city” (line 10). This is similar to what Maya started to do at the end of her recording sessions of adding information in attempting to secure intersubjectivity (see Section 5.5.4, Excerpt 50 and 51). Pham then confirms this through backchanneling (line 11). Although very subtle, this sequence can be seen as Tomoko initially resisting Pham’s correction, but then accepting it.

A similar case was identified in the following month, as shown below in Excerpt 59. This was the second recording between Tomoko and Pham. Tomoko is explaining the courses she is currently taking. This excerpt was previously analyzed in Section 4.4.3 Excerpt 32.

<Excerpt 59: Tomoko Pham May Introduction>

```
1      Tomoko:   an I ha:ve (2.2) AH:ah
2                (1.0) ((Tomoko claps))
3   →  Tomoko:   the intransi(.)i'o:f (.)eei pee(.)°yuu°?=
4   →  Pham:     =$ohohoho an introduction$
5                [$of eei pee yoo: ((APU)) (.)right?$
6   →  Tomoko:   [>$introduction.(.) sorry$<
7                >$introduction$<
8      Pham:     .hhh [$oh ai see$
9      Tomoko:         [>$ya: introduction of$<
10               (.) DAT was (.) prii: (.) good
```

As previously analyzed, Tomoko displays uncertainty and a possible word search through pauses and hedges, followed by a rising intonation (line 3). Pham shows understanding and shares her candidate understanding ("introduction") accompanied with a smiley voice and a tag-question (line 4-5). By doing so, Pham reforms the other-correction into a less face-threatening display of candidate understanding. Tomoko, however, self-repairs as Pham's previous turn with "introduction" with a fast paced smiley voice and a "sorry" (line 6). Tomoko does this while overlapping with Pham and then quickly repeats "introduction" again with a smiley voice (line 7).

Again, although aligning herself to Pham's indication of a possible mispronunciation of a word, unlike in Maya's case shown in Excerpt 13 (Section 5.3.2) with "lace," Tomoko displays a negative reaction to the correction. In Excerpt 59, Tomoko self-repairs quickly with a smiley voice, suggesting a display of embarrassment of her mistake (Wilkinson, 2007). At the same time, Tomoko states "sorry" to reformulate the repair as a simple "mistake" rather than "non-knowing." Thus, still maintaining her position as a "knower" of the word.

However, in their third recording together in November, six months after the last recording, Tomoko displayed a different orientation towards Pham and her English

pronunciation. This is displayed in Excerpt 60. Pham indicated that she would like to visit Okinawa, a pacific island of Japan, when Tomoko started to share her experience visiting there.

<Excerpt 60: Tomoko Pham November Swam>

```
1       Tomoko:   a::nd (2.1) the- (.) the ↑first time
2                 (1.2) was (1.2) with my: family?
3       Pham:     (0.3) mh ↑hu:h=
4       Tomoko:   =when I was ah: (0.4) fourtee:n? (.)
5                 when I was(.) >a junior↑high school< student
6       Pham:     mh hu:h
7   →   Tomoko:   (0.7) ↑A:nd (.) I [swom?
                                    [((waves hand))
8   →             (1.4) ((Tomoko waves hand / Pham nods))
9   →   Tomoko:   °swum°? ((waves hand))
10      Pham:     ya:
11                (1.7) ((Tomoko looks away))
12      Tomoko:   °hmm° (.) de- ocean was ↑really beautiful.
```



Figure 6.38. Line 7 Swom



Figure 6.39. Line 8 (1.4)



Figure 6.40. Line 9 Swum



Figure 6.41. Line 11 (1.7)

In line 7, Tomoko starts a new sentence “and I swum” with a rising intonation accompanies with a gesture that could be interpreted as her doing a small breast stroke (Figure 6.38-6.40). Tomoko continues the breast stroke gesture and smiles while Pham nods and displays listening or understanding (line 8). However, Tomoko does not continue with her story telling, but repeats “swum” again, this time with a slightly stronger “u” sound while

continuing the swimming gesture and keeping eye contact with Pham (line 9). When Pham verbally responds "ya" (line 10), Tomoko disengages eye contact from Pham and looks away shows thinking while pausing (line 11, Figure 6.41), and then continues with her story.

Tomoko's action in line 7-9 is similar to Ami and Hang in Excerpt 36 ("gap") and Maya and Kei's case in Excerpt 45 ("represent"), where Maya and Ami are seeking other correction or confirmation while their partners orient to progressing the talk. Therefore, when comparing the three sequences (Excerpts 58, 59, and 60) of Tomoko and Pham regarding their orientation towards English pronunciation, it could be understood that Tomoko is displaying less confidence in her word choice and more reliance on Pham's English language expertise.

Tomoko here can be interpreted as displaying less confidence, and thus digressing in terms of presenting herself as a competent user of the English language. This is different from the previous participants analyzed in this chapter, especially with Ami and Maya displaying increasing confidence in their word choices during word search sequences with their fixed partners.

In developmental studies of second languages, there have been few cases that have indicated digression of competence or confidence. Nevertheless, as attrition research has shown, people do forget words or grammar (Cohen, 1986; de Bot & Weltens, 1995; Weltens & Cohen, 1989). As displayed here in this case, confidence and independence of one's word choice in interaction, similarly, can display signs of digression and increase in other reliance.

It is noteworthy that during the first interview, Tomoko displayed confidence in her English proficiency and in particular her English pronunciation. She described how she practiced repeating lines from movies and looked herself in the mirror to see her mouth movements while pronouncing English words. However, in and through the ELF interactions over time, Tomoko displayed less confidence in her pronunciation.

5.7.3. Lack of orientation as a "learning opportunity"

Although no direct or clear connections can be made, the lack of change in Tomoko's word search strategies could be associated with the lack of orientation to the conversations overall as a learning opportunity.

There were very few word searches between Tomoko and Anh. However, there were cases where Anh would correct Tomoko's word choice or pronunciation. In these cases, Tomoko would display a negative reaction to the other-correction. An example is displayed below in Excerpt 61. This was the first recording made between the Tomoko and Anh in April, and the two are discussing the courses they are taking

<Excerpt 61: Tomoko Anh April Fundamental>

```
1      Tomoko:   okay ah:::m (.) >are you in< (0.5)
2                fundamental Japane:se?
3                (.) or intermediate,
4                (0.8)
5      Anh:      first (.) I: (.) s- (.) sta:'ed
6                (0.8) °em:° (.) fou'dation. [(0.4) mhh
7      Tomoko:                               [((nod))
8      Anh:      Japanese foundation [class
9      Tomoko:                      [fundam (.)
10               fundation sorry=
11 →   Anh:      =no fou'dation
12 →   Tomoko:   (0.5) fundation=
13 →   Anh:      =>iie< fun jya nai (.) <fou'dation>
                   "no    it's not 'fun'"
14 →   Tomoko:   (0.4) yah:? ((nod))
15     Anh:      (0.7)<fundamental> (.) I think it's just
16               for (0.7) Engliss cla'(.)fundamental
17               Engliss (.) fou'dation Engliss (.) then
18               (.) chukyu  Engliss >something like that<
                    "intermediate"
19               (0.5) >intermediate Engliss I mean< ya?
20               (0.5)
21 →   Tomoko:   [((Tomoko looks away))
22     Anh:      [its for e- Japanese (.)>ah<
23               its for Engliss cla'(0.4) Japanese cla'
24               ['ave a (.) difference
25 →   Tomoko:   [((looks at nails))
26               (1.1)
27     Anh:      ya: (.) differen' categorize
```



Figure 6.42. Line 21 Looks away



Figure 6.43. Line 25 Looks at nails

Tomoko asks Anh is she is in "fundamental Japanese" class or not (line 1-2), and Anh responds that she started in "foundation" Japanese class (line 5-8). Tomoko then recognizes the difference in the sound of the course name and self-repairs as "fundation" with a "sorry" (line 9-10). However, Anh responds to Tomoko quickly with a clear "no" and a correction which can be heard as "foudation" (line 11). Tomoko then presents her version of the pronunciation "fundation" similar to line 10 again (line 12). Anh however rejects this again, this time in Japanese "*iie fun ja nai*" (no, it's not "fun") and repeats her version of the pronunciation (line 13). Tomoko does not show alignment to Anh's repeated correction, and responds with a prosody-marked "yah" and nodding (line 14). This displays Tomoko's ambivalent position of questioning the accuracy of Anh's pronunciation or showing listening and letting Anh continue. Anh then continues to explain how the English program and the Japanese program have different words for explaining the entry-level class (i.e., fundamental and foundation).

During Anh's explanation, Tomoko displays a loss of interest through disengagement of eye contact (line 20, Figure 6.42), and then looking at her nails (line 24, Figure 6.43). There was no mutual agreement on the pronunciation or word choice of the course name, and Tomoko changed the topic regarding her English teacher once Anh finished her talk in line 27.

Therefore, although Tomoko could have oriented to this sequence as a learning

opportunity, she decided to opt out and disengage from the interaction. This could have been due to Anh's rather direct correction method or Anh having a less "native-like" English pronunciation. Nevertheless, Tomoko is displaying lack of interest and orientation to Anh's other-correction and its explanation. Tomoko's lack of orientation to Anh's correction and explanations or display of non-interest in Anh's talk were found in other recordings, suggesting that it was a common action taken by Tomoko towards Anh.

With other partners, however, Tomoko displayed a stronger alignment to an other-correction and a stronger orientation to learning. The example below is from a recording between Tomoko and Marina in October, seven months into the data collection. Tomoko is explaining the difference in appearance between Asian girls, in particular Japanese, Koreans, and Chinese.

<Excerpt 62: Tomoko Marina October Mature>

1		Tomoko:	Japane::se looks like(.) *kawaii?*
			"cute"
2		Marina:	*kawaii.*=
3			"cute"
4		Tomoko:	=a::nd Korean are
5			(0.4)
6		Marina:	is more
7			(0.4)
8		Tomoko:	*kirei*:. or
			"beautiful"
9			(1.5)
10		Tomoko:	adult
11			(0.4)
12	→	Marina:	adult? (0.3) [>mature<
13		Tomoko:	[( )children
14	→		yeah ma↑ture
15		Marina:	°ah°
16	→	Tomoko:	children (0.8) $mature$
17			.hh hh:: hh::
18		Marina:	>$children .hh hh: and mature$<

In line 8, Tomoko using Japanese describes, Koreans as "*kirei"* (beautiful) compared to the "*kawaii"* (cute) Japanese, and stops after saying "or." It is unclear if Tomoko was waiting for Marina's response of showing understanding as she did in line 2, or was searching for a word. In either case, after a relatively long pause of 1.5 seconds (line 9), Tomoko then

competes her turn with “adult” (line 10). Marina repeats this with a rising intonation, and then presents her understanding of “adult” as “mature” (line 12). Despite the fact that this was done overlapping with Tomoko’s utterance, Tomoko accepts Marina’s utterance as a correction and displays alignment through “yeah” and a repetition of “mature” (line 14). Tomoko repeats this again in line 16, to compare the Japanese girls (“children”) and Korean girls (“mature”). Although Marina’s correction of “adult” to “mature” was other-initiated and uninvited by Tomoko, Tomoko still accepted and displayed alignment to it.

This display of orientation to the other-correction is quite different from what Tomoko displayed in Excerpt 61 with Anh. This could be due to the fact that Tomoko did display trouble finding the word “adult” in Excerpt 62 while there was no searching displayed in Excerpt 61 with Anh. The difference could also be due to the fact that Anh is Vietnamese while Marina is an American (from Hawaii). Nevertheless, there is a clear difference in Tomoko’s orientation towards other correction between interlocutors, suggesting that the interlocutor is an important factor or attractor in determining one’s interactional performance. This is similar to studies which have shown speakers tailoring their greetings or requests depending on the social relationship with the interlocutor (e.g., Drew, 2013; Pillet-Shore, 2012).

Other cases were found when Tomoko was not orienting to the possible learning opportunity and not attempting to achieve mutual understanding with the interlocutor. Excerpt 63 is an example case of this where Tomoko is introducing the foods for the Japanese New Year, but not showing attempt in achieving a clear agreement on the object she is referring to.

<Excerpt 63: Tomoko Lee January Chestnut>

```
1  →  Tomoko:   a::nd (1.4) and [kuri?
                                 “chestnut”
                                 [((circle gesture))
2               (0.6)
3  →  Tomoko:   [ma↑ron?
                [((circle gesture))
```

```
4                (2.4)
5      Tomoko:   maro:n (.) [ha::s
6   →  Lee:                 [>yeah I donno.< (.) °that°
7                (0.5)
8      Lee:      [(               )
9   →  Tomoko:   [we (.) >we w'll< (.) >we'll be: able<
10               to:: rich
11               (1.0)
12     Lee:      [oh.
13  →  Tomoko:   [>we w'll< be able to be ↑rich
14               (1.0)
15     Lee:      it is kind of (bean)=
16  →  Tomoko:   =[marin?
17     Lee:       [beca- because of China: ((continues))
```



Figure 6.44. Line 1 "ku-"



Figure 6.45. Line 1 "-ri"



Figure 6.46. Line 4 "ma-"



Figure 6.47. Line 4 "-ron"

Tomoko in line 1 uses a pause and then a Japanese word "*kuri*" (chestnut) with a rising intonation. The projection of "*kuri*" was accompanied with a hand gesture describing the shape of the nut, although not in the accurate proportion (Figure 6.44-6.45). The use of the prosody and gesturing suggests that Tomoko was aware of the possibility that her partner Lee may not aware of the Japanese word "*kuri*."

Tomoko then presents an alternative in French, "*marron*" (chestnut), again with a rising intonation and a similar gesture (Figure 6.46-6.47). However, Lee does not respond to either words (line 4), and when Tomoko attempts to continue with her talk, he explicitly states that he does not know the object (line 5-6). Tomoko, however, does not respond to Lee's statement of non-understanding and continues with her explanation (line 9, 13). There is no pursuit by Tomoko in achieving or securing accurate mutual understanding through the use of multiple turns and various candidate solutions, unlike what other participants such as Maya did (e.g., Excerpt 41, Section 5.5.2).

Lee requests for clarification by asking if "it is a kind of bean" (line 15), and continues to explain a similar culture in China. Tomoko does not respond to Lee's question, but presents a different pronunciation "marin" (line 16). However, the conversation moves on and the two do not display a mutual understanding of the object Tomoko is referring to (i.e., chestnut).

This sequence could have been an opportunity for Tomoko to learn the English equivalent for "*kuri*" or "*marron*." Nevertheless, it was not utilized for the purpose, and the two participants displayed their orientation towards progressing the talk, and sharing their different culinary cultures.

Although Tomoko presented herself in the initial interview as a confident speaker with a "native like" pronunciation, a relatively high overall proficiency level as measured by the TOEFL, and fewer word search sequences overall, she was found digressing in terms of self-confidence and self-reliance during word searches, especially with pronunciation. This may be connected to Tomoko, unlike other participants in this research, displaying lack of orientation to word search sequences or lexical repair sequences as a learning opportunity. She also displayed different orientations towards other-corrections depending on the partner.

To summarize, in Tomoko's case, there were changes identified in (a) the partner's

orientation towards the word search sequences, and as a result displaying (b) Tomoko as being more reliant on the partner during word search sequences. In addition, although not a longitudinal change, (c) Tomoko exhibited different responses towards other-correction depending on the interlocutor during word search sequences. In other words, there was no "development" identified in terms of word search sequences in a positive direction. In contrast, there was change found in a negative direction of Tomoko positioning herself from an "English language user" to an "English language learner."

Although no clear correlation could be made between the lack of interest in the interaction as a learning opportunity and her increase of other reliance during word searches, it can be said that Tomoko did have multiple missed opportunities of language learning through the interactions. In addition, unlike Yoko, I was not able to find any cultural learning with the fixed partners either. This suggests that Tomoko may have oriented to the video recordings overall as a task to fulfill the researcher's request, rather than a joint interactive moment to exchange ideas or as a learning opportunity of any kind.

Thus, Tomoko's case suggests that "just talking" does not necessarily lead to "development," and a conscious orientation to the individual moments in talk as a learning opportunity may be crucial in leading to language or cultural development. This is similar to Hellermann and Doehlerb's (2010) study where they found different behaviors among the students despite the fact that they were assigned the same task by the teacher. They note, "learning potentials in task construction hinge on the participants' joint understanding of the task and on how they coordinate their mutual orientations to the task by means of a multitude of verbal and non-verbal resources" (Hellermann & Doehler, 2010, p. 42).

In other words, language development through interaction is a mutual and conscious action of utilizing "learning potentials" (Hellermann & Doehler, 2010), and how participants

orient to it may be influenced by their personal agendas, topic of the conversation, as well as their relationship with and how they perceive the interlocutor. Therefore in Tomoko's case, she may have had multiple missed learning potentials, thus not displaying any development in her word search sequences.

5.8. Chapter 5 Interim Summary

The first part of the chapter analyzed the changes in word search sequences of the four participants: first the frequency as a group, then individually from an emic perspective. From the analysis three major points were identified: individual differences, adaptation to the interlocutor by the participants, and changes of the partners.

One of the findings displayed large individual differences within the changes in word search sequences. For instance, while Ami's over all frequency of word searches decreased, Maya, Yoko, and Tomoko's did not change. Moreover, Maya became less reliant on the partner's linguistic resources, but Tomoko became more reliant.

The analysis also demonstrated the participants' adaptation to the interlocutor. For instance, Ami started to use prosody-marked candidate solutions to test Hang's Japanese ability due to Hang's increase in her Japanese ability. Maya started to add additional turns to secure intersubjectivity during her word searches, possibly related to Yanti's lack of other-correction. Moreover, Yoko displayed her increasing ability in her third language, Thai, which is also Jacy's L1.

These adaptations of the Japanese participants could be associated with their interlocutor's changes during word search sequences. Ami, Maya, and Tomoko's partners performed less other-corrections during the word search sequences over the course of time. As a result, the partners displayed their perspective towards their partner as an English language "user" rather than a "learner." At the same time, the Japanese participants displayed

adaptation to the interlocutor to secure intersubjectivity by using new strategies during word search sequences. Other findings demonstrated cultural learning of the partner, closer relationship between the interlocutors, and change in responses depending on the interlocutor. In contrast, Tomoko displayed lack of change in the positive direction compared to other participants in the study, suggesting her lack of interest in orienting the interaction as a learning opportunity influencing her degree of change.

Despite accumulating research agreeing that that context is important and the interlocutors do affect the performance in talk, there is little mention of how the surrounding language community itself changes around the L2 speakers and how that may affect the performance of the speaker. Developmental studies of interactional competence have not considered the interlocutor and their changes and development either.

My findings support the claim that the interactional environment, especially the interlocutor, plays a crucial role in the conversation. Furthermore, the effects of the interlocutor became evident through the adaptation of the Japanese participants in their interaction during word search sequences. At the same time, the partners, or the interactional environment itself, displayed changes during the word search sequences. The partners displayed less linguistic superiority towards the Japanese participants, as a result in most cases, the participants gaining equal epistemic stance in terms of the English language knowledge. In sum, we were able to observe the changes of the interlocutors, as well as how they treat and position each other.

The latter part of the chapter will apply these findings to the CAS principles to analyze if the development of the use of word search sequences demonstrates linearity or CAS features.

5.9. Language Development and Complex Adaptive Systems

In this section, I will first demonstrate how the data from this study can be understood from a CAS perspective by adapting the principles to the results from the analysis. Then, I will discuss the implications the results have on development of word search sequences and ELF interactions. The following nine principles of CAS as outlined in Chapter 2 (Section 2.11) will be used as the framework.

1. Self-organization and adaption of many interacting agents.
2. Non-linearity.
3. Surface complexity arising out of deep simplicity.
4. Sensitivity to initial conditions
5. Complex systems adapting feedback from the environment and from themselves
6. CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts.
7. CAS display both homogeneity and heterogeneity.
8. CAS display self-similarity on various scales and levels.
9. There are universal properties of non-linear systems (different systems behave in the same ways.

The subsequent sections will review the data from the perspective of these principles.

5.9.1. Self-organization and adaption of many interacting agents

One of the CAS principles is regarding self-organization and adaptation of agents (see Section 3.8.1). When seeing the individual participants as agents, adaptation to partner (i.e., the interactional environment) was observed.

Ami displayed changes in the reason for her use of prosody-marked candidate words, Maya adapted a new strategy of adding an extra turn to secure intersubjectivity, and Yoko

displayed use of Thai in initiating word searches. These adaptations of the Japanese participants can be connected to their partner's linguistic ability or tendency in the interaction. As a result, different adaptations were observed among the participants. In other words, the changes of the Japanese participants during their word search sequences were self-organized and emerged through the interactions rather than instructed by a teacher. This is consistent with what the The Five Graces Group (2009) pointed out regarding the emergent nature of language from human social interactions.

5.9.2. Non-linearity

CAS also display non-linearity (see Section 3.8.2). As seen from the graphs in Figure 6.1 (Section 5.2) of the participants' overall English language proficiency and Figure 6.3 (Section 5.3) their overall initiation of word search sequences, there seems to be a linear change. That is, the participants' overall English language proficiency improved, and their overall frequency of initiation of word search sequences decreased. The simple interpretation of this would be that the participants therefore "improved" over time.

However, observing the individual participants in detail, wide variations were observed. For instance, when examining the individual TOEFL scores, there is a wide variation with Ami increasing dramatically while Tomoko hardly changing. This is similar to what Larsen-Freeman (2006) identified with her participants' writing skills, where whilst overall improvements were found, there was also large individual differences in their developmental patterns.

Moreover, some changes were not always progressive, but at times digressive. With regards to the interactional sequence and orientations, Tomoko displayed increase in reliance on her partner Pham's linguistic ability in confirming her word choices. In contrast, other participants demonstrated decrease or no change in their reliance to their partner in resolving

their word searches.

As such, the non-linear nature of language development can be understood from the data, and this non-linear nature explains the wide range of changes among the participants. Despite all four Japanese participants living in a similar interactional ELF university dormitory environment as first year university students, diverse results and development of interactional competence were observed after one academic year.

5.9.3. Surface complexity arising out of deep simplicity

The third principle, closely related with non-linearity, is complexity arising out of simplicity (see Section 3.8.3). The data demonstrated that word search initiations have relatively simple and rudimentary patterns of a universal and simple use of pauses, hesitation markers, and gaze. Yet, this can lead to large differences in the (a) sequential patterns, (b) variation in candidate solutions among the participants, and (c) complex changes over time in and through the interactions.

More specifically, in the case of Maya in Excerpt 46 (Section 5.5.3), she initiated a word search of the word "carp" using repetition, pause, and rising intonation. However, rather than having the word search sequence complete with Kei's correction as in Excerpt 28 (Section 4.4.2), the sequence moved on to a more complex negotiation of the accuracy of the word choice and pronunciation, leading Maya to use her dictionary to defend her word choice.

Similar points can be said with the participants' developmental patterns. Although the word search sequences were initiated in a similar pattern, as time passed participants developed various strategies in resolving the word search. For instance, Ami started to use prosody-marked candidate words as to check Hang's comprehension rather than to elicit confirmation (Excerpt 37, Section 4.4.3), while Maya started to add extra turns after the partner's backchanneling as a means of securing intersubjectivity (Excerpt 50 and 51, Section

5.5.4). These were unique changes that were identified only with these particular participants.

These examples thus demonstrate that a variety of word search negotiation sequences and changes can arise from a similar and simple word search initiation pattern.

5.9.4. Sensitivity to initial conditions

Sensitivity to initial conditions, means that small changes in one or more components of the system can lead to large differences of the behavior of the system as a whole (L. B. Smith & Thelen, 2003) (see Section 3.8.4). The data of this study also suggested the participants' sensitivity to initial conditions, that is, the participants' overall proficiency level and their partners.

Although the relation of cause and effect cannot be proven, one possibility is that the difference of the participants' proficiency level at the start of joining the ELF environment may have influenced the changes of the participants. Ami and Maya displayed expansion in their range of candidate solutions, while Yoko and Tomoko displayed minimal change. The similarity between Ami and Maya, and Yoko and Tomoko is their overall language proficiency, which also influenced their placement in the university English language program.

Moreover, when considering the partner as a condition, the participants displayed different interactional sequences and orientations depending on whom they were talking to. Although at a similar timing of the recording, Tomoko displayed different orientations towards the interaction when the partner was Pham, who had relatively more knowledge of the English language and experience abroad in comparison to Anh. Tomoko displayed orientations towards learning during word search sequences when talking with Pham while ignoring Anh's repair and not displaying orientation to learning.

In sum, the participants' proficiency level and the interactional environment at the

beginning of the recording lead to a wide range of differences through the interaction and over time.

5.9.5. Complex systems adapting feedback from the environment and from themselves

CAS are "open systems" (J. H. Brown, 1994; L. B. Smith & Thelen, 2003) and are constantly adapting based on feedback (see Section 3.8.5). As discussed earlier in Section 5.9.1, participants do respond to the partner's reactions (i.e., the interactional environment) sensitively.

For example, Ami noticed Hang's increase in her Japanese ability through the use of "*suppai*" (sour) in Excerpt 11 (Section 4.3.1), and possibly used a Japanese word "*mogiten*" (store/booth) in Excerpt 16 (Section 4.3.2) in resolving her word search, despite knowing how to explain in in English. However, when noticing that Hang does not understand, Ami readjusted her candidate solution method and explained in English.

More specifically, this phenomena can be understood as Ami noticing the change in the interactional environment based on the feedback she received (e.g., Hang knowing Japanese, e.g., *suppai*), adapting her candidate solution method and applying it in the interaction (e.g., using Japanese, *mogiten*), receiving feedback again (e.g., Hang does not understand the Japanese word), and adapting to the feedback again (e.g., using English, shop).

Other examples of this principle can be found in one interactional sequence. Again with Ami's case in Excerpt 19 (Section 4.3.3), in this excerpt she responds to the lack of feedback from Hang and presents alternative strategies explanations to achieve mutual understanding. First Ami started with "what things" with no rising intonation, then adjusted to "what thing" with prosody followed by "do you like the best, " and then "what happened." When Hang suggests, "experience" as a candidate understanding, Ami adapts and uses it. Which is then followed by Ami's change of state token ("ah") and displays "learning" or a

display of cognitive adaptation.

Therefore, adaptation to feedback was observed in one segment of the talk, as well as over time through several talks. Furthermore, the multiple adaptations to the interactional environment by the participants demonstrates that the interactions between the dyads are "open systems" and the language and interaction are influences by the speakers' surrounding interactional environment.

5.9.6. CAS arise from the interaction of their parts and function as a whole which is more than the sum of its parts

In CAS, "much comes from little" (Holland, 1998) and the whole can be more than the sum of its parts (see Section 3.8.6). This result of non-linearity and complexity was also observed through the data.

In general, as seen in Chapter 5, the word search sequences analyzed in this thesis hold a pattern as shown below:

A: initiation

A: self-resolution strategy

B: confirm/correct

The majority of the time, all the participants followed this pattern during their interactions. However, at the latter time of their recordings, new patterns started to emerge. For instance in Maya's case, she displayed emergence of additional confirmation strategy (e.g., Excerpt 50 and 51, Section 5.5.4), or more independence in resolving the word search through the use of more turns and less scaffolding from the partner (e.g., Excerpt 41, Section 5.5.2, "*doshusei*"). In Yoko's case, there was an emergence of word search initiation in Thai (e.g., Excerpt 55, Section 5.6.3).

These new emerging interactional patterns were the result of the interaction with their

interlocutor and time. Thus demonstrating that one plus one does not always equal two, but sometimes equals three or even four. In this case, word search initiations and candidate solutions not only lead to the resolving of the word search but also led to the emergence of new strategies of resolving word searches and securing intersubjectivity.

Furthermore, the changes for some participants led to their emerging position in the interaction as "English language users" rather than a "learner" or a "novice" user. This is consistent with what Smith and Thelen (2003) noticed. They note:

> [T]he results displayed the embedded levels of change. While the micro turn-taking patterns and language use displayed changes for some, such as emergence of new recovery strategies and additional turns to secure intersubjectivity, in another level above the micro language use, changes in orientation towards the conversation and the identity the participants display through their language use was observed. (p. 347)

Thus, the results coincide with the CAS's principles of embedded levels and timescales and the idea that "small changes in one or more components of the dynamic system can lead to reorganization and to large differences in behaviour" (L. B. Smith & Thelen, 2003, p. 347).

5.9.7. CAS display both homogeneity and heterogeneity

CAS also display both homogeneity and heterogeneity (see Section 3.8.7). Again, there were similarities in the word search initiation methods and the candidate solutions used among the four participants. The use of candidate words, code-switching to Japanese, using semantic contiguity, and gestures were common features among all the participants used to resolve self-initiated word search sequences (see Section 4.3).

Nevertheless, the outcomes of the word search varied. Some sequences became learning opportunities (e.g., Excerpt 10, Section 4.3.1), while others did not (e.g., Excerpt 62,

Section 5.7.3). Similarly, the reaction by the partners to the candidate solutions differed, some oriented to "teaching" (e.g., Excerpt 28, Section 4.4.2, "subway") while others displayed minimal response (e.g., Excerpt 27, Section 4.4.1, "extension").

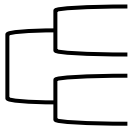
As such, although the sequences have similar patterns as displayed above (Section 5.9.6) with Speaker A initiating the word search and then attempting to resolve it, and Speaker B providing uptake, no two sequences were identical. Therefore, it can be said that word search sequences display both homogeneity and heterogeneity.

5.9.8. CAS display self-similarity on various scales and levels

The word search sequences also displayed fractal features (see Section 3.8.8). When resolving word searches, there were always in adjacency pairs, such as question and answer or initiation and repair, which then became part of a word search sequence. Several of these word search sequences, on a larger scale, can then be seen as a longer interactional sequence or a conversation.

Let us take Excerpt 26 (Section 4.4.1) as an example as shown below. Lines 1 and 2, and lines 3 and 4 can be understood as adjacency pairs of question and answer. These two adjacency pairs together can then be understood as an initiation of a word search (question) and repair (answer). Therefore, word search sequences do display cohesive patterns through self-organization and displaying self-similarity on different scales and levels.

<Excerpt 26: Maya Kei July30th Represent>



```
1  Maya:   represent- (0.4) n, present?=
2  Kei:    =>yeah yeah yeah.<=
3  Maya:   =>°↑present repre↓sent,°<
4  Kei:    represent.
5  Maya    like (1.8) in Korea:(0.4) Kim Yona,
```

However, when considering "development" of the word search sequences, fractal features are difficult to pinpoint due to the variation that they exhibit. Thus, although word search sequences can themselves be considered fractals, the changes in them cannot

necessarily be said to display fractal features.

5.9.9. There are universal properties of non-linear systems: Different systems behave in the same ways

The final CAS principle is regarding universal properties of non-linear systems (see Section 3.8.9). Through the analyses I have demonstrated that despite the participants' similar language patterns at the beginning, through feedback and adaptation, there was a wide range of individual differences at the end of the data collection regarding their word search sequences and orientation to the interaction. Yet, common features among the different participants were also identified.

Some similarities include the change in the orientation of the interactional partners and the preference towards self-repair. That is, at time passed, many of the partners used less other-repair during the word search sequences and as a result encouraged the use of more self-repair sequences by the Japanese participants. Therefore, although the participants' partners were all different and the dyads' interactions were organized independently, the partners displayed similar changes over time, displaying some universal properties of non-linear systems.

5.10. Summary of Language Development and CAS

The analysis from the second part of the chapter demonstrated that the changes of word search sequences in the participants of this study do display characteristics of CAS.

Larsen-Freeman and Cameron (2008a) suggest that CA, including longitudinal CA, is compatible with investigating CAS, and Seedhouse (2010b, 2015) has demonstrated this possibility on analyzing classroom interactions. This study took it a step forward in analyzing longitudinal CA data as CAS. It has demonstrated that methodologically it is possible.

Moreover, the analysis demonstrated that development of L2 users' word search

sequences in ELF interactions displays non-linear dynamic features. In other words, changes of interactional competence of L2 users are locally situated and adaptive to the feedback from the immediate interactional environment. The analysis also suggests that the identified features of word searches in ELF interactions emerged through adaptation to the interlocutor, who is also changeable

However, limitations of the CAS framework used for this study was also identified. The particular CAS principles used for this study did not take into account the different timescales on which agents behave. This suggests an expansion of the framework in incorporating the concept of "time" when analyzing development. Therefore, researchers should carefully consider the data when analyzing development of interactional competence from the CAS perspective.

Chapter 6. Findings

6.1. Introduction

The previous two chapters examined word search sequences in ELF interactions in distinct ways. Chapter 4 laid out the common word search sequence patterns found in the current collection. Chapter 5 examined the changes of word search sequences initiated by the four participants with their fixed partners over time and from the conceptual framework of CAS. These analyses were conducted using CA as the main method of analysis, and quantification of CA.

In this chapter, I will first review the overall results from Chapter 4 and 5, then the findings from the perspectives of (a) ELF interactions, (b) word search sequences, and (c) development of interactional competence. The chapter will then end with implications on future research on ELF interactions, and on developmental research informed by CAS.

6.2. Summary of Findings

The purpose of the current study was to answer the following four research questions:

1. How do L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations which the L2 speaker shows trouble locating a word?
2. How does the interlocutor respond to a word search recovery work by an L2 speaker?
3. How do interactional patterns of word search sequences change over time?
4. Is development of the use of word search sequences linear or does it display the characteristics of a CAS?

Utilizing CA and employing a longitudinal embedded case study research design to the data collection at an ELF environment of an international university dormitory in Japan, the above

research questions were answered.

For research question one, the analysis demonstrated that attempted word search candidate solutions used by the Japanese participants include the use of: (a) candidate words, (b) code-switching, (c) semantic contiguity, (d) gestures, and at times (e) the dictionary. For research question two, the analysis demonstrated that the responses to prosaically marked word search candidate solutions from the partners included: (a) confirming, (b) correcting, (c) presenting candidate understandings, and (d) requesting for repair through repetition.

From these findings, it was concluded that interactants in ELF interaction display interesting interactional features during word search sequences. Moreover, these interactional features are the result of the utilization of affordances and adaptation to the feedback from the interactional environment. More specifically, the features of word searches in ELF interactions were the result of adaptation to the interlocutor.

For research question three, the analysis demonstrated that depending on the participant, there were (a) decrease in overall frequency of word searches, (b) partner's change in orientation towards the word search sequences, (c) change in use of the prosody-marked candidate solutions, (d) less reliance on the partner's linguistic resources in resolving word searches, (e) adding additional turns to secure intersubjectivity, (f) emergence of the use of third language in initiating word search, (g) cultural learning, (h) development of a closer relationship with partners, and (i) more reliance on partner's linguistic resources.

Moreover, when referring to research question four and the principals of CAS framework, arguably the data demonstrated CAS features. More specifically, the participants' use of word search sequences changed in a non-linear matter, and emergent language use were both identified as means of displaying adaptation to the immediate interactional environment. As a result, the interactions were not always L1 speaker-like, and non-standard

English use, including code-switching, was accepted by the interlocutors.

It was also found that participants who initially had lower level English language proficiency as measured by the TOEFL showed stronger orientation to the interaction as a learning opportunity at the beginning of the recordings, and also demonstrated expansion of their use of candidate solution strategies. These emergent candidate solutions facilitated the mutual understanding of the interlocutors and the progressivity of the conversation.

Furthermore, a detailed individual analysis of the word search sequences demonstrated that the partner's orientation towards word searchers changed over time. To be more specific, some of the partners changed from treating the word search sequence as a pedagogic opportunity to viewing them as a solitary search by the Japanese participants. Therefore, the partners did not initiate an other-repair unless explicitly prompted during the later recordings.

In short, the interactional environment (interlocutor) displayed changes, and the partners started to display preference towards self-repair and progressivity. As a result, the Japanese participants adapted to this changing environment through alignment and development of new interactional skills to secure intersubjectivity. This is similar to Jenks'(2010) study where the speaker adapted his talk opening when the speaker knew about the interlocutor's knowledge from prior encounters. Therefore, this study strongly suggesting that development of word search sequences in ELF interactions is a result of locally organized adaptations to the interactional environment.

6.3. Reflection on the findings on word search sequences in ELF interactions

In this section, I will summarize the findings from Chapter 4 and synthesize them in terms of the following areas of (a) word search sequences in ELF interactions and (b) development of word search sequences, as they pertain to the research questions.

6.3.1. Overall findings on word search sequences

Chapter 4 aimed at answering the first two research questions of, (a) How do L2 speakers of English in ELF interactions attempt to reclaim intersubjectivity in situations which the L2 speaker shows trouble locating a word? and (b) How does the interlocutor respond to a word search recovery work by an L2 speaker? In order to answer these questions, the chapter analyzed word search sequences in ELF interactions in terms of initiation, candidate solutions used by the Japanese participants, and responses by the partners to prosody-marked candidate solutions.

Using CA as the main method of analysis and analyzing four Japanese participants engaged in ELF interactions for a total of 37 hours, the following features were identified as a common trend shared by the interactants:

1. Word search sequences are initiated using "How do you say" or variation of a "what" or "what is it" in Japanese (e.g., *"nanka," "nani," "nandakke," "nante iuno" "nanda"*).
2. Attempted word search candidate solutions used by the Japanese participants include the use of: (a) candidate words, (b) code-switching, (c) semantic contiguity, (d) gestures, and, at times, (e) the dictionary.
3. The responses to prosody-marked word search candidate solutions from the partners included: (a) confirming, (b) correcting, (c) presenting candidate understandings, and (d) requesting for repair through repetition.

Through analyzing these results, repeating features that arise are the linguistics features of ELF interactions that are not mentioned in L1-L1 or L1-L2 interactions and the membership categorization of the interactants. These two points will be discussed in the following subsections.

6.3.2. Features of ELF Interactions

One of the striking features that unfolded from the data analysis is the flexibility of the language and interactional skills used in the ELF talk-in-interaction. In other words, what is considered "correct" or "standard" language is not fixed, and accuracy of the language is not always relevant in the talk. For instance, unconventional language use such as "water clothes" (Excerpt 10) and "traffic pay" (Excerpt 50) were not the object of immediate other-correction. In addition, the participants used English as the main code for communication, but also used other shared languages such as Japanese and Thai. These other languages were used in initiating solitary word searches, prompting other-repair, and providing candidate solutions. Although the use of L2 in ELF interactions has been documented, the L3 use of is rarely found. However, in ELF interaction outside the classroom, L1, L2, and L3 are used when the speaker assumes that the interlocutor will understand demonstrating the adaptability of the speakers and their use of "affordances" (Gibson, 1977) in achieving their interactional goals.

Laughter was also frequently identified in the interaction. The Japanese participants were often found using laughter along with or after unconventional language use. This could be interpreted as the Japanese participants displaying their understanding of the candidate solution being potentially problematic and thus "flagging for markedness" (Firth, 2009), and at the same time, displaying embarrassment of incompetence (Wilkinson, 2007). The reasons for the partner to laugh during the Japanese participants' word search, however, could be for various reasons. It could be to display alignment or agreement, to show that the word search initiation as unexpected, or to alleviate the seriousness of the other-repair. Nevertheless, laughter during word search sequences in this data set occurs frequently, and a closer investigation of laughter in ELF talk may provide more insights into the organization of ELF interaction.

Other features such as the use of pre-emptive repairs (e.g., Kaur, 2009) to secure intersubjectivity when the speaker cannot confirm clear display of understanding from the hearer through repair (e.g., Excerpts 50 and 51), and using internal jokes with non-standard language use to display intimacy and remembrance of prior conversations of the partner's culture (e.g., "become dried fruits," Excerpt 57) were identified. However, these features were only found later in the recording sessions, suggesting that some of the distinct features of ELF interactions emerges from the local interactional environment and is not a preexisting condition.

Earlier ELF studies aimed at documenting and codifying the patterns of ELF in order to conceptualize an alternative to English as a native language (e.g., Seidlhofer, 2001). However, more recently, scholars have started to accept the ever-changing negotiation and language of ELF, thus questioning the idea of "language variety." Canagarajah (2007) points out, since ELF has diversity at its heart, "intersubjectivity constructed in each specific context of interaction" and "form of this English is negotiated by each set of speakers for their purposes" (p. 925). Therefore, the variation of ELF is unlimited. The current study resonates with this claim that the ELF is diverse and ever-changing. Thus, "standard English" as portrayed through standardized tests as the TOEFL shows large discrepancies in use among speakers using ELF.

Seidlhofer (2009) explains that this variety of English is found because, "the interactants are making use of their multi-faceted multilingual repertoires in a fashion motivated by the communicative purpose and the interpersonal dynamics of the interaction" (p. 242). She therefore suggests that ELF and ELF speakers should be understood from the conceptual framework of communities of practice (Wenger, 1998), where interactions are "by 'mutual engagement' in shared practices, taking part in some jointly negotiated 'enterprise',

and making use of members' 'shared repertoire'" (Seidlhofer, 2009, p. 228).

This study, however, argues that the variations in ELF interactions emerge from an even more local level of dyadic interactions and the accumulation of the sequential negotiations and adaptations of the interlocutors to each other over time. This leads to different features in the interaction that possibly could only be understood or accepted by the specific interlocutor.

6.3.3. Epistemics stance

Along with the patterns of the non-institutional ELF interactions, the participants demonstrated sensitivity to the "epistemic stance" (Heritage, 2012b, 2013; Raymond & Heritage, 2006) of each other and "territory of knowledge" (Kamio, 1994, 1997) of the English language knowledge.

First of all, the findings showed that there is an unequal epistemic stance in terms of who has more knowledge of the English language. During the early stages of the recordings, the Japanese participants would be self- and other-positioned as the "English language novice" or in the K- position, while the partners as the "English language expert" or in the K+ position. This was demonstrated through the partners conducting non-elicited outright corrections and the Japanese participants would display alignment to this (e.g., Excerpt 28). In contrast, some partners showed sensitivity to the epistemic stance through careful structuring of her turn to save face of the speaker and to downgrade the differences (e.g., Excerpt 59).

At other times, the Japanese participants would utilize the unequal epistemic stance and locate the word that they are searching for. What is more, some Japanese participants would show strong orientation to the word search sequences as learning opportunities (e.g., Excerpt 10). This would be done often through using prosody-marked candidate solutions or explicit use of word search initiators accompanied with gaze. This coincides with Brouwer's

(2003) findings of the L2 users using "how does one say it" and calling for help and creating a language learning opportunity.

However, unlike L1-L2 interactional studies, in an ELF context where the language authority is not pre-determined, how the interlocutors positioned themselves in terms of the English language knowledge was found to be negotiable and changing. For instance, as time passed, there were fewer cases in which the partner would orient to the word search sequence as a teaching-learning opportunity and did not conduct other-corrections, while the Japanese participants would sometime pursue the other-correction. This is similar to Kurhila (2006) and Theodorsdottir's (2011) studies of L1-L2 service interactions where the speakers have different interactional goals, and therefore do not repair the L2 speaker's turn. Therefore, these observations suggest the different interactional goals of the speakers in this study and the changes of the goals over time.

In contrast, some participants showed non-alignment and refuted the K- position imposed upon her by (a) ignoring the other-correction even when the correction was legitimate (e.g., Excerpt 61) or (b) relying on the affordance and authority of the dictionary to support her epistemic supremacy of a word (e.g., Excerpt 23), thus, the data reveals that word search sequences do not necessarily become learning opportunities. Park (2007) found similar situations in L1-L2 interactions where the L2 speaker would avoid being positioned as the "L2 learner" through denying the content of the other-repair. Therefore, even in ELF interactions, K+ and K- positions are constantly being monitored and negotiated by the members of the talk.

Moreover, participants were found managing the degree of co-construction of the word searches through their systematic use of gaze. Participants were able to (a) indicate solitary search and display a potential K+ position of the word through disengagement of gaze

and (b) request for confirmation or display a K- position and initiate other-repair through mutual gaze. This is almost the opposite of what typically occurs in (language) classrooms that has been reported where students would avoid mutual gaze with the teacher to display "not knowing" the answer to the question posed by the teacher (Sert & Walsh, 2013). However, in the data from this study in non-institutional settings, participants disengaged eye contact when there was a possibility of knowing the word they were searching for.

Overall, it can be said through the data analysis that in ELF interactions, the interlocutor has a noticeable influence on the ongoing interaction and the Japanese participant's display of English language ability.

6.4. Reflection on the findings on development in and through word search sequences

6.4.1. Overall findings on development

The purpose of Chapter 5 was to answer the third and fourth research questions, (c) How do interactional patterns of word search sequences change over time? and (d) Is development of the use of word search sequences linear or does it display the characteristics of a CAS? It analyzed the four Japanese participants and their fixed partners across a maximum of 22 months, focusing on the changes of their word search patterns and their orientations towards their partners and the interactions. Emic analysis of the interactions showed the following changes of the four participants:

1. Ami's interactions displayed, (a) decrease in overall frequency of word searches, (b) partner's change in orientation towards the word search sequences, and (c) change in use of the prosody-marked candidate solutions.
2. Maya's interactions displayed, (a) less reliance on the partner's linguistic resources in resolving word searches, (b) partner's change in orientation

towards the word search sequences, and (c) emergent use of pre-emptive repair of adding additional turns to secure intersubjectivity.

3. Yoko's interactions displayed changes in (a) the use of third language in initiating word search, (b) cultural learning, and (c) closer relationship with partners.
4. Tomoko's interactions displayed changes in (a) her partner's orientation towards the word search sequences, (b) more reliance on partner's linguistic resources, and (c) different stance/ attitude depending on partner.

From these results two points are common across all the participants in terms of change over time, (a) individuality and (b) context-renewing. These two areas will be explained in the following subsections.

6.4.2. Individual differences

The most evident change is the individuality of the changes, that is, all participants displayed different changes over time. For example, some displayed new ways of securing intersubjectivity during word searches while others did not, some showed cultural learning and a developing relationship, while others did not, and some displayed stronger orientation to the word search sequences as a learning opportunity, while others showed weaker orientations.

Since this study has taken a multiple case-study approach, the individual cases (or dyads) brought about different findings. Therefore, it is difficult to make any immediate conclusion of the effects of ELF interactional environments on the development of interactional competence. Nevertheless, as discussed in Sections 5.8, 5.9.1, and 5.9.5, the commonality among the participants is their adaptation to the local interactional environment (i.e., their partner). This point will be discussed further in the next subsection.

6.4.3. The interlocutor and context-renewing

In this study, the identified features of ELF interactions and the individual changes of the Japanese participants' interactions can be connected to the changes of their interlocutors. For instance, Maya and Tomoko's partners performed less other-corrections during the word search sequences overtime, as a result Maya started using pre-emptive repair moves in securing intersubjectivity and Tomoko started to pursue repair through explicit initiation moves. When Ami's partner displayed increase in her Japanese ability, Ami started to use Japanese in the interactions although knowing the equivalent in English.

Heritage (1984b) discusses interactions being "context-shaped" and "context-renewing." In other words, utterances can be understood only in the sequential environment in which it occurred (context-shaped), and every shaped context will affect the context of the next action in the sequence (context-renewing). As Heritage (1984b) puts it, "the context of a next action is repeatedly renewed with every current action" (p. 242). Although the CA assumption of context-renewing is usually referred to the sequential context in one stretch of recording, this seems to be able to transfer to the interactional contexts across longer stretches of time, that is, one interactional occasion affecting the next interactional occasion. This is one of the distinct findings of this study due to its longitudinal design.

6.4.4. Quantification and language proficiency

In addition, quantification of the word search sequences and overall English language proficiency scores provided limited information of the participants' interaction and their longitudinal changes. Furthermore, the frequency of the word search sequences did not necessarily correlate with the overall English language proficiency as measured by the TOELF ITP. With an assumption that language development occurs in a linear progression in stages, in this study, quantification of single instances over time did not display development.

However, quantification allowed noticing of emergent language use.

6.5. Implications for Research on ELF Interactions

The analysis of the data suggests three implications regarding ELF interactions: (a) the emergence of new language use, (b) change in epistemic stance regarding the knowledge of the English language, and (c) the effects of the interlocutor on the interaction.

First, it was identified that the distinct language choices during word search sequences in ELF interactions do emerge through the interaction. For instance, the use of second (Japanese) or third (Thai) shared language was found. In other cases, the reason for using prosody during the word search resolving process was found to have changed. In Ami's case, word searches with prosody were not necessarily used because the speaker lacked the knowledge of the L2 in order to request a repair or confirmation. Rather, she was checking if the partner knows the shared second language, Japanese, which better expresses the object Ami is referring to (i.e., food booth/stall).

Furthermore, depending on the English competence of the interlocutor (or the presentation of it), the Japanese participants displayed different orientations to their word search sequences. Some participants relied more on the partner when the partner displayed a higher overall English language ability. Thus, creating a situation similar to that of a L1-L2 speaker interaction as documented in previous studies (e.g., Hosoda, 2000; Kurhila, 2006). However in other cases, the participants displayed increasing confidence in their word choice, as a result claiming epistemic primacy over their partner in terms of their English language word choice and knowledge. Thus a change in the interactional identity of the "English language expert" was observed.

Cook (2013) and Jenkins (2015) note that ELF studies in the past traditionally have not seen ELF speakers as multilingual individuals in multilingual communities, where

speakers have other shared languages besides English. Shared third languages and how it is used in ELF studies have rarely been studied, let alone how they manifest in naturally occurring interactions.

Moreover, Jenkins (2015) states that these shared language recourses "may not be shared from the start (nor do interlocutors necessarily know from the start what they do in fact 'share')" (p. 64). This study is one of the first to capture the emergence of theses shared recourses in action (e.g., Japanese, and to a lesser extent, Thai) and how it influences the interaction. Therefore, this study demonstrated that ELF speakers are multilingual and the interlocutors do have more than English as a shared language. Furthermore, a shared language may not be available from the speakers' first encounters, but they may discover or create other shared languages as they study other languages (e.g., *suppai* in Excerpt 11).

6.6. Implications for Developmental Research on CAS

Based on these findings, three recommendations for developmental studies on interactional competence can be suggested. This includes: (a) the need to incorporate the interactional environment including the interlocutor into the data analysis, (b) the need to accept that language development is an individualistic and dynamic process, and (c) realizing the limitations of quantification in developmental studies.

First, the interlocutors' utterances and orientations to the interaction demonstrated a large effect on the participants' speech and orientation in the sequences. Although language development is measured and understood by observing the individual, speakers adapt to the surrounding environment (e.g., interlocutor). As Brouwer and Wagner (2004) point out, conducting studies with fixed interlocutors are important in understanding the ways in which the adaptation process and the individual changes within the fixed environment occurs.

However, as Thelen and Smith (1994) have argued, development and cognition are a

complex dynamic system and the human learning is non-linear. In other words, development does not occur in stage-like progression. Therefore, when analyzing development of word search sequences, and perhaps other kinds of interactional competences, one must take into account the complexity of the feature itself and its individualistic and non-linear developmental patterns that cannot be captured by just quantifying the phenomena. This is connected to a CAS principle that explains behavioral changes occur over different timescales (L. B. Smith & Thelen, 2003). In other words, agents display changes at different times. Although the CAS principles which Seedhouse (2010b) laid out did not include this concept of different timescales, this principle of time does become an important aspect for consideration when observing change and development over time. More specifically, although similar changes were observed, they did not necessarily occur at the same time of the data collection.

In addition, although similarities in the patterns of use of word search candidate solutions did emerge from the interactions, the process in which the participants were using these strategies, as well as the variety of the strategies used, varied. Lowie and Verspoor (2015) note:

> Language development is an inherently individual and dynamic process and there can be no logical expectation that the pattern found in generalizations at the group level is the same as the actual development of the individual learner. (p. 84)

As such, the data in this current study also demonstrated individual differences in the changes of word search sequences despite the participants' similar initial English language proficiency and the similar environment that they are in (i.e., the university dormitory, enrolled in English language classes). Therefore, developmental research where post tests are administered only once at the same time to all participants may not be able to capture the changes that may

occur after that data collection point.

Consequently, measuring language development from a CAS perspective would become a complicated process. Lowie and Verspoor (2005) explain, “cognition cannot only be accounted for by maturation of the brain but is formed by multiple causes” (p. 71). It is difficult to determine the exact variable that caused any changes. Interactions and changes in interactional competence are greatly influenced by small actions of the interlocutors, and changes do not necessarily occur in a linear manner. Then again, it can be argued that developmental studies in the field of applied linguistics have treated and understood language development in an oversimplified manner, for instance, expecting L2 speakers to use the language similar that of an L1 speaker as time passed, or immediate changes occurring after language instruction or all learners developing at the same pace.

This study and other language developmental studies from the CAS perspective have gradually been demonstrating and arguing that the linear progressive model of L2 speakers becoming closer to L1 speaker norms may not be the standard developmental pattern (e.g., Lee et al., 2009). Instead, by accepting that language development is multi-causal, has nested timescales, and is a self-organizing process (L. B. Smith & Thelen, 2003), we may gain a deeper understanding of language development and its process.

6.7. Summary

Chapter 6 set out to synthesize the findings from Chapter 4 and 5. The findings demonstrated that ELF word search sequences demonstrate some features which are distinct from L1-L1 or L1-L2 interactions that has not been widely known. Furthermore, the use of these shared resources were not *a priori*, but were the result of mutual adaptation of the interlocutor through the interaction. As a result, the development of the use of word search sequences demonstrates features of CAS. Therefore, I argue that the development of the L2

speakers' use of word search sequences can be understood as the result of non-linear adaptations of the interlocutors while trying to achieve an interactional goal.

Chapter 7. Conclusion

7.1. Introduction

This final chapter will address the contribution of the findings, as summarized in Chapter 6, to the field of applied linguistics. In addition, chapter will discuss the methodological and analytical considerations, and suggestions for future research.

7.2. Contributions to the Field of Applied Linguistics

The contributions of the current study can be summarized into mainly two areas; contribution to understanding ELF interactions, and contribution to understanding development of L2 interactional competence.

First, this study was one of the first to study the development of word search sequences in non-institutional ELF interactions using CA as the main methodological approach. In particular, the study was set in a unique environment of an international university dormitory in Japan. By documenting the same dyads longitudinally as suggested by Brouwer and Wagner (2004), the study was able to elucidate the locally organized sequential patterns of interactions and its evolvement over time. This study was therefore able to build on the handful of studies that have taken this approach to longitudinal CA data (e.g., Hauser, 2013c; Kim, 2009), and demonstrate its effectiveness in understanding self-initiated word search sequences.

The results of this study also demonstrate that ELF is organized at the dyadic and sequential level of interaction. Although there is a debate whether ELF can be systematically understood and conceptualized (Jenkins et al., 2011), this study suggests otherwise. In other words, ELF generates in and through the interactions from the constant adaptation to each other in achieving their interactional goals, and therefore ELF would be different for all users and situations. In addition, these adaptations demonstrated the emergence of a multilingual

environment where not only English but also a second or third shared language became a shared linguistic resource. Despite the suggestion of a multilingual ELF interactional environment (Jenkins, 2015), this study was one of the first to document it in action.

Furthermore, the analysis contributed to our understanding that in non-institutional ELF interactions there is a constant monitoring and negotiation of K+ and K- positions in terms of the English language, as well as a negotiation of the interactional goals of language learning or achieving intersubjectivity to progress the talk. The flow of the interactions is influenced by the different positioning of the epistemic stance and interactional goals, suggesting the complexity of ELF talk-in-interaction. These features had not been discussed in such detail in previous ELF studies.

Finally, the current study also contributes to the argument that language development displays CAS features, and suggest that the development of interactional competence is also a CAS, displaying a non-linear pattern. Although accumulating CAS studies has argued that language and language development has features of CAS (e.g., de Bot, Lowie, Thorne, & Verspoor, 2013; Larsen-Freeman & Cameron, 2008a; Lowie & Verspoor, 2015; Lowie, Verspoor, & de Bot, 2009; The Five Graces Group, 2009), this study was one of its first to demonstrate that development of word search sequences also has features of CAS using detailed, naturally occurring interaction in an ELF context.

7.3. Methodological and Analytical Considerations

A few methodological and analytical considerations are necessary that may have influenced the results of this study.

In terms of methodology, one of the points that require consideration is the influence of the researcher. Although none of the participants were taking her class, three out of the four participants may have displayed a stronger orientation to the interaction as a learning situation

due to the researcher being an English language teacher at the university. By not disclosing that the researcher is observing the change in English language ability, but instead stating that she will be observing the interaction in general, participants may have shown different behaviors in talk. For instance, participants may have used different kinds of interactional behaviors such as using more in Japanese or additional shared languages. Moreover, although the researcher was never present at the data collection, knowing that the researcher will see the video recording may have influenced the interaction. For a more naturalistic interaction, placing a fixed camera in the kitchen area may have captured a more naturalistic interaction of the dormitory setting.

Another consideration is the interlocutors. Tomoko and Maya were unable to keep the same partner for the whole duration of the data collection. By tracking the same partner for a longer duration, different findings may have emerged. Rather than having only one fixed partner, the research design could have been changed to have two fixed partners who the participants will talk to every month.

Due to the scope of the research and time constrains, the short interviews that were conducted did not address how the participants perceived themselves during the interactions. For example, I could have asked if they saw themselves as an English language "user," "expert," "learner," or "novice" or how they perceived the interactional goals. By addressing these points to the participants the study may have highlighted different aspects of the ELF interaction in the dormitory. Nevertheless, due to the study's emic approach to the interactions, it was able to address aspects of the interactions which are conducted unconsciously even by the speakers.

However, because the study was exploratory and was one of the first of its kind, these aspects could not have been predicted prior to execution. Therefore, researchers conducting

future studies would benefit from taking these above points into consideration when creating their research designs.

In terms of analytical considerations, the study did not incorporate a syntactical analysis of candidate solution turns in seeking their degree of confidence and claim of knowledge. By incorporating a similar analysis as Raymond (2003) with his yes/no interrogative and declarative questions in displaying knowing or non-knowing of the answer, this may have revealed an interesting sequential pattern of word search sequences.

Moreover, the topics of the conversation and how they relate to the display of epistemic stance were not analyzed. Heritage in his papers (Heritage, 2012b, 2013; Raymond & Heritage, 2006) did not address the interactional topic and how it relates to epistemic stance. Frequently, conversational topics in this study's collection were about personal experiences, their culture, their L1, or the university courses they are taking. Therefore, students displayed an unequal knowledge of the conversational content, which seemed to influence the interaction more when compared with the differences in their English language knowledge. Although it is difficult to separate the content of talk and language, analyzing the relation between the conversational topic and epistemic stance would benefit the analysis of this study and contribute to the research area of epistemic stance in interaction.

7.4. Recommendations for Future Research

Although this study was able to disclose some aspects of development of word search sequences in an ELF context, there is still much more to investigate in this uncharted area in the field. For instance, collecting ELF interactions in other situations beside the dormitory, in study groups or cooking together, may display other dynamics and language use depending on their expertise. In one of the conversations between Maya and Yanti, Yanti explained how group work discussions would often go on tangents and students would begin teaching each

other their L1s.

In addition, this study demonstrated that English language interaction in an ELF community did have impact on the Japanese participants as analyzed through their use of word search sequences. By collecting ELF interactions from outside the participants' L1 society (e.g., during study aboard), different types of change may be identified. Various interactional competence and pragmatics research has demonstrated that studying abroad does influence how interactional competence develops. However, it is still unclear how and why that occurs. Observing how participants interact in an English language community, not necessarily with a L1 speaker, may display different results, as well as displaying the interactive reasons that contribute to the development of interactional competence.

Lastly, despite the findings, contributions, and possibilities of further research that this dissertation has brought to the area of development of word search sequences in ELF interaction, much more needs to be understood. In particular, in the current globalized world where interactants are speakers of multiple languages and no one language is the shared and dominant language of the interaction, more micro-analytical research on social interaction of these multicultural and multilingual contexts will surely become more important to deepen our understanding of the social factors in ELF environments.

7.5. Closing Remarks

In the world of globalization there are expanding opportunities of ELF interaction in everyday life. This study has contributed in opening a new avenue of ELF interactional research and has provided insights into development of interactional competence in non-institutional settings. Although more studies are necessary, the emic and dynamic non-linear perspective on interaction and development of interactional competence will have impact not only on futures studies of applied linguistics, but also on language teaching and assessment.

Future studies therefore should bear in mind the importance of incorporating a dynamic non-linear perspective when analyzing interactions and L2 user development.

Appendices

Appendix A: Consent Form in English

AGREEMENT TO PARTICIPATE IN RESEARCH

Investigator: Aki Siegel
Faculty Supervisor: Professor Paul Seedhouse
School of Education, Communication, and Language Sciences
Newcastle University, NE1 7RU, United Kingdom

Purpose of this Research:
Explore the extent to which English as a second language learners develop their performance in English through intercultural communication.

What You Will Be Expected to Do:
You will be asked to video record you and (an) international student on campus for 30 minutes, twice a month, for 2 semesters.

Your Rights
● To Confidentiality
The experimental procedure is organized to preserve your anonymity. The entire data collection process will be anonymous and your name will not appear anywhere in the data.

● To Ask Questions at Any Time
You may ask questions about the research at any time before or after the experiment. Questions may also be asked once experiment has begun. The investigator may be contacted at iimuro@apu.ac.jp

● To Withdraw at Any Time
You may withdraw from the study at any time, and you may require that your data be destroyed, without any consequences.

● To Ask for Data
You may ask for the transcription and video recording of yourself when they are made available.

Benefits and use of results:
I hope to use this research to better understand how English as a second language learners develop their language ability and be used as bases for improvements in teaching practices.

Possible Risks:
There are no risks involved in this research.

Signature:
I certify that I have read and understand the above, that I have been given satisfactory answers to any questions about the research, and that I have been advised that I am free to withdraw my consent and to discontinue participation in the research at any time, without any prejudice.

I agree to be a part of this study with the understanding that such permission does not take away any of my rights, nor does it release the investigator or the institution (or any agent or employee thereof) from liability for negligence.

_____
(print your name) (date)

_____
(signature)

CC: Signed copy to participant

Appendix B: Consent Form in Japanese

研究協力承諾書

研究者: 飯室亜紀 (Aki Siegel)

研究目的:
国際交流が及ぼす第二言語学習者の英語発達およびその過程の研究。

協力者の義務:
- 自分および国際学生との会話(キャンパス・寮内)を月2回、30分以上、1年間、ビデオカメラを使い録画をする。そのうち月1回は寮のシェアメイトもしくは同一の留学生との会話を録画する。
- 録画したテープおよびカメラを指定された日までに受取・返却・提出する。
- アンケート・インタビュー・言語クラスの成績・TOEFL/TOEICテストの結果の使用を許可する。

協力者の権利:

- **個人情報**

個人が特定されないように全てデータは処理され、個人名は使用されない。また、学術研究以外の目的で使用されることはない。

- **質問**

いつでも研究に関する質問をすることができ、直接もしくはEメールを使って質問が可能である。
連絡先は、メール:iimuro@apu.ac.jp、内線:4667。

- **棄権**

いつでも研究の協力から棄権することができ、その際、データの破棄を依頼することができる。
しかし、途中棄権を希望する際、謝金は全く払われない。

- ***データ***

会話の録画およびその書き起こしを希望し、用意ができていればもらうことができる。

研究の利点:
第二言語英語学習者の英語習得過程を理解することにより英語教育の発展につなげることができる。

リスク:
この研究にはリスクは伴わない。

承諾:
私は以上の内容を読み、理解し、質問に関する十分な回答を得、いつでも協力から棄権できることの説明も受けた上で研究に協力することに承諾する。

_____
(氏名) (日付)

_____
(住所)

_____
(署名・サイン)

CC: Signed copy to participant

Appendix C: Background Questionnaire

BACKGROUND QUESTIONNAIRE

1. Name in Japanese _____

2. Name in English _____

3. Home Town _

4. Sex (Male ◈ Female) 5. Age

6. Faculty (APM ◈ APS ◈ Other _____)

7. Mother Tongue _____

8. Length of English study (in months or years)

9. Age of first contact with English _____

10. Age of starting to study English

11. Level and length of study of other languages _____

_____

12. If you have experience travelling, living, or studying abroad, please write the name of country and the length of stay.
<Country Name> <Length>

_____ _____

_____ _____

_____ _____

13. If you have taken tests such as the TOEFL, TOEIC, or STEP, please write your score and year the test was taken.
<TOEFL>
Score_____ Year_____
<TOEIC>
Score_____ Year_____
<STEP>
Grade_____ Year_____
<Other_____>

Score_____ Year_____

14. Preferred method of contact（mobile ◈ mobile text ◈ APU email ◈ Other_____）

15. Contact info _____

Appendix D: CA Transcription Conventions

(Adapted from Jefferson, 2004)

`(.)`	Short untimed pause.
`(0.3) (2.6)`	Duration of silence in seconds.
`↑word` `↓word`	Pitch rise or fall in the next phrase.
`A: word [word` `B: [word`	Overlapping talk.
`ha ha, huh, heh, hnh`	Laughter, depending on the sounds produced.
`.hhh`	A dot-prefixed row indicates in-breath.
`wo:::rd`	Colons show extension of the sound before it.
`word`	Underscoring indicates some form of stress.
`A: word=` `B: =word`	Latching speech.
`°word°`	Utterance that is quieter than the surrounding talk.
`>word word<` `<word word>`	Inwards arrows show faster speech, outward slower.
`?`	Question mark indicates rising intonation.
`.`	Period indicates falling intonation.
`,`	Comma indicates a slight rise in pitch.
`-`	A hyphen indicates an abrupt stop in articulation.
`→`	Feature of interest to the analyst.
`((sobbing))`	Other details of the conversational scene.

References

Adelswärd, V. (1989). Laughter and dialogue: The social significance of laughter in institutional discourse. *Nordic Journal of Linguistics, 12*(02), 107-136. doi:doi:10.1017/S0332586500002018

Appel, J. (2010). Participation and instructed langauge learning. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics*. Houndmills: Palgrave MacMillan.

Archibald, A., Cogo, A., & Jenkins, J. (2011). *Latest trends in ELF research*. Newcastle upon Tyne: Cambridge Scholars Publishing.

Atkinson, D., Churchill, E., Nishino, T., & Okada, H. (2007). Alignment and interaction in a sociocognitive approach to second language acquisition. *The Modern Language Journal, 91*(2), 169-188.

Atkinson, J. M., & Heritage, J. (1984). *Structures of social action: Studies in conversation analysis*. Cambridge: Cambridge University Press.

BAAL. (2006). Recommendations on Good Practice in Applied Linguistics. Retrieved from http://www.baal.org.uk/about_goodpractice_full.pdf

Bachman, L. F. (1990). *Fundamental considerations in language testing* (Vol. 107). Oxford: Oxford University Press.

Bachman, L. F., & Palmer, A. S. (1989). The construct validation of self-ratings of communicative language ability. *Language Testing, 6*(1), 14-29.

Bardovi-Harlig, K., & Hartford, B. S. (1993). Learning the rules of academic talk: A Longitudinal study of pragmatic development. *Studies in Second Language Acquisition, 15*, 279-304.

Barrow, J. (2009). *Electronic dictionary use in novice L2 learner interaction.* (Unpublished

doctoral dissertation) Temple University.

Barrow, J. (2010). Electronic dictionary look-up practices of novice English learners. In T. Greer (Ed.), *Observing talk: Conversation analytic studies of second language interaction* (pp. 55-72). Tokyo: Pragmatics Special Interest Group of JALT.

Batstone, R. (2010a). Issues and options in sociocognition. In R. Batstone (Ed.), *Sociocognitive perspective on language use and language learning* (pp. 3-23). Oxford: Oxford University Press.

Batstone, R. (2010b). *Sociocognitive perspectives on language use and language learning*. Oxford: Oxford University Press.

Bilmes, J. (1986). *Discourse and behavior*. New York: Plenum Press.

Blum-Kulka, S., House, J., & Kasper, G. (1989). *Cross-cultural Pragmatics: Requests and Apologies*. Norwood, NJ: Ablex.

Breiteneder, A. (2005). The naturalness of English as a European lingua franca: The case of the 'third person -s'. *VIenna English Working PaperS (VIEWS), 14*, 3-26.

Brouwer, C. E. (2003). Word searches in NNS–NS interaction: Opportunities for language learning? *The Modern Language Journal, 87*(4), 534-545. doi:10.1111/1540-4781.00206

Brouwer, C. E. (2004). Doing pronunciation: A specific type of repair sequence. In R. Gardner & J. Wagner (Eds.), *Second language conversations* (pp. 93-113). London: Continuum.

Brouwer, C. E., Rasmussen, G., & Wagner, J. (2004). Embedded corrections in second language talk. In R. Gardner & J. Wagner (Eds.), *Second language conversations* (pp. 75-92). London: Continuum.

Brouwer, C. E., & Wagner, J. (2004). Developmental issues in second language conversation. *Journal of Applied Linguistics, 1*(1), 30-47.

Brown, J. D. (1999). The relative importance of persons, items, subtests and languages to TOEFL test variance. *Language Testing, 16*(2), 217-238.

Brown, J. H. (1994). Complex ecological systems. In G. A. Cowan, D. Pines, & D. Meltzer (Eds.), *Complexity: Metaphors, models, and reality* (pp. 419-449). Reading, MA: Addison-Wesley.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge; New York: Cambridge University Press.

Bryman, A. (2008). *Social research methods*. Oxford: Oxford University Press.

Buckwalter, P. (2001). Repair Sequences in Spanish L2 Dyadic Discourse: A Descriptive Study. *The Modern Language Journal, 85*(3), 380-397. doi:10.1111/0026-7902.00115

Cameron, L., & Deignan, A. (2006). The emergence of metaphor in discourse. *Applied Linguistics, 27*(4), 671-690. doi:10.1093/applin/aml032

Canagarajah, S. (2007). Lingua Franca English, Multilingual Communities, and Language Acquisition. *The Modern Language Journal, 91*, 923-939. doi:10.1111/j.1540-4781.2007.00678.x

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*, 1-47.

Carroll, D. (2004). Restarts in novice turn beginnings: Disfluencies or interactional achievements. In R. Gardner & J. Wagner (Eds.), *Second language conversations* (pp. 201-220). London: Continuum.

Carroll, D. (2005). Vowel-marking as an interactional resource in Japanese novice ESL conversation. In K. Richards & P. Seedhouse (Eds.), *Applying conversation analysis* (pp. 214-234). Houndmills, Basingstoke: Palgrave Macmillan.

Caspi, T. (2010). *A dynamic perspective on second language development*. (Unpublished

doctoral dissertation) University of Groningen, Netherlands. Retrieved from http://irs.ub.rug.nl/ppn/329338412

Cekaite, A. (2007). A child's development of interactional competence in a Swedish L2 classroom. *The Modern Language Journal, 91*(1), 45-62.

Chiarenza, A. C. (2010). *Word searches in L1 and L2 Italian conversation: Re-establishing intersubjectivity.* (Unpublished doctoral dissertation) University of Illinois at Urbana-Champaign.

Chomsky, N. (1986). *Knowledge of language: Its nature, origins and use*. New York: Praeger.

Cogo, A. (2010). Strategic use and perceptions of English as a Lingua Franca. *Poznań Studies in Contemporary Linguistics, 46*(3), 295–312. doi:10.2478/v10010-010-0013-7

Cogo, A., & Dewey, M. (2012). *Analysing English as a lingua franca: A corpus-driven investigation*. London: Continuum.

Cohen, A. D. (1986). Forgetting foreign language vocabulary. In B. Weltens, K. de Bot, & T. van Els (Eds.), *Language attrition in progress* (pp. 143-158). Dordrecht, Netherlands: Foris.

Cook, V. (2013). ELF: Central or atypical second language acquisition? In D. Singleton, J. A. Fishman, L. Aronin, & M. Ó Laoire (Eds.), *Current multilingualism: A new linguistic dispensation* (pp. 27-44). Berlin: De Gruyter Mouton.

Cooper, D. L. (1999). *Linguistic attractors: The cognitive dynamics of language acquisition and change*. Amsterdam: John Benjamins.

Cutrone, P. (2005). A case study examining backchannels in conversations between Japanese-British dyads. *Multilingua, 24*(3), 237-274. doi:10.1515/mult.2005.24.3.237

Cutrone, P. (2013). *Assessing pragmatic competence in the Japanese EFL context: Towards the learning of listener responses*. Newcaslte upon Tyne: Cambridge Scholars Publishing.

de Bot, K. (2008). Introduction: Second language development as a dynamic process [Special Issue]. *The Modern Language Journal, 92*(2), 166-178. doi:10.1111/j.1540-4781.2008.00712.x

de Bot, K., & Clyne, M. (1994). A 16-year longitudinal study of language attrition in Dutch immigrants in Australia. *Journal of Multilingual & Multicultural Development, 15*(1), 17-28.

de Bot, K., Lowie, W., Thorne, S. L., & Verspoor, M. (2013). Dynamic systems theory as a comprehensive theory of second language development. In M. Mayo, M. Gutierrez-Mangado, & M. Adrián (Eds.), *Contemporary Approaches to Second Language Acquisition* (pp. 199-220). Amsterdam: John Benjamins.

de Bot, K., Lowie, W., & Verspoor, M. (2007). A dynamic systems theory approach to second language acquisition. *Bilingualism: Language and Cognition, 10*(1), 7-21 and 51-55.

de Bot, K., & Weltens, B. (1995). Foreign language attrition. *Annual Review of Applied Linguistics, 15*(1), 151-164.

Deppermann, A. (2013). Conversation Analytic Studies of Multimodal Interaction [Special Issue] *Journal of Pragmatics* (Vol. 46).

Dings, A. (2014). Interactional competence and the development of alignment activity. *The Modern Language Journal, 98*(3), 742-756. doi:10.1111/modl.12120

Dowling, M. (2008). Reflexivity. In L. M. Given (Ed.), *The SAGE encyclopaedia of qualitative research methods* (Vol. 1 & 2, pp. 747-748). Los Angeles: Sage Publications.

Drake, A. V. (2013). *Turn-final or in English: A conversation analytic perspective*. Department of English. (Unpublished doctoral dissertation) University of Wisconsin-Madison.

Drew, P. (1995). Conversation analysis. In J. A. Smith, R. Hareé, & L. van Langenhove

(Eds.), *Rethinking methods in psychology* (pp. 64-79). London: Sage Publications.

Drew, P. (1997). "Open" class repair initiators in response to sequential sources of troubles in conversation. *Journal of Pragmatics, 28*(1), 69-101.

Drew, P. (2013). Turn design. In J. Sidnell & T. Stivers (Eds.), *The Handbook of Conversation Analysis* (pp. 131-149). Boston: Wiley-Blackwell.

Edwards, D., & Potter, J. (1992). *Discursive psychology*. London: Sage Publications.

Ellis, N. C. (2008). The dynamics of second language emergence: Cycles of language use, language change, and language acquisition. *The Modern Language Journal, 92*(2), 232-249. doi:10.1111/j.1540-4781.2008.00716.x

Ellis, N. C., & Larsen-Freeman, D. (2009a). Constructing a second language: Analyses and computational simulations of the emergence of linguistic constructions from usage. *Language Learning, 59*(s1), 90-125.

Ellis, N. C., & Larsen-Freeman, D. (Eds.). (2009b). *Language as a complex adaptive system*. West Sussex: Wiley-Blackwell.

Ellis, R. (2010). Theoretical pluralism in SLA: Is there a way forward? In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics* (pp. 23-51). Houndmills: Palgrave MacMillan.

Eskildsen, S. W. (2009). Constructing another language: Usage-based linguistics in second language acquisition. *Applied Linguistics, 30*(3), 335-357. doi:10.1093/applin/amn037

Eskildsen, S. W. (2011). The L2 inventory in action: Conversation analysis and usage. In G. Pallotti & J. Wagner (Eds.), *L2 learning as social practice: Conversation-analytic perspectives* (pp. 327-364). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Eskildsen, S. W. (2012). L2 negation constructions at work. *Language Learning, 62*(2), 335-

372.

Færch, C., & Kasper, G. (1983). Plans and strategies in foreign language communication. In C. Færch & G. Kasper (Eds.), *Strategies in interlanguage communication* (pp. 20–60). London: Longman.

Firth, A. (1996). The discursive accomplishment of normality: On 'lingua franca' English and conversation analysis. *Journal of Pragmatics, 26*(2), 237-259.

Firth, A. (2009). Doing not being a foreign language learner: English as a lingua franca in the workplace and (some) implications for SLA. *International Review of Applied Linguistics in Language Teaching, 47*(1), 127-156.

Fuller, J. M. (2003a). Discourse marker use across speech contexts: A comparison of native and non-native speaker performance. *Multilingua, 22*(2), 185-208.

Fuller, J. M. (2003b). Use of the discourse marker like in interviews. *Journal of Sociolinguistics, 7*(3), 365-377.

Funayama, I. (2002). Word-searches in cross-linguistic settings: Teaching-learning collaboration between native and non-native speakers. *Crossroads of Language, Interaction, and CUlture, 4*, 33-57.

Garfinkel, H. (1967). *Studies in Ethnomethodology*. Englewood Cliffs: Prentice-Hall.

Gell-Mann, M. (1994a). Complex adaptive systems. In G. A. Cowan, D. Pines, & D. Meltzer (Eds.), *Complexity: Metaphors, models, and reality* (pp. 17-45). Reading, MA: Addison-Wesley.

Gell-Mann, M. (1994b). *The quark and the jaguar: Adventures in the simple and the complex*. New York: W. H. Freeman.

Gell-Mann, M. (1995). What is complexity? *Complexity, 1*(1), 16-19.

Gibbs, R. W., & Cameron, L. (2008). The social-cognitive dynamics of metaphor

performance. *Cognitive Systems Research, 9*(1-2), 64-75. doi:http://dx.doi.org/10.1016/j.cogsys.2007.06.008

Gibson, J. J. (1977). The Theory of Affordances. In R. Shaw & J. Bransford (Eds.), *Perceiving, Acting and Knowing*. Hillsdale, NJ: Erlbaum.

Gleick, J. (1987). *Chaos: Making a new science*. New York: Viking.

Glenn, P. J. (1995). Laughing at and laughing with: Negotiations of participant alignments through conversational laughter. *Situated order: Studies in the social organization of talk and embodied activities*, 43-56.

Goffman, E. (1981a). Footing. In E. Goffman (Ed.), *Forms of Talk* (pp. 124-159.). Philadelphia: University of Pennsylvania Press.

Goffman, E. (1981b). *Forms of talk*. Philadelphia: University of Pennsylvania Press.

Goodwin, C. (1980). Restarts, pauses, and the achievement of a state of mutual gaze at turn-beginning. *Sociological Inquiry, 50*(3-4), 272-302.

Goodwin, C. (1986). Gestures as a resource for the organization of mutual orientation. *Semiotica, 6*(1-2), 29--49.

Goodwin, C. (1995). Co-constructing meaning in conversations with an aphasic man. *Research on Language and Social Interaction, 28*(3), 233-260.

Goodwin, C. (1996). Transparent vision. In E. Ochs, E. A. Schegloff, & S. A. Thompson (Eds.), *Interaction and grammar* (pp. 370-404). Cambridge: Cambridge University Press.

Goodwin, C. (2000). Gesture, aphasia, and interaction. In D. McNeill (Ed.), *Language and gesture* (pp. 84-98). Cambridge: Cambridge University Press.

Goodwin, M. H. (1983a). Aggravated correction and disagreement in children's conversations. *Journal of Pragmatics, 7*(6), 657-677.

Goodwin, M. H. (1983b). Searching for a word as an interactive activity. In J. N. Deely & M.

D. Lenhart (Eds.), *Semiotics* (pp. 129-137). New York: Plenum.

Goodwin, M. H., & Goodwin, C. (1986). Gesture and coparticipation in the activity of searching for a word. *Semiotica, 62*(1/2), 51-75.

Greer, T. (2008). Accomplishing difference in bilingual interaction: Translation as backwards-oriented medium repair. *Multilingua-Journal of Cross-Cultural and Interlanguage Communication, 27*(1-2), 99-127.

Greer, T. (2013). Word search sequences in bilingual interaction: Codeswitching and embodied orientation toward shifting participant constellations. *Journal of Pragmatics, 57*, 100-117.

Gribbin, J. (2004). *Deep simplicity*. London: Penguin Books.

Gullberg, M. (2006). Some reasons for studying gesture and second language acquisition (Hommage a Adam Kendon). *IRAL - International Review of Applied Linguistics in Language Teaching, 44*(2), 103-124. Retrieved from http://dx.doi.org/10.1515/IRAL.2006.004

Gullberg, M. (2011). Multilingual multimodality: Communicative difficulties and their solutions in second-language use. In J. Streeck, C. Goodwin, & C. LeBaron (Eds.), *Embodied interaction: Language and body in the material world* (pp. 137-151). New York: Cambridge University Press.

Hall, J. K. (1993). The role of oral practices in the accomplishment of our everyday lives: The sociocultural dimension of interaction with implications for the learning of another language. *Applied Linguistics, 14*, 145-166.

Hall, J. K. (1995a). "Aw, man, where you goin'?": Classroom interaction and the development of L2 interactional competence. *Issues in Applied Linguistics, 6*(2), 37-62.

Hall, J. K. (1995b). (Re)creating our worlds with words: A sociohistorical perspective of face-

to-face interaction. *Applied Linguistics, 16*, 206-232.

Hall, J. K. (2004). Language Learning as an interactional achievement. *The Modern Language Journal, 88*(4), 607-612.

Hall, J. K., Hellermann, J., & Pekarek Doehler, S. (2011). *L2 interactional competence and development* (Vol. 56). Bristol: Multilingual Matters.

Hall, J. K., & Pekarek Doehler, S. (2011). L2 interactional competence and development. In J. K. Hall, J. Hellermann, & S. P. Doehler (Eds.), *L2 interactional competence and development* (Vol. 56, pp. 1-15). Bristol: Multilingual Matters.

Harklau, L. (2008). Developing qualitative longitudinal case studies of advanced language learners. In L. Ortega & H. Byrnes (Eds.), *The longitudinal study of advanced L2 capacities* (pp. 23-35). New York: Routledge.

Hauser, E. (2010). Other-correction of language form following a repair sequence. In G. Kasper, H. T. Nguyen, D. R. Yoshimi, & J. K. Yoshioka (Eds.), *Pragmatics and language learning* (Vol. 12, pp. 277-296). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Hauser, E. (2011). On the danger of exogenous theory in CA-for-SLA: A response to Hellermann and Cole (2009). *Applied Linguistics, 32*(3), 348-352.

Hauser, E. (2013a). Beyond intersubjectivity: Task orientation and first language use in foreign language discussions. *Pragmatics and Society, 4*(3), 285-316. doi:doi:10.1075/ps.4.3.02hau

Hauser, E. (2013b). Expanding resources for marking direct reported speech. In T. Greer, D. Tatsuki, & C. Roever (Eds.), *Pragmatics and language learning* (Vol. 13, pp. 29-53). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Hauser, E. (2013c). Stability and change in one adult's second language English negation.

Language Learning, 63(3), 463–498. doi:10.1111/lang.12012

Hauser, E. (2014). Embodied uses of electronic bilingual dictionaries. *JALT Journal, 36*(1), 5-23.

Hayashi, M. (2003). Language and the body as resources for collaborative action: A study of word searches in Japanese conversation. *Research on Language and Social Interaction, 36*(2), 109-141.

Hayashi, M. (2005). Referential problems and turn construction: An exploration of an intersection between grammar and interaction. *Text, 25*(4), 437-468. doi:10.1515/text.2005.25.4.437

Hayashi, M. (2009). Marking a 'noticing of departure': Eh-prefaced turns in Japanese conversation. *Journal of Pragmatics, 41*(10), 2100-2129.

Hazel, S., Mortensen, K., & Rasmussen, G. (2014). Introduction: A body of resources - CA studies of social conduct. *Journal of Pragmatics, 65*, 1-9. doi:http://dx.doi.org/10.1016/j.pragma.2013.10.007

He, A. W. (2004). CA for SLA: Arguments from the Chinese language classroom. *Modern Language Journal, 88*(4), 568-582.

He, A. W., & Young, R. F. (1998). Language proficiency interviews: A discourse approach. In R. F. Young & A. W. He (Eds.), *Talking and testing: Discourse approaches to the assessment of oral proficiency* (pp. 1-24). Philadelphia: John Benjamins.

Hellermann, J. (2006). Classroom interactive practices for developing L2 literacy: A microethnographic study of two beginning adult learners of English. *Applied Linguistics, 27*(3), 377-404.

Hellermann, J. (2007). The development of practices for action in classroom dyadic interaction: Focus on task openings. *The Modern Language Journal, 91*(1), 83-96.

Hellermann, J. (2008). *Social actions for classroom language learning*. Clevedon: Multilingual Matters.

Hellermann, J. (2009a). Looking for evidence of language learning in practices for repair: A case study of self-initiated self-repair by an adult learner of English. *Scandinavian Journal of Educational Research, 53*(2), 113-132.

Hellermann, J. (2009b). Practices for dispreferred responses using no by a learner of English. *International Review of Applied Linguistics in Language Teaching, 47*(1), 95-126.

Hellermann, J. (2011). Members' methods, members' competencies: Looking for evidence of language learning in longitudinal investigations of other-initiated repair. In J. K. Hall, J. Hellermann, & S. Pekarek Doehler (Eds.), *L2 interactional competence and development* (Vol. 56, pp. 147-172). Bristol: Multilingual Matters.

Hellermann, J., & Cole, E. (2008). Practices for social interaction in the language-learning classroom: Disengagements from dyadic task Interaction. *Applied Linguistics, 30*(2), 186-215.

Hellermann, J., & Doehler, S. P. (2010). On the contingent nature of language-learning tasks. *Classroom Discourse, 1*(1), 25-45.

Heritage, J. (1984a). A change-of-state token and aspects of its sequential placement. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 299-345). Cambridge: Cambridge University Press.

Heritage, J. (1984b). *Garfinkel and ethnomethodology*. Cambridge: Polity Press.

Heritage, J. (1988). Explanations as accounts: A conversation analytic perspective. In C. Antaki (Ed.), *Analysing everyday explanation: A casebook of methods* (pp. 127-144). London; Newbury Park, CA: Sage Publications.

Heritage, J. (1997). Conversation analysis and institutional talk: Analyzing data. In D.

Silverman (Ed.), *Qualitative research: Theory, method and practice* (pp. 161-182). London; Thousand Oaks, CA: Sage Publications.

Heritage, J. (1999). Conversation analysis at century's end: Practices of talk-in-interaction, their distributions, and their outcomes. *Research on Language and Social Interaction, 32*(1-2), 69-76.

Heritage, J. (2002). Oh-prefaced responses to assessments: A method of modifying agreement/disagreement. In C. E. Ford, B. A. Fox, & S. A. Thompson (Eds.), *The language of turn and sequence* (pp. 196–224). Oxford: Oxford University Press.

Heritage, J. (2007). Intersubjectivity and progressivity in person (and place) reference. In T. Stivers & N. J. Enfield (Eds.), *Person reference in interaction: Linguistic, cultural and social perspectives* (pp. 255-280). Cambridge: Cambridge University Press.

Heritage, J. (2012a). The epistemic engine: Sequence organization and territories of knowledge. *Research on Language and Social Interaction, 45*(1), 30-52.

Heritage, J. (2012b). Epistemics in action: Action formation and territories of knowledge. *Research on Language and Social Interaction, 45*(1), 1-29.

Heritage, J. (2013). Epistemics in conversation. In J. Sidnell & T. Stivers (Eds.), *The Handbook of Conversation Analysis* (pp. 370-394). Boston: Wiley-Blackwell.

Heritage, J., & Raymond, G. (2005). The terms of agreement: Indexing epistemic authority and subordination in talk-in-Interaction. *Social Psychology Quarterly, 68*(1), 15-38. doi:10.1177/019027250506800103

Hill, T. (1997). *The development of pragmatic competence in an EFL context.* (Unpublished doctoral dissertation) Temple University, Tokyo Japan.

Hilton, H. (2008). The link between vocabulary knowledge and spoken L2 fluency. *The Language Learning Journal, 36*(2), 153-166. doi:10.1080/09571730802389983

Holland, J. H. (1992). Complex adaptive systems. *Daedalus, 121*, 17-30.

Holland, J. H. (1995). *Hidden order: How adaptation builds complexity*. Reading, MA: Perseus.

Holland, J. H. (1998). *Emergence: From chaos to order*. New York: Basic Books.

Hosoda, Y. (2000). Other-repair in Japanese conversations between nonnative and native speakers. *Issues in Applied Linguistics, 11*(1), 39-63.

Hosoda, Y. (2006). Repair and relevance of differential language expertise in second language conversations. *Applied Linguistics, 27*(1), 25-50. doi:10.1093/applin/ami022

Housen, A., & Kuiken, F. (2009). Complexity, accuracy, and fluency in second language acquisition. *Applied Linguistics, 30*(4), 461-473. doi:10.1093/applin/amp048

Hutchby, I., & Wooffitt, R. (1998). *Conversation Analysis*. Cambridge: Polity Press.

Huth, T. (2006). Negotiating structure and culture: L2 learners' realization of L2 compliment-response sequences in talk-in-interaction. *Journal of Pragmatics, 38*(12), 2025-2050.

Huth, T., & Taleghani-Nikazm, C. (2006). How can insights from conversation analysis be directly applied to teaching L2 pragmatics? *Language Teaching Research, 10*(1), 53-79.

Hymes, D. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics: Selected readings* (pp. 269-293). Harmondsworth: Penguin.

Hymes, D. (1974). *Foundations in sociolinguistics: An ethnographic approach*. Philadelphia: University of Pennsylvania Press.

Iba, T. (1998). *Fukuzatsukei nyumon [Introduction to complex systems]*. Tokyo: NTT Pub.

Ishida, M. (2009). Development of interactional competence: Changes in the use of *ne* in L2 Japanese during study abroad. In H. T. Nguyen & G. Kasper (Eds.), *Talk-in-interaction: Multilingual perspectives* (pp. 351-385). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Ishida, M. (2011). Engaging in another person's telling as a recipient in L2 Japanese: Development of interactional competence during one-year study abroad In G. Pallotti & J. Wagner (Eds.), *L2 learning as social practice: Conversation-analytic perspectives* (pp. 45-86). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Iverson, J. M., & Goldin-Meadow, S. (1998). Why people gesture when they speak. *Nature, 396*, 228-228. doi:10.1038/24300

Jefferson, G. (1973). A case of precision timing in ordinary conversation: overlapped tag-positioned address terms in closing sequences. *Semiotica, 9*(1), 47-96.

Jefferson, G. (1979). A technique for inviting laughter and its subsequent acceptance declination. In G. Psathas (Ed.), *Everyday Language; Studies in Ethnomethodology* (pp. 79–96). New York: Irvington.

Jefferson, G. (1987). On exposed and embedded correction in conversation. In G. Button & J. R. E. Lee (Eds.), *Talk and social organization* (pp. 86-100). Clevedon, UK: Multilingual Matters.

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In G. H. Lerner (Ed.), *Conversation analysis: Studies from the first generation* (pp. 13-23). Philadelphia: John Benjamins.

Jefferson, G., Sacks, H., & Schegloff, E. (1987). Notes on laughter in the pursuit of intimacy. In G. Button & J. R. E. Lee (Eds.), *Talk and social organisation* (pp. 152-205). Clevedon, UK: Multilingual Matters.

Jenkins, J. (2007). *English as a lingua franca: Attitude and identity*. Oxford: Oxford University Press.

Jenkins, J. (2015). Repositioning English and multilingualism in English as a lingua franca.

Englishes in Practice, 2(3), 49-85.

Jenkins, J., Cogo, A., & Dewey, M. (2011). Review of developments in research into English as a lingua franca. *Language Teaching, 44*(03), 281-315. doi:doi:10.1017/S0261444811000115

Jenks, C. (2010). Adaptation in online voice-based chat rooms: Implications for language learning. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics* (pp. 147-163). Houndmills: Palgrave MacMillan.

Jessner, U. (2008). A DST model of multilingualism and the role of metalinguistic awareness. *The Modern Language Journal, 92*(2), 270-283. doi:10.1111/j.1540-4781.2008.00718.x

Jewitt, C., & Cowan, K. (2014). Multimodality, discourse and learning [Special Issue]. *Classroom Discourse, 5*(1).

Johnson, N. F. (2007). *Two's company, three is complexity*. Oxford: Oneworld Publications.

Johnson, S. (2001). *Emergence: The connected lives of ants, brains, cities and software*. New York: Scribner.

Kachru, B. B. (1985). Standards, codification and sociolinguistic realm: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.), *English in the world* (pp. 11-30). Cambridge: Cambridge University Press.

Kamio, A. (1994). The theory of territory of information: The case of Japanese. *Journal of Pragmatics, 21*(1), 67-100.

Kamio, A. (1997). *Territory of information* (Vol. 48). Amsterdam: John Benjamins.

Kärkkäinen, E. (2003). *Epistemic stance in English conversation*. Amsterdam; Philadelphia: John Benjamins.

Kasper, G. (1997). “A” stands for acquisition: A response to Firth and Wagner. *The Modern Language Journal, 81*(3), 307-312. doi:10.1111/j.1540-4781.1997.tb05483.x

Kasper, G. (2006a). Beyond repair. *AILA Review, 19*, 83-99.

Kasper, G. (2006b). Speech acts in interaction: Towards discursive pragmatics. In K. Bardovi-Harlig, C. J. Félix-Brasdefer, & A. S. Omar (Eds.), *Pragmatics and language learning* (Vol. 11, pp. 281-314). Honolulu: National Foreign Language Resource Center, University of Hawaii at Manoa.

Kasper, G. (2009). Locating cognition in second language interaction and learning: Inside the skull or in public view? *IRAL-International Review of Applied Linguistics in Language Teaching, 47*(1), 11-36.

Kasper, G., & Kellerman, E. (1997). *Communication strategies*. London: Longman.

Kasper, G., & Rose, K. R. (2002). *Pragmatic development in a second language*. Malden, MA; Oxford: Blackwell.

Kaur, J. (2009). Pre-empting problems of understanding in English as a lingua franca. In A. Mauranen & E. Ranta (Eds.), *English as a lingua franca: Studies and findings* (pp. 107-123). Newcastle upon Tyne: Cambridge Scholars Publishing.

Kaur, J. (2011). "Doing being a language expert": The case of the ELF speaker. In A. Archibald, A. Cogo, & J. Jenkins (Eds.), *Latest Trends in ELF Research* (pp. 53-75). Newcastle upon Tyne: Cambridge Scholars Publishing.

Kim, Y. (2009). *Achieving reference in talk-in-interaction: L1 and L2 English speakers' conversation*. Department of Second Language Studies. (Unpublished doctoral dissertation) University of Hawaii at Manoa.

Kitzinger, C. (2013). Repair. In J. Sidnell & T. Stivers (Eds.), *The Handbook of Conversation Analysis*. Boston: Wiley-Blackwell.

Koizumi, R., & In'nami, Y. (2013). Vocabulary knowledge and speaking proficiency among second language learners from novice to intermediate levels. *Journal of Language*

Teaching and Research, 4(5), 900-913. doi:10.4304/jltr.4.5.900-913

Koshik, I., & Seo, M.-S. (2012). Word (and other) search sequences initiated by language learners. *Text & Talk, 32*(2), 167–189.

Kramsch, C. (1986). From language proficiency to interactional competence. *The Modern Language Journal, 70*, 366-372.

Kramsch, C. (2003). *Language acquisition and language socialization: Ecological perspectives*. London: Continuum.

Kramsch, C. (2008). Ecological perspectives on foreign language education. *Language Teaching, 41*(03), 389-408.

Kurhila, S. (2005). Different orientations to grammatical correctness. In K. Richards & P. Seedhouse (Eds.), *Applying conversation analysis* (pp. 143-158). Basingstoke, Hampshire: Palgrave Macmillan.

Kurhila, S. (2006). *Second language interaction*. Amsterdam; Philadelphia: John Benjamins.

Kuroshima, S. (2010). Another look at the service encounter: Progressivity intersubjectivity and trust in a Japanese sushi restaurant. *Journal of Pragmatics, 42*, 856-869.

Laakso, M., & Klippi, A. (1999). A closer look at the 'hint and guess' sequences in aphasic conversation. *Aphasiology, 13*(4-5), 345-363.

Labov, W., & Fanshel, D. (1977). *Therapeutic discourse: Psychotherapy as conversation*. New York: Academic Press.

Landsberger, H. A. (1958). *Hawthorne revisited: Management and the worker, its critics, and developments in human relations in industry*. Ithaca, NY: Cornell University.

Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics, 18*(2), 141-165.

Larsen-Freeman, D. (2004). CA for SLA? It all depends. *The Modern Language Journal,*

88(4), 603-607.

Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics, 27*(4), 590-619. doi:10.1093/applin/aml029

Larsen-Freeman, D. (2010). Having and doing: Learning from a complexity theory perspective. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conseptualising 'learning' in applied linguistics* (pp. 52-68). Houndmills: Palgrave Macmillan.

Larsen-Freeman, D. (2012). Complexity theory. In S. M. Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquisition* (pp. 73-87). London; New York: Routledge.

Larsen-Freeman, D., & Cameron, L. (2008a). *Complex systems and applied linguistics*. Oxford: Oxford University Press.

Larsen-Freeman, D., & Cameron, L. (2008b). Research methodology on language development from a complex systems perspective. *The Modern Language Journal, 92*(2), 200-213.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lee, N., Mikesell, L., Joaquin, A. D. L., Mates, A. W., & Schumann, J. H. (2009). *The interactional instinct: The evolution and acquisition of language*. Oxford: Oxford University Press.

Levinson, S. C. (1983). *Pragmatics*. Cambridge; New York: Cambridge University Press.

Lorenz, E. N. (1993). *The essence of chaos*. Seattle: University of Washington Press.

Lowie, W., & Verspoor, M. (2015). Variability and variation in second language acquisition orders: A dynamic reevaluation. *Language Learning, 65*(1), 63-88.

Lowie, W., Verspoor, M., & de Bot, K. (2009). A dynamic view of second language development across the lifespan. In K. de Bot & R. W. Scharuf (Eds.), *Language development over the lifespan*. New York: Psychology Press.

MacBeth, D. (2004). The relevance of repair for classroom correction. *Language in Society, 33*(05), 703-736.

Markee, N. (2008). Toward a learning behavior tracking methodology for CA-for-SLA. *Applied Linguistics, 29*(3), 404-427.

Matsumoto, Y. (2011). Successful ELF communications and implications for ELT: Sequential analysis of ELF pronunciation negotiation strategies. *The Modern Language Journal, 95*(1), 97-114.

Mauranen, A. (2006). Signaling and preventing misunderstanding in English as lingua franca communication. *International Journal of the Sociology of Language, 177*, 123–150. doi:10.1515/IJSL.2006.008,

Maynard, D. W. (2013). Defensive mechanisms: I-mean-prefaced utterances in complaint and other conversational sequences. In M. Hayashi, G. Raymon, & J. Sidnell (Eds.), *Conversational Repair and Human Understanding* (pp. 198-233). Cambridge: Cambridge University Press.

McHoul, A. (1990). The organization of repair in classroom talk. *Language in Society, 19*(3), 349-377.

Miller, J. H., & Page, S. E. (2007). *Complex adaptive systems: An introduction to computational models of social life*. Princeton: Princeton University Press

Mondada, L., & Oloff, F. (2011). Gestures in overlap: The situated establishment of speakership. In G. Stam & M. Ishino (Eds.), *Integurating gestures: The interdisciplinary nature of gesture* (pp. 321-338). Amsterdam: John Benjamins.

Mori, J. (2010). Learning language in real time: A case study of the Japanese demonstrative pronoun *are* in word-search sequences. *Pragmatics and language learning, 12*, 15-42.

Mori, J., & Hasegawa, A. (2009). Doing being a foreign language learner in a classroom: Embodiment of cognitive states as social events. *IRAL - International Review of Applied Linguistics in Language Teaching, 47*(1), 65-94. doi:10.1515/iral.2009.004

Murray, N. (2012). English as a lingua franca and the development of pragmatic competence. *ELT Journal, 66*(3), 318-326. doi:10.1093/elt/ccs016

Nevile, M. (2015). The embodied turn in research on language and social interaction. *Research on Language and Social Interaction, 48*(2), 121-151. doi:10.1080/08351813.2015.1025499

Nguyen, H. T. (2003). *The development of communication skills in the practice of patient consultation among pharmacy students.* (Unpublished doctoral dissertation) University of Wisconsin-Maddison.

Nguyen, H. T. (2006). Constructing 'expertness': A novice pharmacist's development of interactional competence in patient consultations. *Communication & Medication, 3*(2), 147-160.

Nguyen, H. T. (2008). Sequence organization as local and longitudinal achievement. *Text & Talk-An Interdisciplinary Journal of Language, Discourse Communication Studies, 28*(4), 501-528.

Nguyen, H. T. (2011a). Achieving recipient-design longitudinally: Evidence from a pharmacy intern in patient consultations. In J. K. Hall, J. Hellermann, & S. Pekarek Doehler (Eds.), *L2 interactional competence and development* (Vol. 56, pp. 173-205). Bristol: Multilingual Matters.

Nguyen, H. T. (2011b). A longitudinal microanalysis of a second language learner's

participation. In G. Pallotti & J. Wagner (Eds.), *L2 learning as social practice: Conversation-analytic perspectives* (pp. 17-44). Honolulu: National Foreign Langauge Resource Center, University of Hawaii at Manoa.

Nguyen, T. T. M. (2005). Pragmatic development in L2 use of criticisms: A case of Vietnamese EFL learners. In S. H. Foster-Cohen, M. del Pilar Garcia-Mayo, & J. Cenoz (Eds.), *EURO SLA yearbook: Volume 5* (pp. 163-194). Philadelphia: John Benjamins.

Nishizaka, A. (2015). Facts and normative connections: Two different worldviews. *Research on Language and Social Interaction, 48*(1), 26-31. doi:10.1080/08351813.2015.993840

Oelschlaeger, M. L., & Damico, J. S. (2000). Partnership in conversation: A study of word search strategies. *Journal of communication disorders, 33*(3), 205-225.

Oelschlaeger, M. L., & Damico, J. S. (2003). Word searches in aphasia. In C. Goodwin (Ed.), *Conversation and brain damage* (pp. 211-227). Oxford: Oxford University Press.

Ohta, A. S. (2001). *Second language acquisition processes in the classroom: Learning Japanese*. Mahwah, NJ: Lawrence Erlbaum Associates.

Ortega, L., & Iberri-Shea, G. (2005). Longitudinal research in second language acquisition: Recent trends and future directions. *Annual Review of Applied Linguistics, 25*, 26-45.

Pallotti, G. (2001). External appropriations as a strategy for participating in intercultural multi-party conversations. In D. Aldo, S. Günthner, & F. Orletti (Eds.), *Culture in communication: Analyses of intercultural situations* (pp. 295-334). Amsterdam: John Benjamins.

Park, J. E. (2007). Co-construction of nonnative speaker identity in cross-cultural interaction. *Applied Linguistics, 28*(3), 339-360. doi:10.1093/applin/amm001

Pekarek Doehler, S., & Pochon-Berger, E. (2011). Developing "methods" for interaction: a cross-sectional study of disagreement sequences in French L2. In J. K. Hall, J.

Hellermann, & S. P. Doehler (Eds.), *L2 interactional competence and development* (pp. 206-243). Brilstol: Multilingual Matters.

Phillipson, R. (2008). The new linguistic imperial order: English as an EU lingua franca or lingua frankensteinia? . *'Unions: past-present-future', Journal of Irish and Scottish Studies, 1*(2), 189-2003.

Pike, K. L. (1967). *Language in relation to a unified theory of the structure of human behaviour*. The Hague: Mouton.

Pillet-Shore, D. (2012). Greeting: Displaying stance through prosodic recipient design. *Research on Language and Social Interaction, 45*(4), 375-398. doi:10.1080/08351813.2012.724994

Plaza–Pust, C. (2008). Dynamic systems theory and universal grammar: Holding up a turbulent mirror to development in grammars. *The Modern Language Journal, 92*(2), 250-269. doi:10.1111/j.1540-4781.2008.00717.x

Pomerantz, A. (1984). Agreeing and disagreeing with assessments: Some features of preferred/dispreferred turn shapes. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 57-101). Cambridge: Cambridge University Press.

Rasmussen, G., Hazel, S., & Mortensen, K. (2014). A body of resources – CA studies of social conduct [Special Issue] *Journal of Pragmatics* (Vol. 65, pp. 1-9).

Raymond, G. (2003). Grammar and social organization: Yes/no interrogatives and the structure of responding. *American Sociological Review, 68*(6), 939-967. Retrieved from http://www.jstor.org/stable/1519752

Raymond, G., & Heritage, J. (2006). The epistemics of social relations: Owning grandchildren. *Language in Society, 35*(5), 677-705.

doi:doi:10.1017/S0047404506060325

Richards, J. C., & Renandya, W. A. (2002). *Methodology in language teaching: An anthology of current practice*. Cambridge: Cambridge University Press.

Robinson, B. F., & Mervis, C. B. (1998). Disentangling early language development: Modeling lexical and grammatical acquisition using and extension of case-study methodology. *Developmental psychology, 34*(2), 363-375.

Rommetveit, R. (1976). On the architecture of intersubjectivity. In R. Rommetveit & R. M. Blakar (Eds.), *Studies of language, thought, and verbal communication* (pp. 93-107). New York: Academic Press.

Rommetveit, R. (1985). Language acquisition as increasing linguistic structuring of experience and symbolic behavior control. In J. V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 183-204). New York: Cambridge University Press.

Roy, B. C., Frank, M. C., & Roy, D. (2009, July 29-August 1). *Exploring word learning in a high-density longitudinal corpus.* Paper presented at the Proceedings of the 31st Annual Meeting of the Cognitive Science Society, Amsterdam, Netherlands.

Sacks, H. (1989a). Lecture six: The M. I. R. membership categorization device. In G. Jefferson (Ed.), *Harvey Sacks lectures 1964-1965* (pp. 89-99). Dordrecht, Netherlands: Kluwer Academic Publisher.

Sacks, H. (1992). *Lectures on conversation (Vols. I & II, edited by G. Jefferson)*. Cambridge, MA: Blackwell.

Sacks, H. (Ed.) (1989b). *Harvey Sacks lectures 1964-1965*. Dordrecht Netherlands: Kluwer Academic Publisher.

Sacks, H., Schegloff, E., & Jefferson, G. (1974). A simplest systematics for the organization

of turn-taking for conversation. *Language, 50*(4), 696-735.

Sacks, H., & Schegloff, E. A. (1979). Two preferences in the organization of reference to persons in conversation and their interaction. In G. Psathas (Ed.), *Everyday language: Studies in ethnomethodology* (pp. 15-21). New York: Irvington Publishers.

Sardar, Z., & Abrams, I. (2004). *Introducing chaos*. Cambridge: Icon Books.

Schegloff, E. (1979). The relevance of repair to syntax-for-conversation. *Syntax and Semantics, 12*, 261-286.

Schegloff, E. (1984). On some gestures' relation to talk. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 266-296). Cambridge: Cambridge University Press.

Schegloff, E. (1993). Reflections on quantification in the study of conversation. *Research on Language and Social Interaction, 26*(1), 99-128.

Schegloff, E., Jefferson, G., & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language, 53*(2), 361-382.

Scholz, R. W., & Tietje, O. (2002). *Embedded case study methods: Integrating quantitative and qualitative knowledge*. Thousand Oaks: Sage Publications.

Seedhouse, P. (2004). *The interactional architecture of the language classroom: A conversation analysis perspective*. Malden, MA: Blackwell.

Seedhouse, P. (2005). Conversation analysis and language learning. *Language Teaching, 38*(4), 165-187.

Seedhouse, P. (2010a). A framework for conceptualising learning. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics* (pp. 240-256). Houndmills: Palgrave MacMillan.

Seedhouse, P. (2010b). Locusts, snowflakes, and recasts: Complexity theory and spoken

interaction. *Classroom Discourse, 1*(1), 4-24.

Seedhouse, P. (2015). L2 classroom interaction as a complex adaptive system. In N. Markee (Ed.), *The handbook of classroom discourse and interaction* (pp. 373-389). Oxford: Wiley-Blackwell.

Seedhouse, P., & Walsh, S. (2010). Learning a second language through classroom interaction. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics* (pp. 127-146). Houndmills: Palgrave MacMillan.

Seidlhofer, B. (2001). Closing a conceptual gap: The case for a description of English as a lingua franca. *International Journal of Applied Linguistics, 11*(2), 133-158.

Seidlhofer, B. (2009). Common ground and different realities: world Englishes and English as a lingua franca. *World Englishes, 28*(2), 236-245. doi:10.1111/j.1467-971X.2009.01592.x

Seidlhofer, B. (2011). *Understanding English as a lingua franca*. Oxford: Oxford University Press.

Seo, M.-S., & Koshik, I. (2010). A conversation analytic study of gestures that engender repair in ESL conversational tutoring. *Journal of Pragmatics, 42*(8), 2219-2239.

Sert, O. (2013). Epistemic status check as an interactional phenomenon in instructed learning settings. *Journal of Pragmatics, 45*(1), 13-28.

Sert, O., & Walsh, S. (2013). The interactional management of claims of insufficient knowledge in English language classrooms. *Language and Education, 27*(6), 542-565. doi:10.1080/09500782.2012.739174

Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational researcher, 27*(2), 4-13.

Shea, D. P. (1994). Perspective and production: Structuring conversational participation across cultural borders. *Pragmatics, 4*, 357-389.

Siegel, A. (2015). Social epistemics for analyzing longitudinal language learner development. *International Journal of Applied Linguistics, 25*(1), 83-104. doi:10.1111/ijal.12052

Silverman, D. (2006). *Interpreting qualitative data: methods for analysing talk, text and interaction* (3rd ed.). London: Sage Publications.

Sinclair, J., & Coulthard, M. (1975). *Towards an analysis of discourse*. Oxford: Oxford University Press.

Smith, J., & Jenks, C. (2006). *Qualitative complexity*. London: Routledge.

Smith, L. B., & Thelen, E. (2003). Development as a dynamic system. *Trends in cognitive sciences, 7*(8), 343-348.

Spoelman, M., & Verspoor, M. (2010). Dynamic patterns in development of accuracy and complexity: A longitudinal case study in the acquisition of Finnish. *Applied Linguistics, 31*(4), 532-553.

Steenbeek, H., Jansen, L., & van Geert, P. (2012). Scaffolding dynamics and the emergence of problematic learning trajectories. *Learning and Individual Differences, 22*(1), 64-75.

Steensig, J., & Heinemann, T. (2015). Opening up codings? *Research on Language and Social Interaction, 48*(1), 20-25. doi:10.1080/08351813.2015.993838

Stivers, T. (2015). Coding social interaction: A heretical approach in conversation analysis? *Research on Language and Social Interaction, 48*(1), 1-19. doi:10.1080/08351813.2015.993837

Stivers, T., & Robinson, J. D. (2006). A preference for progressivity in interaction. *Language in Society, 35*(3), 367-392. doi:doi:10.1017/S0047404506060179

Stokoe, E. (2008). Dispreferred actions and other interactional breaches as devices for occasioning audience laughter in television “sitcoms”. *Social Semiotics, 18*(3), 289-307. doi:10.1080/10350330802217071

Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 64-81). Cambridge: Cambridge University Press.

Takahashi, T., & Beebe, L. M. (1987). The development of pragmatic competence by Japanese learners of English. *JALT Journal, 8*, 131-155.

Taleghani-Nikazm, C. (2014). *From searching for words into bodily enactment*. Paper presented at the 4th International Conference on Conversation (ICCA), Los Angeles.

Tanaka, H. (1999). *Turn-taking in Japanese conversation: A study in grammar and interaction*. Amsterdam; Philadelphia: John Benjamins.

Tarone, E. (1983). Some thoughts on the notion of communication strategy. In C. Færch & G. Kasper (Eds.), *Strategies in interlanguage communication* (pp. 61-74). London: Longman.

ten Have, P. (1999). *Doing conversation analysis: A practical guide*. London: Sage Publications.

The Five Graces Group. (2009). Language is a complex adaptive system: Position paper. *Language Learning, 59*, 1-26. doi:10.1111/j.1467-9922.2009.00533.x

Thelen, E., & Smith, L. B. (1994). *A dynamic systems approach to the development of cognition and action*. Cambridge, MA: The MIT press.

Theodórsdóttir, G. (2011). Language learning activities in real-life situations: Insisting on TCU completion in second language talk. In G. Pallotti & J. Wagner (Eds.), *L2 learning as social practice: Conversation-analytic perspectives* (pp. 185-208). Honolulu: National Foreign Langauge Resource Center, University of Hawaii at Manoa.

Thomas, M. (1989). The acquisition of English articles by first- and second-language learners. *Applied Psycholinguistics, 10*(3), 335-355.

Tomasello, M. (2000). First steps toward a usage-based theory of language acquisition. *Cognitive linguistics, 11*(1/2), 61-82.

Tomasello, M. (2009). *Constructing a language: A usage-based theory of language acquisition*. Boston: Harvard University Press.

van Compernolle, R. A. (2010). Incidental microgenetic development in second-language teacher-learner talk-in-interaction. *Classroom Discourse, 1*(1), 66-81. doi:10.1080/19463011003750608

van Dijk, M., van Geert, P., Korecky-Kröll, K., Maillochon, I., Laaha, S., Dressler, W. U., & Bassano, D. (2013). Dynamic adaptation in child–adult language interaction. *Language Learning, 63*(2), 243-270. doi:10.1111/lang.12002

van Geert, P. (2008). The dynamic systems approach in the study of L1 and L2 acquisition: An introduction. *The Modern Language Journal, 92*(2), 179-199. doi:10.1111/j.1540-4781.2008.00713.x

van Geert, P. (2009). A comprehensive dynamic systems theory of language development. In K. de Bot & R. W. Scharuf (Eds.), *Language development over the lifespan*. New York: Psychology Press.

van Geert, P., & Steenbeek, H. (2006). The dynamics of scaffolding. *New Ideas in Psychology, 23*(3), 115-128.

van Lier, L. (1996). *Interaction in the language curriculum: Awareness, autonomy and authenticity*. London: Longman.

van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-259). Oxford: Oxford University Press.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural*

perspective. Boston: Kluwer Academic Publishers.

Verspoor, M., Lowie, W., & Van Dijk, M. (2008). Variability in second language development from a dynamic systems perspective. *The Modern Language Journal, 92*(2), 214-231. doi:10.1111/j.1540-4781.2008.00715.x

Verspoor, M., Schmid, M. S., & Xu, X. (2012). A dynamic usage based perspective on L2 writing. *Journal of Second Language Writing, 21*(3), 239-263. doi:http://dx.doi.org/10.1016/j.jslw.2012.03.007

Vygotsky, L. S. (1978). *Mind and society*. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1987). Thinking and speech. In R. W. Rieber & A. S. Carton (Eds.), *The collected works of LS Vygotsky, Volume 1 problems of general psychology* (Vol. 1, pp. 39-285). New York: Plenum Press.

Wagner, J., & Gardner, R. (2004). Introduction. In R. Gardner & J. Wagner (Eds.), *Second language conversations* (pp. 1-17). London: Continuum.

Waring, H. Z. (2013). "How was your weekend?": Developing the interactional competence in managing routine inquiries. *Language Awareness, 22*(1), 1-16.

Weltens, B., & Cohen, A. D. (1989). Language attrition research: An introduction. *Studies in Second Language Acquisition, 11*(02), 127-133.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University Press.

Wetherell, M., Taylor, S., & Yates, S. (2001). *Discourse theory and practice: A reader*. London; Thousand Oaks, CA: Sage Publications.

Wilkinson, R. (2007). Managing linguistic incompetence as a delicate issue in aphasic talk-in-interaction: On the use of laughter in prolonged repair sequences. *Journal of Pragmatics, 39*(3), 542-569.

Wilkinson, R., Gower, M., Beeke, S., & Maxim, J. (2007). Adapting to conversation as a language-impaired speaker: Changes in aphasic turn construction over time. *Communication & Medicine, 4*(1), 79-97.

Wong, J. (2000a). Delayed next turn repair initiation in native/non-native speaker English conversation. *Applied Linguistics, 21*(2), 244-267.

Wong, J. (2000b). The token "yeah" in nonnative speaker English conversation. *Research on Language and Social Interaction, 33*(1), 39-67.

Wong, J., & Waring, H. Z. (2010). *Conversation analysis and second language pedagogy: A guide for ESL/EFL teachers*. New York: Routledge.

Wootton, A. J. (1997). *Interaction and the development of mind*. Cambridge: Cambridge University Press.

Yin, R. K. (2014). *Case study research: Design and methods* (Fifth ed.). Los Angeles: Sage Publications.

Young, C. H., Savola, K. L., & Phelps, E. (1991). *Inventory of longitudinal studies in the social sciences*. Newbury Park, CA: Sage Publications.

Young, R. F. (2008). *Language and interaction: An advanced resource book*. London; New York: Routledge.

Young, R. F., & He, A. W. (1998). *Talking and testing: Discourse approaches to the assessment of oral proficiency*. Philadelphia: John Benjamins.

Young, R. F., & Miller, E. R. (2004). Learning as changing participation: Discourse roles in ESL writing conferences. *The Modern Language Journal, 88*, 519-535.

Zimmerman, D. H. (1998). Identity, context and interaction. In C. Antaki & S. Widdicombe (Eds.), *Identities in talk* (pp. 87-106). Thousand Oaks, CA: Sage Publications.