WORKING HYPOTHESIS IN SECOND LANGUAGE DEVELOPMENT IN NATURAL SETTINGS OF WORLD OF WARCRAFT

TWENTY ONE YEAR OLD ADULT’S SECOND LANGUAGE DEVELOPMENT IN THE GAME PLAY OF WORLD OF WARCRAFT

A Dissertation in
Curriculum and Instruction

by

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This research is concerned with the power of natural learning for L2 development. In this study, the World of Warcraft community has been used as an environment for natural learning. There was one subject, who was a 21-year-old male adult and had a high interest in playing World of Warcraft but had minimum motivation for learning English as a second language. For over one and a half years, he participated in World of Warcraft. His verbal interaction was taped and transcribed. His speech was analyzed from the time he began playing the game to the end of the study. The findings showed that there were five stages in his language development. In the first stage, the subject used deleted routines, which were incomplete in both grammar and meaning. In the second stage, he could use routines that were grammatical and meaningful. But this did not mean he had developed grammatical knowledge. Instead he used routines as single units. In the third stage, he began to notice subcomponents of routines, so-called “chunks.” In the fourth stage, the subject realized how to combine chunks with other chunks or chunks and routines, and consequently he constructed new sentences. This stage reflected that he “noticed” chunks among routines, but he did not show enhancement of his grammatical knowledge because his sentences did not require grammatical complexity. Before he moved to the fifth stage, he often committed grammatical errors. This resulted in the occurrence of negative feedback from other players, which brought him to raise his grammatical consciousness. In the final stage, or fifth stage, the subject could construct compound and complex sentences. Also, he could build interrogative sentences with interrogative pronouns and make passive-voice sentences, which means he was able to
create grammatically complex sentences. With these findings, we have interpreted how the subject enhanced both grammatical and language developments. That is, we could argue that his developments were ascribed to a natural learning environment (see, Krashen, 1982), namely the game World of Warcraft. His primary concern over the game itself (see, Skehan, 1998) made him notice (see, Robinson, 2003) his preferable language forms, which are routines and chunks (see, Lewis, 2000). Also, because he had no teacher and no language materials in World of Warcraft, we could say that his developments of language and grammar came from his socialization (see, Mitchell & Myles, 2004) in the World of Warcraft community. Grammar emerged in the fourth and fifth stages. This result suggests when and how L2 teachers can most effectively teach grammar. For this, L2 teachers should keep in mind that in the fourth stage, the subject received many instances of negative feedback from other players and that the negative feedback raised his grammatical consciousness. Despite all of the positive findings, we have to concede that the subject’s language developments were only appropriate for small talk. His sentences were basically simple and short, though he showed some compound and complex sentences in the last stage. Also, his grammatical knowledge was limited, though he knew how to make subordinate clauses, interrogative sentences, passive-voice sentences, etc. Natural learning, as in World of Warcraft, can become too nondirectional (see, H. D. Brown, 2007a). If a learner loses all interest in playing the game, we are afraid of their automatic loss of language learning. However, this research has important implications for L2 classrooms. That is, an L2 student can learn his or her target language if he or she is given a proper environment. Without the teacher’s help, the L2 student can
grow in the direction that enhances his or her ability to speak up to a certain level, but the student needs the teacher’s help to get beyond that level. Another implication is that “routines” are a basic element in language development. We hope that the “routine” concept gives L2 teachers a sense of what to teach and how to teach it in their classrooms. In this respect, we would like to say that this research is of great significance in the English-education market.
# TABLE OF CONTENTS

LIST OF FIGURES........................................................................................................................................ix

LIST OF TABLES..........................................................................................................................................x

ACKNOWLEDGEMENTS................................................................................................................................xiv

CHAPTER 1. INTRODUCTION......................................................................................................................1

1.1. Necessity of Research .......................................................................................................................1
1.2 Objectives ..........................................................................................................................................4
1.3 Research Method ...............................................................................................................................6
1.4 Limitations .........................................................................................................................................7
1.5 Significance of the Study ...................................................................................................................7

CHAPTER 2. LITERATURE REVIEW...........................................................................................................9

2.1 Krashen’s Acquisition-Learning Hypothesis (ALH) ..............................................................12
2.2 Task-Based Language Teaching (TBLT) .....................................................................................19
2.3 Socio-Cultural Theory (SCT) ......................................................................................................28
   2.3.1 Mediation .................................................................................................................................29
   2.3.2 Regulation ...............................................................................................................................32
   2.3.3 The Zone of Proximal Development (ZPD), Private Speech, and Internalization ..........34
   2.3.4 Activity Theory ......................................................................................................................38
2.4 Language Socialization (LS) .........................................................................................................40
   2.4.1 Background .............................................................................................................................40
   2.4.2 Language Socialization ........................................................................................................41
   2.4.3 Second-Language Socialization ............................................................................................43
   2.4.4 Theoretical Framework of Language Socialization ..............................................................44
2.5 The Lexical Approach ......................................................................................................................52
   2.5.1 Background .............................................................................................................................52
   2.5.2 Theoretical Perspective ..........................................................................................................54
2.6 Noticing ...........................................................................................................................................62
   2.6.1 Background .............................................................................................................................62
   2.6.2 What is Noticing? ....................................................................................................................63
   2.6.3 Researchers Favoring the Role of Noticing ..........................................................................67
2.7 Previous Research ...........................................................................................................................77
   2.7.1 Massively Multiplayer Online Games and Second Language Learning in Research ..........77

CHAPTER 3. RESEARCH DESIGN IN ETHNOGRAPHIC RESEARCH..................................................83

3.1 Research Area ..................................................................................................................................83
3.2 Context .............................................................................................................................................84
3.3 Material ............................................................................................................................................85
3.3.1 Introduction of Material ................................................................. 85
3.3.2 Settings ....................................................................................... 86
3.4 Justification ....................................................................................... 100
3.5 Research Questions ........................................................................... 100
3.6 Subject ............................................................................................. 100
3.6.1 Ina ............................................................................................ 100
3.6.2 Participant’s English language level .............................................. 101
3.7 Research Procedure .......................................................................... 102
3.8 Analysis of Data ................................................................................ 103

CHAPTER 4. DATA ANALYSIS AND RESULTS .............................................. 105
4.1 The first stage: a variety of routines .................................................. 105
4.1.1 high-deleted routine period .......................................................... 106
4.1.2 middle-deleted routine period ....................................................... 113
4.1.3 low or zero-deleted routine period ................................................ 120
4.2 The second stage: G-routines and R-routines .................................... 125
4.2.1 Input period: G-routines ............................................................... 125
4.2.2 Occurrence together period: G-deleted and R-deleted routines ...... 132
4.2.3 The changing period: from G-deleted routine to R-deleted routine ... 135
4.3 The third stage: notice of chunks ....................................................... 139
4.3.1 Substitution period: G-chunks ...................................................... 140
4.3.2 Substitution period: R-chunks ...................................................... 144
4.3.3 ‘Hunger for’ period: chunks ........................................................ 147
4.4 The fourth stage: producing sentences (Grammar consciousness raising) ........................................................................ 150
4.4.1 Sentence period: ‘chunk + routine’ .............................................. 151
4.4.2 Discourse period: ‘routine + routine’ .......................................... 155
4.4.3 Grammar consciousness raising period ....................................... 166
4.5 The fifth stage: producing sentences (grammar emerging) ............... 182
4.5.1 Grammatically developed combinations period ......................... 183
4.5.2 Necessity of negative feedback period ....................................... 212
4.5.3 A small talk period ..................................................................... 223
4.5.4 Grammar emerging period ......................................................... 243
4.5.5 Advantages and limitations of natural setting period .................. 246
4.5.6 Necessity of formal learning period .......................................... 267

CHAPTER 5. DISCUSSIONS .......................................................................... 288
5.1 What is language development in World of Warcraft? ..................... 288
5.2 If language development was successful in World of Warcraft, then what aspects lead to successful language acquisition? .............. 300
5.3 If the language learned in World of Warcraft settings were satisfying, then do we need formal learning? ........................................... 302

CHAPTER 6. CONCLUSIONS ........................................................................ 310
6.1 Games as a learning environment .................................................... 310
6.2 Review of the six theories ............................................................... 311
6.2.1 Review of Krashen’s acquisition-learning hypothesis (ALH) .................. 311
6.2.2 Review about task-based language teaching (TBLT) .......................... 313
6.2.3 Review of socio-cultural theory (SCT) ............................................. 316
6.2.4 Review about language socialization (LS) ........................................ 318
6.2.5 Review of the lexical approach (LA) ................................................. 320
6.2.6 Review of Noticing ......................................................................... 322
6.3 Using games in L2 classrooms ............................................................. 324

REFERENCES ......................................................................................... 327
LIST OF FIGURES

Figure 1. An achievement for reaching level 80 ................................................................. 92
Figure 2. Races and capable classes in World of Warcraft ............................................. 96
Figure 3. Race specified abilities .................................................................................... 97
Figure 4. Quest completed screenshot .......................................................................... 130
**LIST OF TABLES**

Table 1. *Conversation 1* ........................................................................................................... 106

Table 2. *Findings from summary of conversation 1* ................................................................. 110

Table 3. *Conversation 2* ........................................................................................................... 111

Table 4. *Findings in conversation 2* ........................................................................................ 113

Table 5. *Conversation 3* ........................................................................................................... 113

Table 6. *Findings of conversation 3* ........................................................................................ 116

Table 7. *Conversation 4* ........................................................................................................... 117

Table 8. *Findings in conversation 4* ........................................................................................ 120

Table 9. *Conversation 5* ........................................................................................................... 121

Table 10. *Findings in conversation 5* ....................................................................................... 124

Table 11. *Conversation 6* ........................................................................................................... 126

Table 12. *Findings in conversation 6* ....................................................................................... 127

Table 13. *Conversation 7* ........................................................................................................... 128

Table 14. *Findings in conversation 7* ....................................................................................... 131

Table 15. *Conversation 8* ........................................................................................................... 132

Table 16. *Findings in conversation 8* ....................................................................................... 134

Table 17. *Conversation 9-1* .................................................................................................... 135

Table 18. *Findings in conversation 9-1* ..................................................................................... 137

Table 17-2. *Conversation 9-2* .................................................................................................. 137

Table 18-2. *Findings in conversation 9-2* ................................................................................. 139

Table 17-3. *Conversation 9-3* .................................................................................................. 140

Table 18-3. *Findings in conversation 9-3* ................................................................................. 143
Table 17-4. Conversion 9-4 ................................................................. 144
Table 18-4. Findings in conversation 9-4 ........................................ 146
Table 17-5. Conversation 9-5 ......................................................... 147
Table 18-5. Findings in conversation 9-5 ........................................ 149
Table 19-1. Conversation 10-1 ...................................................... 151
Table 20-1. Findings in conversation 10-1 ................................. 154
Table 19-2. Conversation 10-2 ...................................................... 156
Table 20-2. Findings of conversation 10-2 ................................. 158
Table 19-3. Conversation 10-3 ...................................................... 159
Table 20-3. Findings in conversation 10-3 ................................. 161
Table 19-4. Conversation 10-4 ...................................................... 162
Table 20-4. Findings in Conversation 10-4 ................................. 165
Table 19-5. Conversation 10-5 ...................................................... 166
Table 20-5. Findings in conversation 10-5 ................................. 169
Table 19-6. Conversation 10-6 ...................................................... 170
Table 20-6. Findings in conversation 10-6 ................................. 172
Table 21-1. Conversation 11-1 ...................................................... 173
Table 22-1. Findings in conversation 11-1 ................................. 175
Table 21-2. Conversation 11-2 ...................................................... 176
Table 22-2. Findings in conversation 11-2 ................................. 178
Table 21-3. Conversation 11-3 ...................................................... 179
Table 22-3. Findings in Conversation 11-3 ................................. 181
Table 23. Conversation 12 ........................................................... 183
Table 24. Findings in conversation 12 ........................................ 195
Table 25. Conversation 13 ........................................................... 198
Table 26. Findings in conversation 13

Table 27-1. Conversation 14-1

Table 28-1. Findings in conversation 14-1

Table 29. Conversation 14-2

Table 28-2. Findings in conversation 14-2

Table 27-3. Conversation 14-3

Table 28-3. Findings in conversation 14-3

Table 29. Conversation 15

Table 30. Findings in conversation 15

Table 31-1. Conversation 16-1

Table 32-1. Findings in conversation 16-1

Table 31-2. Conversation 16-2

Table 32-2. Findings in conversation 16-2

Table 33-1. Conversation 17-1

Table 34-1. Findings in conversation 17-1

Table 33-2. Conversation 17-2

Table 34-2. Findings in conversation 17-2

Table 33-3. Conversation 17-3

Table 34-3. Findings in conversation 17-3

Table 33-4. Conversation 17-4

Table 34-4. Findings in conversation 17-4

Table 35-1. Conversation 18-1

Table 36-1. Findings in conversation 18-1

Table 35-2. Conversation 18-2

Table 36-2. Findings in conversation 18-2
Table 35-3. Conversation 18-3 ........................................................................................................... 258
Table 36-3. Findings in conversation 18-3 ......................................................................................... 260
Table 35-4. Conversation 18-4 ........................................................................................................ 260
Table 36-4. Findings in conversation 18-4 ......................................................................................... 262
Table 37-1. Conversation 19-1 ....................................................................................................... 262
Table 38-1. Findings in conversation 19-1 ......................................................................................... 266
Table 37-2. Conversation 19-2 ....................................................................................................... 267
Table 38-2. Findings in conversation 19-2 ......................................................................................... 271
Table 39-1. Conversation 20-1 ....................................................................................................... 272
Table 40-1. Findings in conversation 20-1 ......................................................................................... 275
Table 39-2. Conversation 20-2 ....................................................................................................... 276
Table 40-2. Findings in conversation 20-2 ......................................................................................... 277
Table 39-3. Conversation 20-3 ....................................................................................................... 277
Table 40-3. Findings in conversation 20-3 ......................................................................................... 280
Table 39-4. Conversation 20-4 ....................................................................................................... 281
Table 40-4. Findings in conversation 20-4 ......................................................................................... 282
Table 41. Conversation 21 ............................................................................................................. 284
Table 42. Findings in conversation 21 ............................................................................................. 287
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CHAPTER 1. INTRODUCTION

1.1. Necessity of Research

William Wordsworth (1770-1850) was a major British Romantic poet, and he wrote a poem titled “The Rainbow” (or “My Heart Leaps Up”) on March 26th, 1802. As he observed a rainbow in the sky, he said that the emotions we feel as we see a rainbow are already something we know and experienced as a child. Thus, he says, “The Child is father of the Man.”

The Rainbow

My heart leaps up when I behold

   A rainbow in the sky:
So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
Or let me die!

The Child is father of the Man;

I could wish my days to be

Bound each to each by natural piety.
There are people who still remember the underlined line of the poem: the students and teachers who study foreign language. Of course many linguistic scholars remember this poem, too.

Children, who are known as language-learning experts, gave birth to Chomsky (1965), a language structuralist, and Krashen (1981, 1982), a language-acquisition theorist. Weir (1962) observed children as experts in language acquisition, but children also invest extensive time and effort to become experts. The scholars mentioned have received much criticism in recent years, but it is also known that all of them were supported by foreign language learners from their period of time. For example, Krashen’s (1981, 1982) acquisition-learning hypothesis, conscious-learning process, and subconscious-acquisition process received many criticisms. However, educators who still believe in foreign-language learning that is similar to children’s context support his claims. One extreme example of Krashen’s dramatic influence is Korea’s English Villages project. The English Villages of Korea have attempted to provide “Krashen’s naturalness” to L2 adults and L2 children aged 5 or 6 and above, like what native English-speaking children would experience before the age of six.

This Garden of Eden cannot yet be judged if it’s a success or not, but it demonstrates educators’ and policymakers’ efforts to build a dream world of English-language learning. In the history of English-language teaching methodology, research similar to today’s methodology can be noticed in the 19th century. One example is Gouin’s Series Method, and another is Berlitz’s Berlitz Method, which was especially popular (Richards & Rodgers, 2001, p. 12). Gouin and Berlitz’s methods both originate from the idea of replicating children’s language-learning environment in order to enable
L2 learning. Regardless of the flaws in their theories, their methods provided plenty of interest for educators and learners because they were replicating the children’s environment.

Current language-learning classrooms are trying to provide language learners with a more naturalistic opportunity to learn language (Richards & Rodgers, 2001). For example, scholars who subscribe to the view of task-based language teaching (e.g. J. Willis, 1996) argue that it is difficult not to replicate children’s language learning. Students see tasks and do not focus on the language; thus the approach is very similar to children’s language-learning procedure. The recent emergence of technology also promotes the natural environment of language learning. H. D. Brown (2007a) posited that:

In the case of English, the penetration of English-based media (Especially television, the Internet and the motion picture industry) provides further read access to English even in somewhat isolated settings. (p. 205)

This claim can be considered as an effort to promote a childlike environment for language learning.

However, not many succeed in replicating children’s language-learning environment, because the focus is on learning language. Although children are known as language-learning experts, they do not live to learn language. Rather, children happen to pick up language in their everyday life. In sociocultural theory, language is a mediation tool. Language is used to understand the relation between self and the world. This makes the children’s language learning experience natural. Moreover, learning language is not the purpose of children’s activities, but rather it is unconsciously learned in order to
understand their surroundings. Language socialization is understood in the same way.

Language is used to socialize, not to learn the language.

In this sense, we as educators need to understand how to provide language learners with a natural language-learning environment. The natural language-learning environment can be referred to as a place where people meet to socialize, not as a place to meet in order to learn language. It will be worthwhile to observe how a language learner will socialize in this environment. Additionally, it is important to examine how the learner processes the language through socialization, which can bring positive influence to future foreign-language learning classrooms.

1.2 Objectives

The initial purpose of this research is to provide a natural environment for language learning. I suggest the massively multiplayer online game *World of Warcraft* to observe how the participant plays the game. The *World of Warcraft* game environment promotes a communicative, collaborative, and socializing community, which can be considered a suitable place to observe interactions. Additionally, the interactions’ purpose is focused not on language learning but on learning how to play *World of Warcraft*; therefore, it is appropriate to observe the interaction to understand the player’s language learning. As a result, in this study I would like to describe how a single language learner overcomes the language barrier through socializing in the game *World of Warcraft*. More specifically, the study observes the learner’s strategic language forms and functions used while playing *World of Warcraft*. There will also be discussion about how the
participant’s interest in the target language has changed throughout the study and how his motivation toward language learning changed after the study was over.

This research observes one male participant’s language development in playing *World of Warcraft*. He was 21 years old when the research was conducted and did not have intentions to learn language. His knowledge of *World of Warcraft* was minimal, but he understands how to play a massively multiplayer game. The researcher plays with the participant throughout the gameplay but does not intentionally try to focus on language learning. My role was that of a fellow player intending to enjoy the game.

The second purpose of this research is to provide a sociable environment for adult L2 learners. For adult L2 learners, other than ESL classroom there is not a suitable environment for them to socialize. If one has a religion, church can be a possible candidate for a sociable environment, but I would like to stay away from any religion-related contexts. *World of Warcraft* can provide adult L2 learners with a suitable sociable environment; thus it is important to observe how *World of Warcraft* can be effective for L2 learners in such an environment.

The third purpose is to observe what the participant did for a year in the game. Normally, when a stranger tries to join a community, he or she attempts to become a member of the society. The result of the participant’s effort to join the community will be shown in the data through the participant’s L2 development. Specifically, when the participant joins the *World of Warcraft* community, it will be possible to predict that he will learn routines of *World of Warcraft*, related terminologies, and the game’s social norms.
The fourth purpose is to observe how much linguistic development has occurred in the year-and-a-half period of time. If the participant only learns game-related terms, the linguistic development may not occur. However, if the participant socializes with other gamers, linguistic development can occur. In sociolinguistics, the notion of pidgin is mentioned, as well as how it occurs and changes through period of time. Pidgin is a tool used by people who do not share a language but have specific purpose in trading. This is very similar to the *World of Warcraft* setting, where people communicate for specific reason. However, as people socialize and begin to interact about something other than trading, pidgin alone is not enough. At this point, language develops and makes it possible for people to communicate with each other; this is known as creole. If this type of sociolinguistic feature is noticed during the observation of the participant, then his language is developing.

The fifth purpose is to observe if the game *World of Warcraft* can become a community of speech. If it’s possible, then it can transfer and be utilized in ESL-classroom settings.

### 1.3 Research Method

An ethnographic approach has been used in this research. In order to observe an L2 adult’s participation in a specific place (in this case *World of Warcraft*), utilizing ethnography is inevitable. I also utilize diary studies in this research. In order to note the interactions of the participant, keeping a journal to track the conversation is needed. I have used video cameras to record the visual conversations, and an in-game system to
track the chat files of the participant. This research also includes interviews of the participant. Through a year-and-a-half of time, I used interviews to identify the different moments of the participant’s language development.

1.4 Limitations

The first limitation in this research is that it only observes one participant. The study will be considered as a representative sampling. However, the research will have limits in generalizing its results. Considering that everyone’s behavior is unique, generalization does not have that much validity. Additionally, the data collected for a year-and-a-half period of time has not been fully used; thus there is not reliability. However, it is impossible to use all the data collected in such a long period of time. Another factor is that subjectivity has been involved when selecting the conversation data. The researcher also has played the game with the participant, and the researcher put in a lot of effort to avoid intervening with the participant’s socialization; it sounds subjective, but maximum effort to avoid influencing the participant’s socialization was made in this experiment.

1.5 Significance of the Study

The first interest in this study is to discover what adult L2 learners learn through socialization. This will indicate to teachers that during a task-based learning situation, students can learn non-target language-related knowledge. It will be noticed as a part of
the natural learning process. Also, the teacher will understand that it is normal to learn something different during the natural learning process and will give the students confidence and interest in socialization in classroom settings.

The second interest is to observe if the adult L2 learner, who has no intention to learn language, gains motivation to learn language. If the participant gains motivation toward language learning, it can be transferred to a formal situation such as classroom settings, and in that context the learner can keep learning the language.

The third interest is to see if the informal setting of *World of Warcraft* and formal settings of classrooms have a common ground. Previously, language learning was focused on finding the difference between formal/informal learning, but in future research language learning can be expected to begin with informal learning and move on to formal learning.

The fourth interest is to observe if the natural environment of *World of Warcraft* can be a complete material for language learning. I would like to see how much language development can be observed for a participant who has no intention to learn language and without formal instruction from an ESL teacher. The result will have implications for ESL teachers to understand when ESL learners can be guided into language-learning settings.
CHAPTER 2. LITERATURE REVIEW

In order to utilize English-language education with video games, it is important to consider several key concepts. The first concept is the difference between learning and acquisition. According to Krashen, acquisition is considered a process through which the learner intakes language unconsciously. Acquisition does not have a formal classroom\(^1\) setting or a teacher\(^2\) to teach. Learning procedure, on the other hand, is conscious and requires a formal setting of teachers and a classroom. Considering the differences between learning and acquisition, learning language from video games seems to be closer with the acquisition process. Video games do not have a formal form of teacher or classroom. Video games do, however, offer a great resource for language learning; it has been shown in past research that people can learn language through games. However, people do not use video games to learn language; rather, people pick up the knowledge as a result of playing the video game. Krashen has distinguished between acquisition and learning. It is a well-known fact that Krashen's idea of language learning includes questionable arguments, but there is still a place to discuss his ideas in the linguistic area. The point is that when the focus is too much on language learning itself, it can be harder to learn the language in that context.

The second important concept is task-based language learning. In task-based language learning, the task is considered as the primary focus, and language learning

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1 In this chapter, classrooms will be referred as language learning classrooms.
2 In this chapter, teachers will be known as language teachers.
becomes the secondary focus for language learners. In this sense, a game is a task because the primary focus is on winning the concept of the game; therefore, it fits well with the task-based language-learning approach.

The third key concept is the socio-cultural theory. According to Vygotsky, learning needs to be a social form, and through social interaction in the social environment, language learning along with other learnings can occur. Considering a virtual game as a community, this place can be seen as an environment dedicated to a social activity. Players socialize and interact with others, which follows the socio-cultural theory’s claims.

Fourth, Massively Multiplayer Online (MMO) games have close connections with language socialization (LS). Ochs (1996) defines language socialization as a socialization process through language, and at the same time language is used as the learner becomes socialized. Therefore L1 children’s and L2 language learners’ sense of the social order and systems of belief are learned at the same time through language-mediated interaction. Kanagy (1999) has demonstrated in his research that in the language-socialization process, Japanese immersion kindergarteners learned interactional routines with the teacher’s assistant. Li (2000) observed that Chinese immigrant women who participated in social interaction at work showed internalization of the target language and cultural norms. The game settings are also a social environment. The game is designed to let players socially interact within the game. Ochs (1996) argued that the interaction between experts (experienced gamers) and novices (inexperienced gamers) includes language socialization. In World of Warcraft, novice players will learn interactional routines, as Kanag noted. It is not certain how the novice’s language will change during the
socialization process, but it is sure that the novice will learn language.

Fifth, the lexical approach has connections with language learning in video game situations. Lewis (1993) established the lexical approach to language learning, emphasizing that learners will initially learn lexical phrases as vocabulary chunks. As the learner receives meaningful chunks, he or she starts to use the chunks more frequently and eventually intakes the chunk language. Learners will also perceive patterns of language, which are considered as grammar. When an ESL learner plays video games, he or she will initially learn routines of language, which are chunks. Learners are not learning from a teacher, nor do they have a textbook to refer to. ESL learners are learning by picking up the language from other players of the game through socialization. In order to communicate with other players, it is natural that ESL learners will begin with single words or chunks that function as single words.

The sixth important theory is noticing, which has close connections with language learning through video games. Schmidt (1995) argued that in all learning, the most important characteristic is awareness. He continues to add that learners will “notice” certain language items among the input received, convert it into intake, and then use it in conversation situations. Novice gamers will learn a particular language item through interacting with other players, and eventually intake the language. The procedure of language development in gaming situations can be very similar to the noticing hypothesis.

Using these six theoretical approaches to language learning, the next section will discuss why they need to be applied to video games.
2.1 Krashen’s Acquisition-Learning Hypothesis (ALH)³

Using Krashen’s theory as a theoretical framework can be questionable and odd. However, a part of his hypothesis is worth mentioning, especially in English-language learning in video game contexts.

According to H. D. Brown (2007a), Krashen’s ALH defined acquisition as a subconscious process, such as a child’s mother-language learning process, and learning as conscious process. Krashen also posits that the reason why mother-language acquisition and target-language acquisition do not show differences in language learning is because he views language acquisition in the same view as Chomsky (1965). As a well-known fact in language acquisition history, Chomsky stated that every human is born with an innate ability to learn language.

Krashen (1981) stated that in order to internalize target language, both acquisition and learning are necessary. But Krashen also stated that acquisition procedure should be performed fluently, and learning needs to monitor the language that has been acquired. Additionally, Krashen (1982) added that acquisition and learning are two concepts that never overlap. In other words, Krashen’s ALH became the ground theory of the conscious and subconscious dichotomy and of the acquisition and learning dichotomy. Such dichotomy or separation has been criticized for a long time. One of the opposing scholars, McLaughlin (1990a), asserted that it is too difficult to distinguish between consciousness and unconsciousness. The term “conscious” has already generally been

³ Krashen’s Acquisition-Learning Hypothesis (ALH) consists of five hypotheses. The five hypotheses are the Acquisition-Learning hypothesis, the Monitor hypothesis, the Natural hypothesis, the Input hypothesis, and the Affective Filter hypothesis. Among the hypotheses, ALH remains as the grounding concept for Krashen’s approach to language acquisition.
used in various settings; it was difficult to utilize the term under second-language acquisition conditions. McLaughlin (1990b) suggested using the terms “focal” and “peripheral” instead of conscious and subconscious. He continues to support the idea that focal attention occurs in the early stages of learning and develops into peripheral attention later. In this sense, McLaughlin’s study fundamentally supports the conscious process of learning. Because no matter if it is focal or peripheral, both are part of a conscious process. Schmidt (1990, 1994) follows with McLaughlin’s and argued that second language learning needs to go through the conscious process. In this matter, noticing becomes important. However, Tomlin and Villa (1993) have an alternative approach to this matter. They stated that acquisition is a mixed process of the conscious and subconscious. Mitchell and Myles (2004) criticized Krashen’s conscious and subconscious process definition as not clear enough to test in practice. According to their claims, when the interlocutor speaks, there is no way to determine if the speech came from the result of a conscious process or subconscious process. Krashen’s unclear definitions have caused much dispute in the field, and Jin (2011) agrees that Krashen’s definition of conscious and subconscious process is unclear because it causes too much confusion.

Krashen’s distinction between acquisition and learning has issues, too. Basically, Krashen (1985) pointed out that children go through a subconscious process when acquiring their mother language, and learning that occurs in L2 classrooms undergoes the conscious process. He continues to state that acquisition and learning do not overlap and are considered as separate concepts. Eventually, Krashen argued that adult learners should approach L2 as children learn their L1.
However, Doughty and Williams (1998) claim that Krashen and Terrell (1983) comprehensible input has a positive effect on younger learners. According to their research (Doughty and William), after continuous meaningful input, certain linguistic features were not acquired. They noted that conscious attention and learning were needed in language forms. Other scholars such as Swain (1998), Doughty (1991), and Lightbown and Spada (1990) criticized Krashen’s distinction between acquisition and learning through empirical research studies.

Despite all the criticism of Krashen’s theory, some factors still provide hope in language learning for teachers and learners. First is Krashen’s (1973) critical period statement. As a given, the critical period statement determines that adult language learners missed their chance to acquire language. However Krashen states that the success and failure of adult language learners should not be determined too easily. He proposes Genie\(^4\) as a supportive example. Genie was limited in her exposure to language as she grew. Her father abused her when she cried and kept her in isolation, and TV or radio was not available, so her linguistic input was nowhere to be found. When Genie was rescued from her abusive situation, she was hospitalized at the children’s hospital of Los Angeles. Curtiss, Fromkin, Krashen, Rigler, and Rigler (1974) first met Genie at the age of 13 years and 7 months. She left the hospital in 1973 and continued to live with a foster family. At this moment her linguistic ability was growing (See Curtiss et al., 1974, p. 124). According to Curtiss et al. (1974), when Genie was first exposed to the public

\(^4\) Genie was born in April 1957. After 20 months of age, she was isolated in a small room and received minimal care from the mother. The mother was losing sight and could not observe Genie. Genie’s father continuously physically abused her when she cried. Most of the time, Genie stayed in an infant’s pottery chair and could only eat infant food.
when she was 13 years and 7 months old, she was not able to communicate with other people. However, in Genie’s case, what took place at this time was her first language acquisition, which was English. Even though her critical period had passed, it was possible to acquire the first language, according to Krashen.

Tohidian and Tohidian (2009) tried to find Krashen (1973) hypothesis of lateralization taking place at a precise age. The effort led to interest in the neurological basis of the critical period hypothesis (CPH). This means that the interest became focused on the critical period for language acquisition that could reside in a human’s brain. The interest in the human mind led Krashen (1973) to open possibilities in adults’ second language acquisition. It is still true, however, that Krashen’s argument about adults’ and children’s similarities and differences are not clear.

Previously, CPH was only applied to first language acquisition, but recently it has been applied to second language acquisition; therefore, observing the differences between adults and children wouldn’t be too difficult (See Hyltenstam & Abrahamsson, 2003; Ioup, 2005; Moyer, 2004; Singleton & Ryan, 2004). For example, in a cognitive perspective, DeKeyser (2000) describes the difference between adult and child learners. According to his research, children are better at implicit learning and adults are better at explicit learning. H. D. Brown (2007a) also distinguishes the differences between adult and child learning in general. The debate still continues about who is the better language learner between adults and children. Tohidian and Tohidian (2009) stated that there is already much research about the precise ideal age to learn L2, and there are too many different conclusions about it. Krashen has opened up the possibility for adult language learners to learn as children would, and his research has been praised by ESL teachers.
Second, Krashen (1985) has argued about natural communication in its early period. According to Krashen, acquisition can be done only through natural interaction in the target language. However, during natural communication, the speaker cannot consciously realize the language form. For example, students in ESL classrooms will show tendency to focus on language forms when speaking. This is because, ESL teachers correct the language forms, and therefore students will easily shift the focus toward the language forms. However, the ESL student does not concentrate on the language form outside the classroom. This is because the student will use the language as a supplement to acquire a certain purpose, such as asking a clerk for a shop’s location in a mall or ordering fast food from a drive-through. The speakers in this situation do not focus on the ESL students’ language forms; rather, they focus on the content. In my research, natural communication is used as a base in a gaming environment, which also fits with Krashen’s argument.

Of course Krashen’s (1985) distinction between acquisition and learning still has its controversies. Gregg (1984) and McLaughlin (1987) opposed the idea that learning couldn’t switch over to acquisition. But to experience-based ESL teachers in the field, Krashen’s approach was too much of an appeal. In Mitchell and Myles’s (2004) book, the frustrations about the differences between theory and practice have been noted. According to Mitchell and Myles (2004), ESL instructors helped the students to learn language forms but still had issues with students using those forms in conversation. The ESL instructors were frustrated with the lack of methods in ESL teaching. For example, learning grammar has been a challenge to ESL students (Mitchell & Myles, 2004). Haynes (n.d.) noted how grammar instructions should be done:
Research has shown that “out of context” grammar drills do not work with students of any age. Teachers of English language learners should really be developing the oral communication, reading, vocabulary, and writing skills of their young students. The grammar will take care of itself. Read predictable books. Teach thematic units. Any mention of a grammar rule should be within the context of these texts. (p. 45)

According to Haynes, grammar is learned gradually “on-the-way,” as other language skills are developed. Traditionally, grammar was taught consciously in a formal classroom setting; however, according to Haynes’s description, she follows Krashen’s notion that grammar can be learned naturally with other language development. Haynes’s argument follows with Krashen’s approach to natural learning. Hoge (n.d) also supported Krashen. In Hoge’s words, he compares between conscious methods and subconscious methods and suggests that conscious methods are already well known. Instead he illustrates subconscious methods, as below:

Subconscious methods are more effective. These methods provide understandable English input to your brain…and then your subconscious brain does all of the rest of the work. Consciously, all you do is enjoy English stories, articles, conversations, movies and novels. You never think about grammar rules. You never attempt to memorize words.

Hoge continues and says that only enjoyment needs to be conscious. One can enjoy reading, participating in conversation, or movies; there is no reason to feel frustrated over grammar rules. So far, Krashen’s approach to language learning has been observed. Although Krashen’s theory was under attack and noticed as a controversial concept in language-learning theories, it is important to acknowledge that the subconscious process has been welcomed by learners and ESL teachers. This is because subconscious implies two concepts.

The first concept is “similarities with children’s language learning.” H. D. Brown (2007a) stated that potential interest in child language-acquisition research was done to
bring justification of the field’s ESL teachers to teach L2. In Richards and Rodgers’s (2001) book, they wrote in the history of foreign language methods that Marcel (1793-1896) from France modeled children’s mother language development into L2 teaching. Additionally, the British linguist Prendergast (1806-1886) was noted as a pioneer in observing children’s mother language development. Gouin (1831-1896), also from France, developed language-learning methodology with children’s mother language development.

The second concept is “making conversation like real-life.” In the history of foreign language methodology, natural principles for foreign language classes have been applied to teaching language since the 19th century. In the 1860’s, a language school was built in Boston incorporating the natural principles for foreign language classes (Richards & Rodgers, 2001). The point is that L2 teaching should mirror mother language learning.

South Korea’s English-language system demonstrates the natural principles very well. In Korea, there are English villages that became very popular and that Japanese and Chinese like to visit. The concept of the English village is to raise an American-culture-based village in Korea and mirror part of America. Currently there are 22 English villages in South Korea (Ha & Kwon, 2013). Another reason that South Korea’s English-language system demonstrates natural principles is the number of students going abroad to study English language. In Korea, one out of twenty students goes abroad to study English (Lee, 2009). This phenomenon originated from the concept of natural principles. These reasons give validity to studying Krashen’s approach in language learning.
2.2 Task-Based Language Teaching (TBLT)

If Krashen’s (1985) natural communication focused on effective foreign-language study, it is possible to figure out what will be used for natural communication. It is not certain if the natural communications will still exist when it transfers into the classroom. Korea’s English village attempt was intended to recapture the most natural settings. However, the results were not too promising (See Woo, Yeo, Son, Ko, & Choi, 2012). TBLT holds activities that can trigger natural communication in classrooms. Nunan’s (1991, cited in Richards & Rodgers, 2001) description introduces TBLT’s two types of tasks:

1. Real-world tasks, which are designed to practice or rehearse those tasks that are found to be important in a needs analysis and turn out to be important and useful in the real world.

2. Pedagogical tasks, which have a psycholinguistic basis⁵ in SLA theory and research but do not necessarily reflect real-world tasks. (p. 231)

Real-world tasks can be referred to as something that we can experience in everyday life. For example, shopping can be a real-world task, because it is easy to experience it. But doing lesson-plan work in classrooms involves pedagogical tasks, because it is not easy to relate classroom learning to real-world activities. The pedagogical task only has interaction through language. Experiencing pedagogical tasks in classrooms is not too difficult. Classrooms are mostly structured to promote pedagogical tasks. However, Korea’s English villages can be considered as presenting a real-world task.

⁵ Michael Long (1983b, 1989) heavily influenced the research. Generally speaking, pedagogical tasks happen during communications through activities. Eventually, negotiation of meaning occurs. As a result, the input becomes modified and easily understood by the language learner, and, according to Long, acquisition happens. This learning procedure is called psycholinguistic basis.
An interesting fact is that both tasks have failed in South Korea’s language education. First of all, Korean students do not benefit from the pedagogical tasks. Pedagogical tasks do not reflect the real-life world, and as a result, they are not exciting to learn. Especially, low-level English language students cannot enjoy the pedagogical tasks. Theoretically, there are pros and cons among scholars about the pedagogical tasks. In the pro view, pedagogical tasks promote lots of language production, and through the procedure—student and teacher, or student and student—emerges negotiation of meaning. Through the process, input becomes comprehensible input, and eventually it becomes successful acquisition (Gass, 2003; Jordens, 1996; Loschky, 1994; Pica, 1987).

In the con view, Aston (1986) argued that negotiation of meaning does not give students feedback, rather only irritates them in language learning. Foster (1998) stated that negotiation of meaning does not occur as expected in language classrooms. If negotiation of meaning does occur, it mostly happens in vocabularies (Primary lexical), not in the sentence structures. Lyster (1998) questioned recast\(^6\) effect in classrooms. Aston, Foster, and Lyster continued to go against Long, Inagaki, and Ortega’s (1998) negative feedback\(^7\) influences on language development. Lyster argues that negative feedback situations do not occur enough in classrooms, and even if they do occur and students receive recast from the teacher, they hardly notice it. However, scholars such as Mackey, Gass, and McDonough (2000), Nicholas, Lightbown, and Spada (2001), and

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\(^6\) Sokolov and Snow (1994) describe recast, as below:
CHILD: Fix Lily.
MOTHER: Oh... Lily will fix it.


Recast refers to a mother fixing her children’s utterances, as in the dialogue. Sokolov and Snow agree that this behavior helps children’s language development.

\(^7\) Recast on learner’s utterances is fixing their wrong sentences, therefore it is a negative feedback.
Shehadeh (2001) researched how recasting can have a positive effect on learners’ interlanguage development. Pedagogical tasks can give learners pain as they acquire language (See, H. D. Brown, 2007a; Matsumoto, 2000). For example, an Americanized style of discussion-based culture may not fit in with instruction-based Korean/Japanese education culture. Asking Korean/Japanese students to actively participate in a discussion-based class can bring lots of pressure and frustration to learners.

What about real-world tasks? Scholars are, in fact, trying to avoid the definition of real-world tasks. Skehan (2003) found that the relationship of the task to the real world is difficult to grasp. According to Skehan, Long (1985) directly connects between a task and the real world, but Skehan (1998) prefers a task that appears to resemble the real world. In this point of view, Skehan is not employing the real world in classrooms. Skehan stated that how much the task reflects the real world is important—in other words, tasks used by native (target) language are not important; rather the learner’s response toward specific tasks needs to gain attention. Korea’s English village concept is close to Skehan’s idea. Unfortunately, the result was not promising. The origin of the English village was to save language learners the expense of going abroad, and instead provide them with a low-budget experience of the English speaking opportunity in Korea. Initial response to the English village was over the bar of expectations. Pa-Ju’s English village was exposed to other countries’ media. But several years later, Korea’s English villages were underutilized and were not profitable (See, Woo et al., 2012). Considering the failure of English villages, applying tasks to real-world features seems to be very difficult.

It is very difficult to expect natural communication for EFL countries like Korea. As previously noted, the number of students going abroad to English speaking countries
(U.S, U.K, Canada, Australia, etc.) for English education has increased over the years and implies that natural communications are not doing well in Korea’s English language classrooms. ESL classrooms have difficulty applying natural communications because trying to apply real-life communication situations into classroom settings is very difficult.

The next section will describe TBLT’s tasks. Understanding how TBLT scholars define tasks can give us an opportunity to understand the concept of the real world. Richards and Rodgers (2001) describe TBLT as the following:

Task-Based Language Teaching (TBLT) refers to an approach based on the use of tasks as the core unit of planning and instruction in language learning. (p. 233)

Richards and Rodgers considered TBLT as an approach. They claim that approach refers to a theory of language and a theory of language learning, and in this study, I follow Richards and Rodgers’s concept of approach. The fact that TBLT is an approach means that teachers can employ the pedagogical application to suit the students. The task in this situation is considered as a pedagogical unit. As a book can be made out of several chapters, a single task could be made out of several units. Additionally, although TBLT and communicative-language teaching are considered to share the same principles, TBLT has gained more attention (Bygate, Skehan, & Swain, 2001; N. Ellis, 2005; Nunan, 2004; Skehan, 2003; J. Willis, 1996).

Now let’s look at the definition of “tasks.” Many definitions of tasks exist, but Nunan (2004) synthesizes the definition very well. The following is Long’s (1985, p. 89, cited in Nunan, 2004) definition of task:

A piece of work undertaken for oneself or for others, freely or for some reward. Thus examples of tasks include painting a fence, dressing a child, filling out a form, buying a pair of shoes, making an airline reservation, borrowing a library book, taking a driving test, typing a letter, weighing a patient, sorting letters, making a hotel reservation, writing a check, finding a street destination and
helping someone across a road. In other words, by ‘task’ is meant the hundred and one things people do in everyday life, at work, at play and in between. (p. 2)

Long’s definition of task reflects many aspects of the real world. As he noted, tasks are what average people do in their everyday life. Also, all of his suggested tasks are non-language goals. “Painting a fence, dressing a child, filling out a form, etc.” have relations with our everyday life, but they have minimal connections with classrooms. Additionally, some tasks require no language use. For example, the task “painting a fence” does not require much talking. Long’s definition of task can be worded as: tasks are things that people do in everyday life, with or without language, in order to achieve a non-language outcome.

Next is Richards, Platt and Weber’s (1986, p. 289) definition of pedagogical tasks:

...an activity or action which is carried out as the result of processing or understanding language (i.e. as a response). For example, drawing a map while listening to a tape, listening to an instruction and performing a command may be referred to as tasks. Tasks may or may not involve the production of language. A task usually requires the teacher to specify what will be regarded as successful completion of the task. The use of a variety of different kinds of tasks in language teaching is said to make language teaching more communicative… since it provides a purpose for a classroom activity which goes beyond the practice of language for its own sake. (cited in Nunan, 2004, p. 2)

Nunan (2004) distinguished real-world tasks and pedagogical tasks by how and where the task was used. Tasks completed in classrooms were referred to pedagogical tasks and those completed outside of classroom activities as real-world tasks. But Richards et al. (1986) emphasized tasks as understanding language. In this perspective, pedagogical tasks were focused on understanding language, which apparently moved away from naturalness.

Let’s see how D. Willis (1990, p. 127) defines tasks: “By a task I mean an activity
which involves the use of language but in which the focus is on the outcome of the activity rather than on the language used to achieve that outcome” (cited in Seedhouse, 1999, p. 149). Specifically speaking, “task” means the interest should rely on the outcome of the activity as emphasizing on the use of language. Moreover, a task should consist of communication activity and the interest should rely on the non-language goal, rather than relying on grammar or vocabulary as before. However, the condition of real-world tasks does not always relate to the use of language. For example, in video-game settings winning can be the task, and in shopping situations buying an item cheaper can be considered as the task. Therefore, asking to apply language to real-world task is not appropriate. The task in this situation is pedagogical task.

Skehan (1998, p. 95) defines “task” as the following:

- Meaning is primary
- There is some communication problem to solve
- There is some sort of relationship to comparable real-world activities
- Task completion has some priority
- The assessment of the task is in terms of outcome (Cited in Nunan, 2004, p. 3)

First of all, “meaning is primary” means that language is only a device to make meaning. This is one of the four descriptions of a theory of language in Richards and Rodgers’s TBLT\(^8\) (2001, pp. 226-228). Second, TBLT’s theory of language also describes the communication problem that needs to be solved. Skehan’s description of his

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\(^8\) ...several assumptions about the nature of language can be said to underlie current approaches to TBLT (Richard and Rodgers, 2001, p. 226-228) These are:
- Language is primarily a means of making meaning.
- Multiple models of language inform TBL.
- Lexical units are central in language use and language learning.
- “Conversation” is the central focus of language and the keystone of language acquisition.
third, fourth, and fifth elements also matches with TBLT’s theory of language learning. In this perspective, Skehan’s definition of task has the most suitable validity for tasks. Although the second element of task’s description requires communication, it overall suits real-world tasks.

Bygate et al. (2001) describe tasks as follows: “A task is an activity which requires learners to use language, with emphasis on meaning, to attain an objective” (p. 11). The definition of task by Bygate et al. (2001) does not show any differences from previous tasks: use language; focus on meaning; then there will be outcome. However, R. Ellis (2003, p. 16) described the following as a typical definition of a pedagogical task:

A task is a work plan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate propositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their own linguistic resources, although the design of the task may predispose them to choose particular forms. A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills and also various cognitive processes. (Cited in Nunan, 2004, p. 3-4)

Ellis defines “task” as a pedagogical task from the beginning. In his description, he notes “language pragmatically, outcome, primary attention to meaning,” but he also explains task as “~ that bears a resemblance,” which does not directly reflect the real world. Nunan (2004) stated that if a task is used in classroom, it is a pedagogical task, and cuts a firm line between real-world tasks and pedagogical tasks.

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9 Theory of learning
These are:
- Tasks provide both the input and output processing necessary for language acquisition.
- Tasks’ activity and achievement are motivational.
- Learning difficulty can be negotiated and fine-tuned for particular pedagogical purposes. (Richard & Rodgers, 2011, pp. 228-229)
Interest in tasks has grown since the 1970s and 1980s. The reason for interest in tasks originates from the new movement of foreign language methods from the 1970s. According to Brumfit and Johnson (1979), in 1970s foreign language classrooms, communicative activities were developed through a communicative approach. As a result, communicative activities adapted to learners’ needs, and meaning was focused on as the primary concern along with exchanging information (Geddes, Sturtridge, & 1979; Harmer, 1983, 2001; Wesche & Skehan, 2002). Learners always dreamed about natural communication. H. D. Brown (2007b) stated that in the 1970s, second-language learning and teaching became an independent area of study due to the activeness of the field. The 1970s language education couldn’t be utilized by the pre-1970s approach, where the structural view was dependent on the language structure (Widdowson, 1978). The characteristics of 1970s language education can be seen by Hatch’s (1978) statement:

In second language learning the basic assumption has been… that one first learns how to manipulate structures that one gradually builds up a repertoire of structures, that one gradually builds up a repertoire of structures and then, somehow, learns how to put the structures to use in discourse. We would like to consider the possibility that just the reverse happens. One learns how to do conversations, one learns how to interact verbally, and out of this interaction, syntactic structures are developed. (p. 404)

Hatch’s argument was a revelation. Previously in language education, language learning came first and then conversation followed along, but he converted the process to conversation first, then language learning, which solved issues in 1970s language education. His argument, and Krashen’s (1985) notion of acquisition is a result of natural

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10 The first, and the most traditional of the three, is the structural view, the view that language is a system of structurally related elements for the coding of meaning. The target of language learning is seen to be the mastery of elements of this system, which are generally defined in terms of phonological units (e.g., phonemes), grammatical units (e.g., clauses, phrases, sentences), grammatical operations (e.g., adding, shifting, joining, or transforming elements), and lexical items (e.g., function words and structure words). (Richards & Rodgers, 2001, p. 20-21)
communication, are very closely related. In other words, natural communication will eventually lead to subconscious L2 acquisition. In this perspective, that researchers and teachers had huge interest in communicative activities is obvious. According to Skehan (2003), it was not until the 1980s that the term “task” replaced communicative activities. Mitchell and Johnson (1986) say that communicative activity and task are used as having the same meaning, but communicative activity was considered a relatively vague term\(^{11}\) and task was preferred. Nunan (1991) noted that in the 1980s, the concept of task rose as a fundamental concept in L2 teaching methodology, materials, and course design. Thus, pedagogical developments that were centered on language form education moved to conversation based education. This pedagogical development led to early adapting task-approaches. As a result of this development, Prabhu’s procedural syllabus (1987) emerged. According to Zare (2012), since the research of the procedural syllabus was conducted in Bangalore, it was later named as the Bangalore communicational teaching project. About 300 children from the ages of 8 to 13 studied Prabhu’s procedural syllabus. The method itself was short-lived, but the theoretical framework that learners will learn language forms better when the focus on the meaning was considered an up to date syllabus.

In a nutshell, all but Long (1985) looked at “task” as meaning pedagogical task. In my research, tasks are given through the game of *World of Warcraft* and are considered real-world tasks. Wang (2008) stated that in real-world tasks, communication problems do not need to be pointed out. Because when people gather and communicate,

\(^{11}\) Littlewood (1981) criticized language use in CLT because it is a subsidiary of language form. But he continued and said that language use is the driving force in TBLT, and it eventually increased the effectiveness of education. Therefore task was preferred over communicative activity.
communication is not a condition, it is a natural happening. However, other scholars mentioned in this chapter attempt to use communication problems as a condition for defining the term “task.” This is because their world is not a real world, it is world that imitates the real world; thus communication problems need to be considered as a condition. However, my research does not need to consider communication problems as conditions because my research reflects the fact that it considers the game environment as the real world.

2.3 Socio-Cultural Theory (SCT)

In my research, I intend to use a MMORPG, which itself can function as another society (Yee, 2006). SCT focuses on providing a “society” in learning; thus it has enough validity to employ it as a theoretical framework. The following notes Vygotsky’s (1978) point of view on learning:

Every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (p. 57)

Vygotsky looks at human learning as a social process and considers that social interaction is the crucial part of human cognition development. Mitchell and Myles (2004) also share the importance of the social aspect in SCT:

Indeed, for some researchers, interaction itself constitutes the learning process, which is quintessentially social rather than individual in nature…but it was given extra impetus in the 1990s by an increasing interest in applying learning theory associated with the name of the Soviet developmental psychologist, Lev S. Vygotsky, to the domain of second language learning (SLL). (p. 193)
In this perspective, my research’s theoretical ground stands in SCT. Additionally, previously conducted research with SCT in second-language learning (Appel & Lantolf, 1994; Lantolf & Appel, 1994) has close connections with this research; thus going over the SCT is important. SLT not only had influence on foreign-language learning, it also had influence in teaching, education, and schooling (Tharp & Gallimore, 1988).


In this chapter, SCT concepts of mediation, regulation, internalization, the zone of proximal development, private speech, and activity theory will be viewed.

2.3.1 Mediation

A definition of mediation is described as below:

The central and distinguishing concept of sociocultural theory is that higher forms of human mental activity are mediated. Vygotsky (1987) argued that just as humans do not act directly on the physical world but rely, instead, on tools and labor activity, we also use symbolic tools, or signs, to mediate and regulate our relationships with others and with ourselves. Physical and symbolic tools are artifacts created by human culture(s) over time and are made available to succeeding generations, which often modify these artifacts before passing them on to future generations. Included among symbolic tools are numbers and arithmetic systems, music, art, and above all, language. As with physical tools, humans use symbolic artifacts to establish an indirect, or mediated, relationship between ourselves and the world. The task for psychology, in Vygotsky’s view, is to understand how human social and mental activity is organized through culturally constructed artifacts and social relationships. (Lantolf, 2000a, p. 80, cited in Mitchell & Myles, 2004, p. 194)

Lantolf attempts to explain that there is no way to access the phenomenon of the world. If the task requires a body, it will need a physical tool; if it needs to use one’s mind, then it requires a symbolic tool. The indirect link between the self and the world is
mediation, and to pursue one’s life, mediational means need to be acquired.

The relationships between mediation and L1 and L2 language development are considered differently. In L1, Mitchell and Myles (2004) stated that early acquisition for child L1 learners happens when they participate in collaborative activity and go through meaning-making. Newmen and Holzman (1993 cited in Dunn & Lantolf, 1998, p. 420) stated that meaning-making requires a tool, and the tool is language. When L1 children collaborate with other people through an activity, a mediation tool (Symbolic tool) is used, which leads to L1 language learning.

However, L2 learning is different from L1 learning. L1 children are not aware they are learning language, while L2 adults are aware of L2 learning. Lantolf (2011) explains this situation below:

Children’s early appropriation of language is implicit (i.e., beyond awareness) since the main function of interaction is not usually language learning but learning something else, including how to participate appropriately in social activities. (p. 25)

According to Lantolf, children learning L1 are not aware of their acquisition procedure. Additionally, children are not trying to learn language through socializing with others; rather, they use the language in order to socialize. This means children are learning communicative function. However, children are not aware of learning communicative function; thus using the term “learning” might not be suitable. Also, the description of children trying to learn something in order to participate seems wrong. Because learning needs to be intentional, and it needs focal attention, children seem to play, rather than learn. Wertsch (2007) noted that children learn L1 through Lantolf's description of social activities. Wertsch also noted that children used language as a
symbolic tool to ease social activities.

Despite this body of research on children’s L1 learning through social activities, research on inter-connections of social activities, mediation, symbolic tools, and target language in L2 learning seems to be lacking. For L2 learning adults, a classroom can be considered one of their social activities to learn a target language. The social activities should be goal-directed activities, but in classrooms, language learning will most likely be the goal of activities. The question is whether it’s possible to mediate mental functioning in this situation. Ushakova (1994) study indicated that the ability to apply mediation to L2 did not increase noticeably. Centeno-Cortes and Jimenez-Jimenez (2004) presented that solving a complex task cognitively did not transfer into developing mediation through L2. The advanced L2 students in the research also did not show any developments in mediation. The result of Coughan and Duff’s (1994, cited in Lantolf, 2011, P. 28) study presents an interesting value. They observed L2 mediation in an activity-theory perspective and said that depending on the purpose of L2 learners, the result was different. In my research, I try to see if an adult’s English language develops through video games. In the study, the participant does not show a desire to learn language; rather he is interested only in playing the video game. In order to observe the participant’s language development in this situation, my interest in Coughan and Duff’s activity theory approach was important. Lantolf and Ahmed (1989) looked at L2 users using language in 3 different situations. First was picture story, next was interview, and at last it was free conversation. In this research, the interlocutor’s communication goal changed the result. For example, in the study, when the goal was set by the participant, language was used appropriately and lengthy with fluency. However the grammar
accuracy was low.

All in all, L1 children’s language development was influenced by adults’ joint-goal-directed activity or appropriated the culture’s symbolic tool. In contrast, L2 adult learners show different patterns of language development depending on the purpose and motive of an activity.

2.3.2 Regulation

The concept of regulation is described below by Lantolf (2000b):

In second language research, the early study by Frawley and Lantolf (1985) compared the performance of intermediate and advanced ESL speakers and showed how in the face of a difficult narrative task, the performance of the intermediate breaks down and they subsequently lose control, or self-regulation, over the mediational means provided by their second language and become controlled, or regulated, by the task set before them. More advanced speakers are able to control the mediational means afforded by the second language in guiding themselves through the task; in fact, to be an advanced speaker/user of a language means to be able to control one’s psychological and social activity through the language. This of course also applies to a first language. As children develop they gain increasing control over the mediational means made available by their culture, including language, for interpersonal (social interaction) and intrapersonal (thinking) purposes. In both circumstances, individuals move through stages in which they are controlled first by the objects in their environment, then by others in this environment, and finally they gain control over their own social and cognitive activities. These stages are usually referred to in sociocultural theory as object-, other-, and self-regulation. (p. 6)

Lantolf explains the procedure of first-language acquisition and second-language acquisition through regulation. In the first-language acquisition process, children develop how to control mediational means\(^{12}\) in the society in which they live. Language is primary in mediational means. In the procedure, an object is regulated, and the procedure

\(^{12}\) According to Lantolf (2000b), mediational means consist of physical tools and symbolic tools. Physical tools are shovels, hammers, bulldozers, dynamite, etc.; these help people as tools to live an effective life (Lantolf, 2011). Symbolic tools consist of language, signs, and symbols (Karpov & Hayward, 1998).
is called object-regulation. Lantolf and Thorne (2007) explain object-regulation below:

...children are often controlled by or use objects in their environment in order to think. This stage is known as object-regulation. For example, given the task by a parent of fetching a particular object such as a toy, a very young child is easily distracted by other objects (a more colorful, larger, or more proximate toy) and may thus fail to comply with the parent’s request. This is a case of the child being regulated by objects. (p. 204)

After this period, children receive help from surrounding people (parents, caregivers, and elder peers) and learn to control mediational means. This stage is named other-regulation. Finally, surrounding activities (social and cognitive activities) are learned to be completely controlled; this is known as self-regulation. Three steps of regulation lead to first-language acquisition. The language acquired through this process is utilized to mediate the connection between self and world or self and other.

Frawley and Lantolf (1985) introduced a study in order to describe the second-language acquisition process through regulation. The study’s data indicated that intermediate learners’ lack of self-regulation often leads to losing control when one meets a difficult task. In contrast, advanced learners have solid self-regulation, and when confronted with a difficult task they can control it. However, compared to the first-language acquisition process, an object-regulation explanation is not enough, and moving to self-regulation seems to be too obvious.

McCafferty (1992) explains about regulation in second-language learning. McCafferty also used a pair of narratives similar to Frawley and Lantolf. The following is the narrative of McCafferty (1994, p. 426):

The task in this study required subjects to narrate a series of six pictures concerning a hat seller who falls asleep under a tree only to wake up and find that a group of monkeys has taken his hats and is up in the tree above him. He eventually discerns that the monkeys imitate his actions and is able to retrieve the hats by throwing his own to the ground. (cited in Mitchell & Myles, 2004, p. 203)
McCafferty (1992) study focuses on what happens during private speech\textsuperscript{13}. In his research, the second-language subject’s narrative demonstrated private speech; surprisingly, object-regulation, other-regulation, and self-regulation were also observed. Private speech can be defined as a speech generated from a language internalization (or acquisition) procedure\textsuperscript{14}. The emergence of three types of regulation indicates that private speech has close relations with language acquisition. However, one could question whether private speech and other-regulation do not mesh together, because private speech is speaking alone and other-regulation involves another interlocutor’s intervention. Lantolf (2011) stated that normal conversation is an interaction between “I” and “you,” but private speech is an interaction between “I” and “Me.”

In a nutshell, regulation directly intervenes with internationalization of mediational means (especially language), regardless of first-language learning, second-language learning, or interpersonal interaction. Regulation attempts to show the procedure of language acquisition. In my research, it is possible to explain how the participant learns language through regulation.

2.3.3 The Zone of Proximal Development (ZPD), Private Speech, and Internalization

This chapter will discuss ZPD, private speech, and internalization. The following is the description of ZPD:

\textsuperscript{13} Flavell (1966) was the first to use the term “private speech,” and later on it replaces Piaget’s egocentric speech.
\textsuperscript{14} Vocate (1994) uses “self-talk” instead of “private speech,” and notes the closeness between “self-talk” and child language acquisition.
The difference between the child’s development level as determined by independent problem solving and the higher level of potential developmental level as determined through problems solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978, p. 85)

ZPD means that when a learner cannot fully understand the interest area, with some help, learners can grow knowledge to regulate the zone. Technically speaking, a learner currently in an object-regulation or other-regulation phase, but with constant scaffolding, ultimately moves into a zone where the learner can self-regulate his or her own mediational means, which is called ZPD. In my research, the participant does not know how to play World of Warcraft in the beginning; however, when an experienced gamer (expert) provides the participant with scaffolding, the participant moves into the object-regulation stage. After the participant constantly receives scaffolding, he advances into the other-regulation stage. In this stage, the participant gradually understands the mediational means and especially begins to utilize it. In the final stage, the participant does not rely on the understanding of the game through scaffolding, but also utilizes the mediational means by himself and masters the game in the stage of self-regulation. The process of development from object-regulation to other-regulation and into self-regulation is possible because the participant is in the ZPD.

ZPD’s concept and Krashen’s input hypothesis (i+1) do share similarities, but many scholars argue against the notion of similarity (Dunn & Lantolf, 1988; Kinginger, 2001). According to these scholars, Krashen’s concept is individual and ZPD is social. Although scaffolding can be a relatively controversial term, literature has shown traces of scaffolding use in ZPD. McLeod (2010) explains ZPD and scaffolding relations below:

The ZPD has become synonymous in the literature with the term scaffolding. However, it is important to note that Vygotsky never used this term in his writing, and it was introduced by Wood, Bruner, and Ross (1976). Once the student, with
the benefit of scaffolding, masters the task, the scaffolding can then be removed and the student will then be able to complete the task again on his own. Wood et al. (1976, p. 90) offer the following definition of scaffolding: 'Those elements of the task that are initially beyond the learner’s capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence'.

Next is private speech. Previously I have described private speech’s functions and role; thus simple description of private speech will be mentioned. Mitchell and Myles (2004) describe private speech below:

However, private speech is interpreted very differently in socio-cultural theory. Here, it is seen as evidence of children’s growing ability to regulate their own behavior – when, for example, a child talks to himself while painting a picture, or solving a puzzle. For Vygotsky, private speech eventually becomes inner speech, a use of language to regulate internal thought, without any external articulation. Thus, private speech reflects an advance on the earliest uses of language, which are social and interpersonal. (p. 198)

Piaget and Vygotsky have different views on private speech. Piaget saw private speech as an ego-centrism where children do not have the ability to distinguish between self and world. In contrast, Vygotsky argued that children develop the ability to control the self through private speech. Appel and Lantolf (1994) describe private speech as a verbal attempt of self-regulation at a certain task. Piaget saw private speech as a subtle movement, while Vygotsky, Appel, and Lantolf saw it as a dynamic movement.

Previously, Weir (1962) found purpose in private speech. She placed a recorder in her two year old son Anthony’s room and recorded his private speech that normally emerged at night. This research presented the fact that children acquiring L1 actually practice and work hard to acquire language. Weir stated that children show a dynamic attitude toward language. In second-language research, the role of private speech is also dynamic. For example, Smith (1996) describes private speech’s role and function. Smith also saw private speech as a dynamic process. He observed a grammar class of high-intermediate
ESL students. One female student was spotted using private speech in order to understand the “gerunds” and “infinitives.” This indicates that the female student tried to find the answer through private speech.

However, Korean ESL teachers note that they never heard of or saw L2 learners’ private speech. Further research should be conducted about private speech through L2. Weir sent Anthony’s private speech recordings to a professor in Harvard University, Miller. Miller questioned the existence of private speech for children. Miller’s wife responded to his description:

> “Everybody knows that children talk to themselves before they fall asleep at night,” she told me[Miller]. “If you had read A. A. Milne as much as I have, you wouldn’t be so surprised.” And with that she produced a tattered copy of Now We are Six and recited […] (cited in Weir, 1962, p. 13)

The following description is Wineger’s (1997, p. 31) definition of internalization:

> Internalization is a negotiated process that reorganizes the relationship of the individual to her or his social environment and generally carries it into future performance. (cited in Lantolf & Thorne, 2006, p. 203)

Internalization and acquisition share similarities but are different in a single part. Marden and Herrington (2011) argued that there is a difference from Chomsky’s (1959, 1965) internalized mental process, Long’s (1996) the interactive negotiation, and Swain’s (1985; 1995) output modifications with sociocultural researchers (Donato, 1994, 2000; Frawley & Lantolf, 1985; Lantolf, 2006, 2000b; Lantolf & Appel, 1994; Lantolf & Thorne, 2006; Swain, Kinnear, & Steinman, 2010) in language learning. The difference is that when acquiring language, social and cultural context have important roles, with similar community members participating in activities. In this perspective, the learning process is dynamic and is in the same line with Wineger’s argument of a negotiated process.
Looking at the concept of internalization, implications for teaching needs are worth mentioning. Learners need to participate in their interest area. To be active and dynamic, the motive factor should be provided to the learner. Lantolf and Ahmed (1989) previously mentioned this fact in their research. Bringing a classroom material that interests learners’ needs can be an important task for teachers. In this perspective, my research has a benefit for attracting students’ interest in language learning.

2.3.4 Activity Theory

Activity theory was developed by Leontiev, and Vygotsky is known to be the successor to Leontiev’s work (Zinchenko, 1995). The following description is Leontiev’s activity theory (Lantolf, 2000b):

Activity in Leontiev’s (1978) theory is not merely doing something, it is doing something that is motivated either by a biological need, such as hunger, or a culturally constructed need, such as the need to be literate in certain cultures. Needs become motives once they become directed at a specific object. Thus, hunger does not become a motive until people decide to seek food; similarly, literacy does not become a motive for activity until people decide to learn to read and write. Motives are only realized in specific actions that are goal directed (hence, intentional and meaningful) and carried out under particular spatial and temporal conditions (or what are also referred to as operations) and through appropriate mediational means. Thus, an activity comprises three levels: the level of motivation, the level of action, and the level of conditions. Activities then can only be directly observed, by others, at the level of conditions. However, the motives and goals of particular activities cannot be determined solely from the level of concrete doing, since the same observable activity can be linked to different goals and motives and different concrete activities can be linked to the same motives and goals. (p. 8)

According to the description, activities consist of three levels of activity: What is the motive; what is the objective; and how will learners participate? In my research, motive is becoming determined to play World of Warcraft, the object is becoming a
winner (experienced gamer) in *World of Warcraft*, and participating is done online. These conditions fulfill the learner’s participation in the activity. McCafferty, Roebuck, and Wayland (2001) mention three similar conditions in activities. The first is “activity,” which is considered a human behavior and needs to be related with motive alone. Thus, whatever happens without motive, activity will not occur. Second is action and goal. These two concepts are inseparable, because actions require conscious goals (Wertsch, 1985). Thus, action is not an automatic process; rather, it has a purpose. The third is operation that needs to consider actions. I will explain the activity theory's function in the next paragraph.

Lantolf (2000b) explained that when activity develops, it does not develop as expected. In Cobb’s (1998) study, Lantolf’s explanation about activity development can be observed. Cobb observed children playing “shoe store” as an activity. These children were supposed to learn how to measure people’s foot length. However, the results did not show children measuring people’s feet, but rather they were measuring other objects and forgot about the shoe store play. Wen (2008) introduced four different studies (Coughan & Duff, 1994; Gillette, 1994; Parks, 2000; Thorne, 1999) that had new insights of language learning in activity theory. My research also has high interest in activity theory, because the phenomenon occurring in the research can be explained well through activity theory. For example, my participant has no intention to learn language while playing *World of Warcraft*. However, the procedure seems as though the participant wants to learn English. The reaction of the participant is different from the early intention. This situation can be explained through activity theory; thus my research has close connections with activity theory.
2.4 Language Socialization (LS)

2.4.1 Background

As the interest in the sociolinguistic approach grew in L2 research, sociolinguistic concepts became important in understanding second-language learning. Language socialization is a result of such a shift in L2-research interests. Watson-Gegeo and Nielsen (2003) stated that language socialization has a large role in understanding cognitive, cultural, social, and political complexity in language learning. Duff and Talmy (2011) describe the concept of language socialization below:

Language socialization represents a broad framework for understanding the development of linguistic, cultural, and communicative competence through interaction with others who are more knowledgeable or proficient. (p. 95)

Keywords important from their description are: “Framework,” “communicative competence,” “interaction,” and “more knowledgeable.” These four keywords help to understand how language socialization works in second-language learning. In order to understand language socialization, we primarily need to know about the history of early child-language-acquisition research. In the late 1960s and early 1970s, child-language-acquisition research was popular. At first the trend focused on language forms, and later on it shifted toward language functions. H. D. Brown (2007a) describes this situation:

… the generative rules that were proposed under the nativist framework were abstract, formal, explicit, and quite logical, yet they dealt specifically with the forms of language and not with the deeper functional levels of meaning constructed from social interaction. Examples of forms of language are morphemes, words, sentences, and the rules that govern them. Functions are the meaningful, interactive purposes within a social (pragmatic) context that we accomplish with the forms. (p. 33)

The interest in language-function research became concrete with Piaget’s (1955)
cognition and language development and Vygotsky’s (1978) social interaction and language development. Piaget stated that children learn language through things they already understand in the world; thus the cognition determines the language learning. Vygotsky criticized Piaget’s claim by arguing that it is too unidirectional. This argument moved from first-language acquisition to second-language acquisition and led to researching about what comes first: cognition or social interaction. Cognitive first- and second-language acquisition researchers usually studied about L1 children’s and L2 users’ linguistic development (Bloom, 1971, 1976; Gleitman & Wanner, 1982; Slobin, 1971, 1986, 1997). To these scholars, linguistics, psychology, and sociology are separated terms; thus research in linguistic development is separately done. However, sociocultural language acquisition researchers claim that cognition begins with social interaction. Therefore, their interest resides in language, along with culture and social knowledge (Batstone, 2010; Bronson & Watson-Gegeo, 2008). These scholars did not separate the fields of linguistics, psychology, and sociology but instead considered the three areas as an integrated discipline.

2.4.2 Language Socialization

How do L1 children or L2 users become members of a community? Moore (2005) argues that language-socialization research has the answer to this question. According to his statement, language has an important role in the language-socialization process. For instance, English used in a Boston community reflected its social and cultural meanings. If someone desires to become a member of the Boston community, they need to speak the
appropriate language, and other members of the community need to understand it. L1 children and L2 learners will need to interact with the Boston community members and the communication encounters need to occur during the interaction. Continuing to interact and participate in the Boston community will lead to what Ochs (1986) claims as both socialization through language and socialization to use language.

In the early 1980s, Ochs and Schieffelin generally opened up interesting data. Ochs observed Malagasy and Western Samoan children’s language development and socialization development, while Schieffelin observed Papua New Guinean children’s development. Their data presented that these two areas (language and socialization) should not be separately studied. Previous research in children’s first-language acquisition focused on their cognitive process. Sociocultural context was excluded in the research. However, Ochs and Schieffelin’s research opened the door to interest in studying language roles in socialization procedure. For instance, let’s look at an interaction between a caregiver and a U.S child. The interaction between the caregiver and the child is considered as a cultural phenomenon because during this process, children learn language and culture simultaneously, and the caregiver also learns something new from the child. This learning procedure is language socialization. The following is Ochs’s (2000) description of language socialization:

Language socialization research examines how language practices organize the life span process of becoming an active, competent participant in one or more communities. Communities comprise households, neighborhoods, peer groups, schools, workplaces, professions, religious organizations, recreational gatherings, and other institutions. Unlike language acquisition research, the analytic focus

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15 Previous research observed how caregivers gave comprehensible input to children. This was studied under the terms of child-directed speech (Gallaway & Richards, 1994; Sokolov & Snow, 1994; Valian, 1990)
rests neither on less experienced persons as acquirers nor on more experienced persons as input but rather on socially and culturally organized interactions that conjoin less and more experienced persons in the structuring of knowledge, emotion, and social action. (p. 230)

### 2.4.3 Second-Language Socialization

Language socialization can be referred to as what happens when someone is born in a particular community, and when acquiring a language they socialize in order to learn the community's values and norms. But if that person learns language in a second community, this is referred as “secondary socialization” (Yanagisawa, 2005, p. 36) and known as second-language socialization. Lave and Wenger (1991) stated that during humans’ growth process, they experience primary language socialization, and later as they enter a new sociocultural context they experience secondary language socialization, which is like a fine-line progress from L1 socialization to L2 socialization. However, Duff and Talmy (2011) distinguished L1 socialization from L2 socialization as below:

A great deal of L1 socialization research has focused on socialization as a powerful process whereby newcomers or novices accommodate, apprentice to, and resist linguistic and cultural norms they are exposed to. Yet, for a variety of reasons, some L2 learners do not experience the same degrees of access or acceptance within their new discourse communities as their L1 counterparts do. Despite their desire in many cases to be apprenticed into the practices of new L2 communities, they may face opposition from others (Norton, 2000; Norton & McKinney, 2011). Or they may be embraced by new communities but themselves not be fully invested in learning particular community ways because their future goals may not require it, or because they remain actively committed to competing social networks. They may want to retain an identity that is distinct from a particular (e.g., target language) community (e.g. Bronson & Watson-Gegeo, 2008), or for practical reasons they may be unwilling to straddle both (and perhaps other) community expectations and learning/performance demands simultaneously. Furthermore, they may feel conflicted about becoming fuller members in certain new L2-mediated social worlds. (pp. 97-98)

Duff and Tamly considered that the differences between L1 socialization and L2
socialization were in the socialization process rather than in the theoretical process. For an L2 learner, the socialization procedure could be limited because of the limited access to the target community, or the result could be different from what the learner has projected; thus only partial socialization can occur. However, the origin of L1 and L2 socialization remains the same. I am not, however, denying that research on L2 socialization is not separately conducted. L2 socialization research is conducted under the umbrella concept of second-language acquisition, and the development of L2 socialization research is an active area of study (Duff & Hornberger, 2008; R. Ellis, 2009; Mitchell & Myles, 2004; Ortega, 2009; Watson-Gegeo & Nielsen, 2003).

2.4.4 Theoretical Framework of Language Socialization

The basic premise of language socialization is simple: language and culture should not be separated but combined. However, the theoretical origin is broad and needs to be mentioned in this section. Duff and Talmy (2011) described the theoretical framework in nine different disciplines16.

The first discipline Duff and Talmy consider is linguistic anthropology17. Hymes

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16 Duff and Talmy (2011, p. 96) introduced underlying principles such as other socially oriented theories of second language acquisition and L2 socialization:
Kramsch and Steffensen (2008) – a deeply ecological perspective of learning-in-context
Bourdieu (1991) – a concomitant analysis of learning through praxis, that is, through observation, participation, and performance, in the everyday activities of communities of language users
Garrett and Baquedano-Lopez (2002), Schieffelin and Ochs (1986) – ethnomethodology

17 “Linguistic anthropology” is an interdisciplinary field dedicated to the study of language as a cultural resource and speaking as a cultural practice. It assumes that the human language faculty is a cognitive and a social achievement that provides the intellectual tools for thinking and acting in the world. Its study must
(1972) is the representative scholar in this area. He claimed linguistic anthropology as ethnography of speaking or ethnography of communication. Additionally, Hymes referred to his unit of analysis as a “speech event”\textsuperscript{18} in this area of study. Scholars such as Schieffelin and Ochs (1986) are considered researchers in this discipline. The second discipline Duff and Talmy consider is sociology. In the mid-20th century, sociology began to consist of linguistic and cultural aspects. Bernstein (1972), Bourdieu (1977), and Giddens (1979, 1984) are scholars in this discipline. The third discipline considered is cultural psychology, and Lave and Wenger (1991) and Rogoff (1990; 1995) are scholars in this discipline:

Cultural psychology is the study of the way cultural traditions and social practices regulate, express, transform, and permute the human psyche, resulting less in psychic unity for humankind than in ethnic divergences in mind, self, and emotion. Cultural psychology is the study of the ways subjects and object, self and other, psyche and culture, person and context, figure and ground, practitioner and practice live together, require each other, and dynamically, dialectically, and jointly make each other up (Shweder, 1990, p. 1)

The fourth discipline of interest to Duff and Talmy is cultural-historical psychology/sociocultural theory and activity theory. Engestrom (1999), Leontiev (1981), and Vygotsky (1978) are scholars known for this discipline.

Cultural-historical psychology (also called the school of Vygotsky, sociocultural psychology, socio-historical psychology, activity theory, cultural psychology, cultural-historical activity theory, and social-development theory) is a psychological theory formed by Lev Vygotsky in the late 1920s and further developed by his students and

\textsuperscript{18} Speech event and speech situation are different terms. For instance, if a speech performed in church, this is a speech event. However, if it’s speech between friends in a church situation, this is considered as a speech of situation. If the origination of speech is a place and one can observe the features of speech, this is an event. If it is a general place, it is considered as a speech situation.
followers in Eastern Europe and worldwide. This theory focuses on how aspects of
culture, such as values, beliefs, customs, and skills are transmitted from one generation to
the next. According to Vygotsky, social interaction, especially involvement with
knowledgeable community or family members, helps children to acquire the thought
processes and behaviors specific to their culture or society (Valsiner, 2012).

Systemic functional linguistics, the fifth discipline, “is an approach to linguistics
that considers language as a social semiotic system. It was developed by Michael
Halliday, who took the notion of system from his teacher, J R Firth” (Halliday, 2014).
Halliday (1980, 2003) is the representative scholar in this discipline. The sixth discipline
considered is semiotics19, and Hanks (1992) is a well-known scholar in this discipline.
The seventh discipline is literacy theory. Literacy theory studies how to interpret
literature. This context cannot be separated from interest; this area also has close
connections with language socialization, and Bakhtin (1981) is known for this discipline.
The eighth discipline is discursive psychology, Bamberg (2000), Korobov and Bamberg
(2004) are known in this discipline:

Discursive social psychology is the application of ideas from discourse analysis
to central topics in social psychology. It is not a social psychology of language.
Instead, it is an approach to psychology that takes the action-oriented and reality-
constructing features of discourse as fundamental. Whereas the dominant social
cognition paradigm gives a story of behavior produced on the basis of
information processing done on perceptual input, discursive social psychology’s
narrative revolves around activities done through discourse as parts of situated
practices (Potter & Edwards, 2001, p. 103)

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19 Semiotics has close connections with pragmatics. It studies connections with signs and sign-using agents
in language socialization.
The last discipline of interest to Duff and Talmy is learner subjectivity. Weedon (1987) defined subjectivity as “the conscious and unconscious thoughts and emotions of the individual, her sense of herself and her ways of understanding her relation to the world” (p. 32). Subjectivity occurs through socialization, which has close connections with language socialization. Garrett (2007) is well known for this discipline.

According to the nine disciplines above, the appearance of language socialization is not a happening, but as Schieffelin and Ochs (2008) or Watson-Gegeo (2004a) noted, it is considered as a paradigm. It can be almost considered as a revolutionary change in second-language acquisition research. The theoretical framework of language socialization is described as “toward a language socialization paradigm for second language acquisition” (Watson-Gegeo, 2004a, p. 339). He describes five premises to understand language socialization. The first premise of language socialization is that “linguistic and cultural knowledge are constructed through each other” (Watson-Gegeo & Nielsen, 2003, p. 157), and in observed language learning of L1 children or L2 adults, the children or adults are active and selective agents in both processes (Schieffelin & Ochs, 1986). Ochs and Schieffelin (1995) considered children's linguistic development as an outcome of the children’s routine activity with other interlocutors. Watson-Gegeo and Nielsen (2003) observed that children learn culture through participating in linguistically marked events. As seen, language and culture influence each other. Let’s look at Schieffelin and Ochs’s claim of active and selective agents. Imagine a teacher in a

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20 If this area interests you, read Siegal’s (1996) journal. It displays a “white” woman’s sense of self through socialization while learning Japanese in Japan.

21 All knowledge is subjective. Because every human’s experience is different, the interpretation of knowledge is different. The situated position differs the experience, and as a result the interpretation has to be different (Harding, 1993).
classroom teaching students. Although all the students are learning from the same instructor and same material, the outcomes for the students are all different. This is because students are interpreting the teacher’s instructions differently based on their own personal experience. Thus, looking at students as passive receivers of language is a mistaken view. Even students who underachieve in class are aware that it is their own choice.

Watson-Gegeo and Nielsen (2003, p. 157) describe a second premise of language socialization as below:

All activities in which children participate with adults and other children (whether in the family, community, or classroom) are by definition socially organized and embedded in cultural meaning systems, ”“but are inherently political22.” (Watson-Gegeo, 2004a, p. 340)

Language cannot exist independently, because language resides in a speech community or culture. The meaning of language form can be read differently depending on the use of place, situation, and community. Let’s observe Holmes and Brown (1987, p. 256) and Harlow’s (1990, p. 328) example23:

American: What an unusual necklace. It’s beautiful!

Samoan: Please take it. (cited in H. D. Brown, 2007a, p. 233)

American teacher: Would you like to read?

Russian student: No, I would not. (cited in H. D. Brown, 2007a, p. 233)

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22 The term “political” has close relations with context. Several decades ago, learning Japanese was not permitted or understood as strength in South Korea. It was forbidden to learn Japanese in schools. However, over the years, the South Korean government permitted public schools to teach Japanese. This example of political context has a strong influence on language socialization.

23 The examples displayed above are interactional routines. If the conversation’s participant uses language forms such as the examples, it is easier to understand the expectations of the speaker. Research results on interactional routines are good materials to understand language socialization. Sato and Watson-Gegeo (1992, January), Ulichny and Watson-Gegeo (1989) are suggested readings for better understanding of language socialization.
In the first interaction, the American complements the Samoan’s necklace. However, in the Samoan culture, if one receives complement about something, it is the cultural norm to give it as a present. The American’s compliment leads to a result that was not expected. The second interaction is a similar example. The American teacher used a polite word “would~” as a habit with the Russian student. However, the Russian student received it as a “yes or no” question and answered honestly. The American and the Russian have interpreted the same language differently.

These examples imply the fact that conversation activities reflect its cultural meaning system. Cole and Zuengler (2003) support this notion by claiming that using a language helps to understand the society’s structures or functions.

The third premise of language socialization theory is about context. Watson-Gegeo (2004a) claims that context-free learning does not exist. His argument provides solutions to criticism that ESL classrooms have received. The following is Watson-Gegeo and Nielsen’s (2003) statement:

Yet in typical ESL studies, the influence of the classroom context is largely ignored. Some SLA researchers see classroom contexts as “unnatural” (Cummins, 1992; Krashen, 1985) even though schooling in most societies is a normal and pervasive feature of socialization. Although classrooms involve a distinct discourse register that may not be as rich as other contexts in a student’s life, they are not inherently “unnatural.” (p. 157)

During the 1970s, the with- or without-context argument was substantial in language learning. Hymes (1972) and Paulston (1974) discussed the difference between linguistic competence and communicative competence and argued that “linguistic competence” only provides linguistic knowledge and lacks the functionality and interactivity part in conversations that “communicative” competence provides. Cummins (1979, 1980) distinguishes between cognitive/academic language proficiency (CALP)
and basic interpersonal communicative skills (BICS). He continues to state that the former is the language proficiency of “without context” happening in classrooms, and the latter is “with context” in classroom settings. Krashen (1982) distinguished between acquisition and learning; he distinguished acquisition as “without context” and continued to argue that language learning is difficult in this situation. When second-language acquisition research emergence was substantial, context was dealt with in a limited meaning and followed the notion of Brown and Fraser’s (1979) reductionist approach.

Current research in second-language acquisition began to focus on using context in education. Zuengler and Cole (2005) claimed that if primary socialization occurred in the home and family, school settings will naturally be considered as a secondary socialization place.

The fourth premise of language-socialization theory has relations with how language impacts socialization. Kanagy (1999) presents a study that observes L2 kindergartners’ language socialization. In the study, the participants learned Japanese as a foreign language for a year-long period. For this purpose, Kanagy chose three different classroom routines: Greeting, attendance, and personal introduction. As a result, the kindergartners predicted where to utilize the three routines successfully, which means L2 socialization has occurred. This study indicates how language has a positive influence in socialization.

24 “In psychology, reductionism refers to a theory that seems to over-simplify human behavior or cognitive processes, and in doing so, neglects to explain the complexities of the mind (“Reductionism in Psychology,” n.d.).”

25 Many scholars are researching about language socialization in L2 classroom settings (Atkinson & Ramanathan, 1995; Duff, 1995; Eckert, 2000; Harklau, 1994; He, 1997; Hoyle & Adger, 1998; Li, 2000; Losey, 1995; Pallotti, 1996; Poole, 1992; Schecter & Bayley, 1997; Willet, 1995).
The cognition factor is the fifth premise of language-socialization theory. Cognitive issues in language socialization are considered a hot topic in current second-language research. Long (1997) agrees with the view on studies of language use (or language socialization) but argues that second-language acquisition is fundamentally a cognitive process. Gregg (1996), Long (1997), and Poulisse (1997) dichotomized acquisition and use and implied that cognition encompasses acquisition and social areas encompass use. Additionally, Kasper (1997) argued that since acquisition consists of new knowledge structures, it should involve the cognition process. These scholars considered sociocultural approaches as a secondary role in language learning. Watson-Gegeo and Nielsen (2003) stated about this situation:

The cognitive/social dichotomy widely taken for granted in SLA theory obscures the relationship between the knowledge about language that learners construct and the social, cultural, and political contexts in which acquisition takes place. Cognition originates in social interaction. Constructing new knowledge is therefore both a cognitive and a social process. SLA theory’s need for just this sort of integrative perspective is one of the arguments for taking a language socialization approach in L2 research. (p. 156)

Cognitivist second language acquisition (SLA) researchers consider description and explanation as the purpose in linguistic development. For instance, the acquisition of L2 morphosyntax, phonology, lexis, and pragmatic phenomena such as speech acts are studied in this area (Duff & Talmy, 2011). In contrast, language-socialization research studies linguistic development but also studies the other forms of knowledge through language. For example, identity is an important factor in language-socialization research. During the socialization process, one’s status in the community is a must-know factor. Interest in ideology and culture is an important factor, too. As noted above, language-socialization research studies not only language but other areas. In my research, I would
like to mention the relations of language socialization and *World of Warcraft*. *World of Warcraft* is a community of novices and experts in game skills: it is a virtual environment; thus the nationality is not noticed. It is a community of practice centered on the interest of game play. To the people in this world, game proficiency is an important factor in the power relations. The participant does not have interest in learning language, but in order to increase the proficiency of game play, he shows intentions to learn language (English). The *World of Warcraft* environment provides an effortless observation of language-socialization mechanisms.

### 2.5 The Lexical Approach

#### 2.5.1 Background

Michael Lewis first used the term “the Lexical approach” in 1993. Lewis (1997, 2000) argued that L1 speakers hold numerous lexical chunks\(^26\) in their minds. He saw language as consisting of multi-word, prefabricated chunks rather than grammar and vocabulary.

For L1 children, they begin to produce one-word utterances a year after birth (H. D. Brown, 2007a). Also, L2 learners learn routines when they confront their target language community. Routines are language forms used frequently in a society (Kanagy, 1999), and routines are also a language form that indicate the beginning of socialization for L2 learners (Zuengler & Cole, 2005). In my research, *World of Warcraft* is a society;

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\(^{26}\) Chunking was coined by Miller (1956)
thus there are routines that exist in this society. In this perspective, the nature of language is that of words or word combinations in regards to the lexical approach (Richards & Rodgers, 2001), which is a theoretical framework for my research. The recent lexical-approach research is described below:

Lexical approaches in language teaching reflect a belief in the centrality of the lexicon to language structure, second language learning, and language use, and in particular to multiword lexical units or “chunks” that are learned and used as single items. Linguistic theory has also recognized a more central role for vocabulary in linguistic description. Formal transformational/generative linguistics, which previously took syntax as the primary focus, now gives more central attention to the lexicon and how the lexicon is formatted, coded, and organized. Chomsky, the father of contemporary studies in syntax, has recently adopted a “lexicon-is-prime” position in his Minimalist Linguistic theory. (Richards & Rodgers, 2001, p. 132)

The interest in the lexical approach leads to generating numerous terms27 for lexical chunks, which can be confusing. In my research, I will use the term routine for lexical chunks. Since the term “routine” varies among different scholars’ definitions, I decided to follow the definition of Wray (2002): “Words and word strings which appear to be processed without recourse to their lowest level of composition” (p. 4).

Wray claims that routines are words and word strings used as a single unit. The learner determines the “single unit” in my research. If the L2 learner does not analyze the word chunk grammatically and uses it as a single unit, then it is a routine. If the learner uses a single unit regardless of the typical scholars’ descriptions, then it is also called routine. For instance, Bateson (1975) stated that routine is a fixed as form and does not process through grammatical construction process:

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Fancy seeing you here.
Nice to see you. (p. 61)

The expressions above are fixed forms, and learners do not form the sentences grammatically. It is learned similarly to learning vocabulary. In my research, this case will be determined as a routine. Because the purpose of my study is to observe how language develops through implicit learning procedure in a society setting, and not to extensively analyze the routines, I will avoid discussing the in-depth details of routines.

2.5.2 Theoretical Perspective

Sinclair (1991) stated that we use two strategies when we speak. One is creativity, and the other is routines. Creativity is creating a sentence grammatically and then speaking it. Routine means using utterances that have been previously observed by the learner. Sinclair’s statement can be reproduced as a formula below:

Utterance = creativity + routines

Which then is used more often between creativity and routines? If every sentence is spoken with consideration of grammar, this would be very tiring for the speaker. Chenu and Jisa (2009) noted that people can utilize routines and reduce the time they’d spend constructing sentences through grammatical knowledge. This implies that creativity is time consuming. K. Park (2007, June 21) argues that when people speak, creativity does not appear during everyday conversation. He continues to claim that everyday speaking is influenced by the list of languages already embedded in people’s minds, not something they create while speaking. The important feature of people’s everyday speech is not
creativity but the fact that a variety of language is already embedded in their minds. Bolinger (1976) noted that “our language does not expect us to build everything starting with lumber, nails, and blueprint, but provides us with an incredibly large number of prefab[rication]s” (p. 1). According to this statement, when building structures, it is not done as when building with bricks. It takes too long and is a very tiring process to build a building in that way. Buildings are constructed with pre-built structures that are assembled together, and language is formed in a similar procedure. Bolinger argues that using grammar knowledge to make sentences is similar to constructing buildings brick by brick. This notion indicates that Bolinger concurs with using routines that are beneficial rather than emphasizing creativity. Fillmore (1979) claimed that “a very large of portion of a person’s ability to get along in a language consists in the mastery of [routines]” (p. 92). Fillmore also stated that routines are used more often than creativity. Perkins (1999) argued that “the main reason for the prevalence of [routine] in the adult language system appears to be the simple processing principle of economy of effort” (p. 56). He continues to argue that human brain consists of a “principle of economy of effort,” and thus routine is preferred over creativity. Sinclair (1991) adds to “economy of effort”:

[…] a language user has available to him or her a large number of [routines] that constitute single choices, even though they might appear to be analyzable into segments. To some extent this may reflect the recurrence of similar situations in human affairs; it may illustrate a natural tendency to economy of effort; or it may be motivated in part by the exigencies of real-time conversation. However it arises, it has been relegated to an inferior position in most current linguistics, because it does not fit the open-choice model. (p. 110)

Sinclair saw economy of effort as a human’s natural behavior; therefore, routines

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28 Fillmore stated this as formulaic utterances, but I decided to unify the term as “routines” in this research. Other terms that indicate routine will be displayed within [ ].
were more reasonable than creativity.

Let’s look at issues in making sentences using knowledge of grammar. One of the reasons that routines were overlooked was because of Chomsky-oriented linguists. Chomsky’s main concern was explaining how people were able to speak language forms they never confronted. This ability is called novelty in language. Chomsky (1965) claimed that “an essential property of language is that it provides the means for expressing independently many thoughts and for reacting appropriately in an indefinite range of new situations” (p. 6). However, Chomsky was too sensitive about the ability of individuals speaking language structure that was not spoken before. Wray (2002) criticizes Chomsky’s notion with two distinct notions:

1) The captain has illuminated the seatbelt sign as an indication that landing is imminent.
2) The captain has put the seatbelt sign on, which means we’re about to land. (p. 13)

According to Wray’s description, people have the ability to generate sentences such as example 1, but in everyday life choose not to use them. People actually prefer sentences such as example 2. Sentence 1 is a novelty that can be observed in Chomsky's (1965, p. 4) “ideal speaker-hearer’s intrinsic competence,” but in reality it is difficult to experience it. Additionally, Wray (2002) continues to criticize Chomsky by saying that his “novelty” is more a content-wise novelty rather than a structural novelty; thus mostly it is “a novel message” (p. 45). R. Ellis (1997) also criticizes Chomsky’s novelty notion:

3) I wish to be wedded to you.
4) You're marrying me is desired by me.
5) My becoming your spouse is what I want.
6) I want to marry you. (p. 9)
Sentences 3-5 are grammatically perfect. However, L1 English speakers will not use these expressions. Rather, sentence 6 is widely used. Ellis argues that L1 English speakers do not rely on grammar when choosing the sentences they speak. Normally, L1 English speakers use idioms or collocations more often. Pawley and Syder (1983) follow Ellis’s view on people not using grammar knowledge:

Native speakers do not exercise the creative potential of syntactic rules to anything like their full extent, and …. Indeed, if they did so they would not be accepted as exhibiting nativelike control of the language. The fact is that only a small proportion of the total set of grammatical sentences are nativelike in form – in the sense of being readily acceptable to native informants as ordinary, natural forms of expressions, in contrast to expressions that are grammatical but are judged to be ‘unidiomatic’, ‘odd’, or ‘foreignisms’. (p. 193)

Ellis argued that even native speakers did not use their full potential of grammar knowledge. If grammar is considered with its full potential, it will sound too weird to a native speaker’s ear. Ellis also sees that routines are more suitable in language use than creativity.

Then, when did interest in lexicon in nature begin? Routine recognition begins with lexicon. Parker and Riley (2009) stated that scholars still have diverse opinions on what the nature of lexicon’s meaning is. S. Park (2007) claimed that people are in dependent relations with their surrounding environment. Lexicon links with an indicated subject; thus it is connected with our world. In contrast, grammar is independent and has no connections with the world. Therefore, describing the connections between language and world is not about grammar, rather it is about lexicon. Vygotsky (2012) noted that lexicon is the language’s nature and also its basic unit. Syntax linguists state that in order to complete a sentence structure, lexicon is needed but has only partial influence. However, lexicon linguists argue that in describing meaning in language, grammar only
has a limited role. Chenu and Jisa (2009) noted that interest in lexicon began when SLA research began in the 1950s and 1960s. With Chomsky’s emergence, linguistic interest transferred to syntax, and the interest in lexicon decreased. Currently, the usage-based approach became an interest, which led to resurrection of interest in lexicon.

Tomasello (2000) claimed that regardless of whether you consider an L1 or L2 speaker, linguistic skills are a result of language accumulated through experiences in language usage events. Usage events have close connections with specific utterances used in specific situations (Robinson & Ellis, 2008). Tomasello (2003) noted that routines accumulate as people interact and develop linguistic skills and claimed that people are born with communicative functions before they acquire language. For example, “pointing” indicates for newborn babies that they understand communicative functions. Gestures and crying indicate the same thing for newborn babies. This means that before acquiring language, newborns are participating in prelinguistic communication. Thus, people have the ability to learn language through communication. In this case, if the language is centered on routine, it is termed a usage-based approach.

In a usage-based approach, abstract grammatical knowledge appears through language use. Croft and Cruse (2004) saw that when language form input increases, it shows regularity and causes the emergence of abstract grammatical knowledge. Nativist views of language acquisition are an opposite theory. As is known, in the nativist view, people are born with grammatical knowledge and apply this knowledge to the task of

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29 Actually, Chomsky was also interested in lexicon initially, and scholars who were interested in the same area were called lexicalists (see, Chomsky, 1965; Newmeyer, 1986). The early Chomskyan theory focused on sentence analysis, but it began with lexicon analysis.

language learning. In this perspective, interaction becomes important in a usage-based approach. Through interaction, language usage is possible, and as a result, grammatical knowledge is learned. Thus, lexicon becomes more important than grammar. Bates and Goodman (1997) saw that the size of vocabulary is an important factor in L1 acquisition, which means the role of lexicon grew larger. Hilton (2007) also stated that lexicon’s role is vital in L1 and L2 acquisition research. Chenu and Jisa (2009) noted lexicon had an important part in language acquisition and in the aftermath of language development. Additionally, Chenu and Jisa presented two patterns in language acquisition: a building-up process and a breaking-down process. The former is a process of building up isolated words and making them into larger units; the latter is a process of breaking down the chunks of unanalyzed language into smaller units. Current trend follows the breaking-down process, because the smaller units combine together and create the foundation of creative language. Pine and Lieven (1993, 1997) and Pine, Lieven, and Rowland (1998) studied the use of early L1 children’s routine (Chunks + slot-and-frame patterns) and how it changes language development. However, Richards and Rodgers (2001) criticize lexicon-centered English language education. They argue that if it is true that L1 speakers possess a large amount of lexicons, then how it will be taught to L2 learners to memorize all of the lexicons? Lamb (1998) noted his opinion on the criticism as below:

Linguists seem to underestimate the great capacity of the human mind to remember things while overestimating the extent to which humans process information by complex processes of calculation rather than by simply using prefabricated units from memory. (p. 169)

Lamb warns the grammar-oriented linguists that people’s cognitive structure is more than enough to memorize the simple routines. Memorizing the complex rules of
grammar and understanding is a painful experience. Because of grammar’s complexity and exceptions, it has been very challenging for second-language learners to learn grammar. Lexicon memorization can be tedious, but it is not difficult as mastering grammar rules.

I would like to define lexical spurt at this point. Lexical spurt means the speed of lexical acquisition accelerates. Nelson (1973) noted that up to approximately 50 words, the growth of speed in lexical acquisition is steady. Around 17 to 19 months, English L1 children begin to show the lexical spurt (Benedict, 1979; Goldfield & Reznick, 1990; Nelson, 1973). However, there is no known research conducted on lexical spurt for L2 adult learners. Only literature that observes the early L2 acquisition exists (R. Ellis & Heimbach, 1997; Wode et al., 1992). Hopefully, further research will be conducted in order to develop the lexicon-centered research.

Richards and Rodgers (2001) argued that in order to memorize the massive amount of lexicon and routines, there should be an environment that contains that amount of inputs. This argument raises questions in ESL, especially in EFL environments: can the environment in EFL situations provide a massive amount of input of lexicons?

As an answer to the question, I personally think media, especially movies, can provide the massive input environment. Arcario (1993), Ishihara and Chi (2004), and Longergan (1984) state that movies can provide similar inputs as real-world conversations. Additionally, they add that movie inputs are visual and authentic. Sturm

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31 L1 and L2 input has differences in quality and quantity. According to Cameron-Faulkner, Lieven, and Tomasello (2003), in an English-speaking environment, 2 to 3 year old children received an input of 5000 to 7000 utterances daily.
(2012) has demonstrated in his study that exposing target language and its culture to language learners eventually leads to development in language learning. Bueno (2009) adds that movies provide foreign language classes with a rich language source.

In Asia, there are two noticeable organizations that study movies in language learning. One is the Korea-based “The Society for Teaching English through Media [and Movies] (STEM)\(^{32}\),” and the other is the Japan-based “The Association for Teaching English through Movies (ATEM)\(^{33}\).” The two organizations share the view of utilizing movies to teach English language. Additionally, both organizations aim to provide exposure of English language input in EFL context. The difference among the two is that STEM is a theory-based approach and ATEM is a practicality-based approach. Especially, theories that STEM utilizes are focused on routines in utterances as Sinclair argued. Therefore, memorizing a lot of routines would be crucial in language development.

In a nutshell, lexicon-centered language education emphasizes routine-centered utterances. This is because of human nature’s natural avoidance of the massive energy production of the brain and the tendency to follow economy of effort. Additionally, the human brain has the ability to memorize lots of lexicon; thus lexicon-centered language education is possible. In my research, I anticipate observing how the participant playing *World of Warcraft*, will learn language in order to survive the virtual world.

\(^{32}\) STEM was founded in South Korea in 1998 (www.stemedia.co.kr)

\(^{33}\) ATEM was founded in Japan in 1994 (www.atem.org)
2.6 Noticing

2.6.1 Background

Despite the criticism, Krashen’s theory in English-language education has been influential. Considering the attacks on numerous areas\(^{34}\) of his theory, it’s clear that he has been well-known in the field of teachers\(^{35}\). H. D. Brown (2007a) also agrees that some of Krashen’s theories “intuitive[ly] appeal to teachers” (p. 296).

As is known, children are experts in language learning. Through experience, we observe children’s language acquisition very often. Although Stern (1970) claims that attempting to apply children’s L1 acquisition process to adults’ L2 learning is misleading, children’s L1 process is too fascinating to ignore. During the 19\(^{th}\) century, language teaching innovation emerged. C. Marcel (1793-1896), T. Prendergast (1793-1886), and F. Gouin (1831-1896) are scholars who were referred to as language teaching specialists. Their ideas about teaching came from children’s language learning. Although their research ended, because it was only observing children’s L1 language-acquisition process, the fascination with children's language learning existed early (Richards & Rodgers, 2001).

Krashen (1981, 1982, 1984) argued that if adults can learn as children, it is possible for adults’ L2 performance to achieve a native-like status. Krashen presented a

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\(^{35}\) Humans have an instinct to check others’ greatness. Skinner, of behaviorism, also has been criticized for his flaws in theory. But he is still the representative scholar of the behaviorism era. Krashen’s case is similar to Skinner’s.
fantasy of adopting children’s language acquisition to adult language learners. This statement led to the distinction of consciousness and subconsciousness. Additionally, Krashen’s (1986) argument of comprehensive input’s role was the motivator for Michael Long and Merrill Swain’s research.

Initially, Krashen (1983) pursued the concept of “noticing the gap” (pp. 138-139). However Mitchell and Myles (2004) noted that “in other versions of the [input] hypothesis, however the concept of ‘noticing the gap’ is omitted, and it seems that acquisition takes place entirely incidentally or without awareness” (p. 165).

2.6.2 What is Noticing?

Chenu and Jisa (2009) note that in L2 learning, noticing is inevitable, while comparing L1 acquisition and L2 acquisition:

It is relatively easy to list the differences between the acquisition of first and second languages. In first language acquisition children are acquiring knowledge about the world at the same time that they are acquiring language. Second language learners bring knowledge of the world to the task of learning new ways to talk about the world. (p.17)

L2 learners already experienced their knowledge of the world through L1. When learning L2, the learners are adjusting their world knowledge to a new code; therefore, they are “noticing” the new code. Watson-Gegeo (2004b) says that many cognitive scientists estimate that 95% of thinking is an unconscious process. Lakoff and Johnson (1999) termed it as “cognitive unconscious” and claimed that it existed outside of people’s awareness (p. 13) (see Baumgartner & Payr, 1995; Jacoby, 1991; Naatanen, 1992; Schneider, Pimm-Smith, & Worden, 1994; Solso & Massaro, 1995). Since the
“cognitive unconscious” exists outside of people’s awareness, the term “noticing” does not apply in this situation. Children’s implicit knowledge learned in L1 would be considered as part of a “cognitive unconscious.” However, H. D. Brown (2007a) argues that recent scholars claim that L2 learning research on awareness has increased. For instance, in Mackey’s (2006) empirical study, every time an L2 learner shows a “noticing” process, he or she reported back to the researcher. As a result, the L2 learner who reported the most back to Mackey had shown the most development in the second language. Study results of this type indicate that “noticing” is a plausible idea to explore further.

Zhang (2012) noted that since noticing, awareness, consciousness, and attention are used interchangeably, clear definitions are required. For example, Bialystok (1990), N. Ellis (2005, 1994), and R. Ellis (1994, 1997) utilized the implicit/explicit distinction in order to present second-language acquisition models. In these models, it is noted that conscious awareness and intention are needed for explicit processing, which is the same concept as noticing. When Hulstijn (2005) and DeKeyer (2003) also described the effect of explicit and implicit learning, they did not use the term “noticing.” However, they did imply that noticing is important in explicit learning and is not important in implicit learning. When he defined implicit learning, H. D. Brown (2007a) mentioned that implicit learning does not require conscious attention or awareness, which means “noticing.” J. Williams (2005) mentioned “implicit learning occurs without intention to learn and without awareness of what has been learned” (p. 269). He used the terms “intention” and “awareness” in order to distinguish between explicit learning and implicit learning. Intentional and incidental learning are very close to explicit learning and
implicit learning. When you want to define intentional and incidental learning, intentional learning is related with intention and attention; incidental learning is without intention and attention. It seems complicated, but the former needs “noticing” and the latter doesn’t. Schmidt (1994) considered consciousness and awareness as a same concept. Schmidt (1990, 2001) describes noticing as the conscious registration that occurs during focal attention toward language forms. Schmidt (1990) also described noticing as specific language forms that are subjectively experienced. Additionally, understanding (a higher level of awareness) was described as a generalization process acquired through specific language forms. He continues to note that L2 learners need noticing to acquire language form, but understanding is not necessarily needed. However, this does not mean noticing is more important than understanding. Leow (1997, 2000) demonstrated this idea in his study, in which students who can elicit generalization were known to be learners who acquired the language better than other students; second were students who were only doing noticing; and last were students who could neither notice nor understand. H. D. Brown (2007a) defined awareness and used the terms “intention” and “consciousness”:

**Awareness, for the moment, may be thought of as analogous to conscious (vs. subconscious) learning, in which learners are in intentional control of their attention to some aspect of input or output.** (p. 292)

Attention resides very closely within conversation situations. As noted in the

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36 Schmidt (1990, 1995) divides consciousness into three categories. The first category is consciousness and awareness. Second is consciousness as intention. The last is consciousness as knowledge. Noticing refers to the first category, consciousness as awareness; thus the first category will be discussed in this chapter.

37 Registration means using language suitable to a specific situation. For example, when lovers talk, when we talk to strangers, or when we talk to an angry friend, we use specific voices in order to make sense of the social situation.

38 The underline is to emphasize the terminology.
definition above, attention also resides very closely during input situations. Attention is controlled by intention, and the umbrella concept above all is awareness, because attention and intention exist in the awareness. Brown looked at consciousness and awareness as the same concept. However, he does not prefer the consciousness concept because he argues that consciousness has been a controversial term throughout the history of language education, so it is better to avoid the term.

Researchers began to have more interest in the concept of awareness (Leow, 1998; Norris & Ortega, 2000; Robinson, 1996; Rosa & Leow, 2004; Rosa & O'Neill, 1999; Simard & Wong, 2004). According to Rosa and Leow (2004), a general consensus is happening about the role of attention in L2 learning, but the role of awareness is still showing less agreement. One of the biggest clashes is whether awareness and learning should be dissociated (e.g., Carr & Curran, 1994; Curran & Keele, 1993; Hardcastle, 1993; Nissen & Bullemer, 1987; Reber, 1993; Tomlin & Villa, 1994; Velmans, 1991) or if learning should be impossible without awareness (e.g., Alanen, 1995; Leow, 1997; Robinson, 1995; Rosa & O'Neill, 1999; Schmidt, 1995). For instance, Tomlin and Villa (1994) claim that awareness and learning are dissociated. In their model of input processing, attention is divided into three functions: alertness, orientation, and detection. Alertness is cognitively preparing for language function inputs. Orientation is choosing the direction of language form that has been input (thus it has connections with rehearsal). Finally, detection is cognitive registration on the input of the language form. Detection is on the level of acquisition and is the closest to awareness, but all three functions do not require awareness to operate (Tomlin & Villa, 1993). Schmidt (1990, 1993, 1994, 1995) noted that awareness is a necessary and sufficient condition that is operated before the
intake of L2 data. Further discussion of this idea will be noted in 2.6.3.1.

Tomlin and Villa saw noticing as detection. However, Schmidt's concept of noticing differentiated in one area: that detection does not require awareness. On the other hand, Robinson’s (1995) “noticing” is a merger of Schmidt and Tomlin and Villa's concept of “noticing.” According to Robinson, noticing is detection plus rehearsal.

To sum it up, for Schmidt noticing = awareness; for Tomlin and Villa noticing = detection (a subtype of attention); and finally for Robinson it is noticing = detection + rehearsal. In my research I subscribe to Schmidt’s notion of noticing.

2.6.3 Researchers Favoring the Role of Noticing

Krashen (1986) claimed that “comprehensible input is the only causative variable in second language acquisition” (p. 62). He argued that with only input, L2 acquisition is possible. Even if Krashen’s claim would be true, there are plenty of questions to be raised. Beebe (1985) argued that it is important to determine who is providing comprehensible input. Beebe’s argument indicates that Krashen is not specifying the main subject that is providing comprehensible input: the learner or the native speaker. Beebe continued to note that the learner is an active participant who makes the input comprehensible. Seliger (1983) argues that in order to receive comprehensible input, the L2 learner needs to initiate and sustain the conversation; thus an active L2 learner is needed. Long (1996), who subscribes to the view of the interaction hypothesis, argued that Krashen’s comprehensible input is a result of modified interaction. Between an L2 learner and native speaker, active interaction needs to occur in order to create comprehensible input.
H. D. Brown (2007a) criticized that in Krashen’s input theory, L2 learners are viewed as passive learners. Reinders (2012) also posed a critical view of Krashen’s input role. He criticizes that Krashen’s (1981) occurrence of intake relies too much on the input quality that learners receive. According to Krashen and Terrell (1983), in order to change from input to intake: 1) language forms and meaning needs to be connected; and 2) learners will need to notice the gaps between the knowledge of their current target language system and the knowledge of the new input system. Krashen’s L2 learner can mistaken as being active: connecting form and meaning, realizing the gap difference between the current language knowledge and new input language knowledge. However, Krashen’s notion still lacks the part where learners alter the new input to suit their ability and ask native speakers’ assistance to change to modified input. Additionally, Reinders notes that Krashen uses the terms intake and input slightly arbitrarily. Faerch and Kasper (1980) argued that comprehensible input is used only for comprehension because in their study data, learners’ linguistic system of interlanguage does not change. Swain (1985, 1995) also argues that comprehensible input is only effective in comprehending L2 texts, because the learner normally focuses on semantic processing. As a result, the development of L2 syntax and morphology is not affected.

In order to understand the noticing role, we need to understand the concept of intake. Reinders (2012) studied specific details of intake and categorized intake’s definition into three columns. First is intake as a product (e.g. Carroll, 2001; Corder, 1967; Faerch & Kasper, 1980; Gass, 1997; Krashen, 1973; Leow, 1993; Loschky & Bley-

39 See, 2.6.1 background
Vroman, 1993; Sharwood-Smith, 1986; Van Patten, 1996, 2002); second is intake as a process (e.g. Boulouffe, 1987; Chaudron, 1985; Hatch, 1983); and third is intake as both a product and process (e.g. Kumaravadivelu, 1994). Sharwood-Smith describes input and intake as the following: he presents input as goods displayed to customers, which they can pick it up if they desire; intake occurs when the customer decides to pick up a desired article and make it his or her own. The customers’ desire of an article would be noticing the input.

As noted above, in Krashen’s language acquisition theory, the learner’s role is viewed as that of a passive learner. His language acquisition theory heavily relies on the quality of input and does not consider the learner’s role. The next section will describe theories to consider the input process of an active learner. It begins with the “noticing” hypothesis.

2.6.3.1 Noticing Hypothesis

In the 1980s, second-language research focused on the unconscious nature of linguistic knowledge (Schmidt, 2010). Through two case studies, Schmidt questioned if language development could occur unconsciously. The first case study involves a 30-year-old Japanese adult who came to the U.S. and tried to apply naturalistic English language learning. Formal learning such as classroom settings were excluded in order to make it more similar to a natural process. Schmidt’s attempt of a naturalistic environment is similar to the participant in my research learning language through World of Warcraft. Schmidt referred to the Japanese participant as Wes. Schmidt (1983, 1984) observed
several years of Wes’s English development. Wes’s overall English proficiency was good, only minimal grammatical errors were noticed. After three years of observation, Schmidt described Wes’s grammatical ability as follows.

Even though Wes received the input “I went to the beach yesterday,” he spoke it as:
7) Yesterday I’m go beach.
8) Tomorrow I’m go beach.

In examples 7 and 8, Wes missed the article, and neither prepositions nor tense-making are observed. Schmidt (2010) did not know exactly why this occurred but carefully noted that Wes might have failed the necessary noticing. Additionally, Wes did not acquire possessive pronouns. After studying Wes for three years and observing grammatical forms failing to achieve an acquired status, Schmidt concluded that Wes failed noticing. Wes was familiar with implicit learning but failed noticing in specific language forms.

The second case study is from Schmidt and Frota’s (1986) research. It contained Schmidt’s personal experience learning Portuguese while residing in Brazil. He learned Portuguese for five weeks in a formal classroom setting and spent the rest of the time talking to native speakers. The result indicates that even with massive input, without consciously noticing, language forms are not acquired. Based on these studies, the noticing hypothesis was grounded. Additionally, Schmidt’s experience and study describes that without noticing, success in L2 learning is impossible. When learning from

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40 Implicit learning is learning without consciousness and does not notice the learning nor will be able to elaborate what the learner had learned.
formal teaching or receiving language input without noticing, learning language will be a challenge. This notion indicates that noticing is a prerequisite for learners transferring from input into intake (R. Ellis, 1997; Leow, 2000; Robinson, 2003; Schmidt, 1990, 1994). However, Schmidt (1994) claims that in his early research he referred to noticing as a necessary and sufficient condition to transform input into intake but later lowered the argument stakes to say that noticing is just necessary. Lightbown and Spada (2006) mention the noticing hypothesis as the following:

Richard Schmidt (1990, 2001) proposed the ‘noticing hypothesis’, suggesting that nothing is learned unless it has been noticed. Noticing does not itself result in acquisition, but it is the essential starting point. (p. 44)

2.6.3.2 Output Hypothesis

Swain questioned Krashen’s notion that comprehensive input is a necessary and sufficient condition for L2 development. Swain (1985, 1995) taught French as a second language to immersion students in Canada and stated that the students’ comprehension abilities (e.g., reading and listening) were above average, but their production abilities (e.g., speaking and writing) were lower than average. This experience acknowledged to Swain that only second-language output can measure all-around interlanguage development. The output hypothesis was based on this experience. However, Swain’s theory observes more than the complete grammatical processing through interactions. Swain (1995) proposed three functions related to noticing. The first is the noticing/triggering function. According to Swain, language production lets L2 learners notice their current errors to express meaning. Swain’s (1995) statement indicates that as L2 learners participate in conversations, they understand the gap between what they want
to say and what they can say. This is known as “noticing the gap.” It means that when L2 learners are not satisfied with their language production, they question their linguistic problems and pay attention to their input when it is observed through study or through listening to other people’s conversation.

The second function is the hypothesis-testing function:

This function suggests learners may use the method of ‘trial and error’ for testing her/his production expecting to receive a feedback. This feedback can be applied in two ways: recasts and elicitations or clarification requests. (Liberato, 2012)

In this function, L2 learners will use a recently learned new structure or new language form. Expecting feedback of trial and error in the language produced means that the learner is consciously paying attention the feedback: this procedure is referred to as noticing.

The third function of the output hypothesis is the metalinguistic function. L2 learners get a chance to reflect on their own language when interacting with others (e.g. teachers, peers, etc).

2.6.3.3 Interaction Hypothesis

The interaction hypothesis goes through two stages, and in 1996 the more familiar Long’s interaction hypothesis was founded. Initially, Long (1983b) normally researched the linguistic features of native speakers’ utterances with L2 learners. His data described linguistically simplified language in native speakers’ discourse. Later, Long (1996) began to focus on the processing of environmental language. For example, suppose L2 speaker A and native speaker B are talking. Due to language barriers, there can be limits and
This can be caused by the fact that A couldn’t understand B or B didn’t fully understand A. In this situation, A will notify B that A cannot understand B, and then B will try to simplify or repeat the sentences again. Long calls this procedure that B is attempting to do to help A “language processing.” Johnson and Johnson (1999) described the two types of Long’s interaction hypothesis, noting that the former hypothesis is a strong form and the latter is the weak form. In the strong form, interaction itself is language development. In the weak form, interaction is a chance for learning to occur, and only when L2 learners actively engage can one expect language development.

Long’s interaction hypothesis and Krashen’s input hypothesis share similarities. Both hypotheses emphasize comprehensible input. The difference is that the former is based on the meaning negotiation between the interlocutors, and the latter is based on the i+1 concept. Zhang (2012) describes this notion that in the interaction hypothesis, input occurs as a result of interaction modification, and in the input hypothesis, the input occurs by itself. Mitchell and Myles (2004) noted that interaction modification was used when there were communication difficulties between the interlocutors, and the conversational tactics were used to solve these difficulties. Conversational tactics consist of four components: repetitions, confirmation checks, comprehension checks, and clarification requests. Pica, Young, and Doughty (1987) define conversational tactics as below:

- **Confirmation checks**: Moves by which one speaker seeks confirmation of the other’s preceding utterance through repetition, with rising intonation, of what was perceived to be all or part of the preceding utterance.

- **Clarification requests**: Moves by which one speaker seeks assistance in understanding the other speaker’s preceding utterance through questions (including wh-, polar, disjunctive, uninverted with rising intonation or tag), statements such as I don’t understand, or imperatives such as Please repeat.
Comprehension checks: Moves by which one speaker attempts to determine whether the other speaker has understood a preceding message. (p. 17)

Conversation tactics all require attention, which means that conversation depends on noticing. The next description explains the relations between input hypothesis, output hypothesis, and interaction hypothesis:

Through the Interaction Hypothesis, Professor Long integrated and reconciled two hypotheses on second language acquisition (SLA): the input and the output hypotheses. The Input Hypothesis states that a language learner only needs to be supplied with “input” through the forms of reading, listening to conversations, and lessons on grammar and vocabulary. The Output Hypothesis, on the other hand, stresses the importance of practicing and speaking to retain and remember the language. The Interaction Hypothesis combines both the “input” and “output” by stating that interaction is not only a means for a learner to study the language, but also a way for the learner to practice what he has learned ("What is the interaction hypothesis?," n.d.).

2.6.3.4 Input Processing Theory

Van Patten (1996, 2002), with his associates, suggested the input processing theory. As in the input, output, and interaction hypotheses mentioned above, this theory also attempts to see how environmental L2 input changes to intake. The difference with other theories is that it does not explain theoretically how input becomes intake; rather, it presents a set of principles (Mitchell & Myles, 2004). However, Sheen (2007) explains VanPatten’s (2002) theoretical model as below:

VanPatten accepts the fundamental role of input and uses the term ‘input processing’ (IP) for the cognitive process which occurs when input is understood and integrated into interlanguages. He characterizes IP as being concerned with how learners understand the underlying grammar and acquire it (ibid.: 757). However, he regards the IP triggered by simple classroom exposure to input as insufficient to bring about accurate acquisition. (p. 161)

Input is an important factor to not only Krashen but also to VanPatten. Van Patten (2002) stated that input processing theory explains how L2 learners can get language
forms from input during the process of understanding while their primary focus is on meaning. Sheen (2005) noted that this theory’s advantage is that it shows how L2 learners acquire accurate grammar while focusing on meaning. The following example describes how input processing theory positions itself to acquire grammar. According to Mitchell and Myles’s (2004) description of principles, L2 learners show a tendency of semantic processing over morphological processing.

9) I borrowed the book yesterday.

Example 9 consists of two types of past tense. One is the “-ed” verb inflection, and the other is the adverb “yesterday.” During the procedure, semantic processing applies and shows a tendency to only notice “yesterday.” Then the “-ed” verb inflection is ignored. This phenomenon has a pedagogical implication in the field. In order to let students notice the verb inflection, the content word “yesterday” is not given. This would let the students learn the grammar they need. The next description explains the difference between input processing (IP) and processing instruction (PI):

It is important to differentiate the terms ‘IP’ and ‘PI’. The former derives from VanPatten’s theoretical model and refers to what is assumed to occur in the brain on perceiving input. The latter refers to what the teacher has the learners do in order to notice the grammar of the input (Sheen, 2007, p. 162).

IP can be referred to as a theory, while PI would be a practice.

Focus and form also need to be clarified, because Hashemnezhad and Sanaz Khalili Zangalani (2012) noted that PI is the explicit focus on form. In current second-language acquisition research, the debate is about whether L2 learners’ interlanguage system is implicit or explicit. An implicit interlanguage system processes linguistic data without conscious effort. In an explicit interlanguage system, L2 learners should be paying attention to language forms during meaning-based activities (Doughty & Williams,
Recent research in SLA favors the explicit model of L2 learners’ interlanguage system. Long (1988, 1991) argues that focus on forms and focus on form should be distinguished. Focus on forms was used in traditional grammar education (DeKeyer, 1998). When teaching grammar, for example, it is teaching verb endings or agreement features without the consideration of context. However, the interest in the constructive perspective in language increased, and it was discovered that focusing on the language function instead of language forms was more logical (H. D. Brown, 2007a). Focus on form saw that language development can be expected during meaning-based activities, focusing on attention. Doughty and Varela (1998) agreed that, without interrupting the conversation, the attention on grammar should be limited when providing learners with corrective feedback. The interest in focus on forms diminished; thus teaching grammar without context was no longer welcomed in second-language research.

So far, I have explained the six perspectives of the theoretical framework in my research. Playing World of Warcraft means that, first, it has connections with Krashen’s (1981, 1982, 1984, 1985, 1986) naturalistic way of learning. Second, World of Warcraft provides tasks to gamers; in a Task-Based Learning and Teaching perspective, World of Warcraft tasks becomes the real-world tasks. Third, Lantolf (2000a, 1994, 2000b) describes language as a mediation tool in a socio-cultural perspective. For example, in World of Warcraft, gamers use language as a tool and learn how to play the game, how to strategize actions, and also how to socialize with other gamers and learn the specific culture of World of Warcraft. Thus, my research has relations with socio-cultural theory. Fourth, in the language-socialization perspective, the participant of my research follows
Ochs’s (1986) claim about socialization through language and socialization to use language. The fifth perspective, the lexical approach (Lewis, 1993, 1997, 2000), also emerges in the participant’s routines related with the game. Finally, Schmidt’s (1990, 1993, 1994, 1995, 2001, 2010) proposal of the noticing hypothesis also relates to my research due to the fact that the participant is noticing language in order to develop language.

2.7 Previous Research

Research of game study and learning has been influenced by many scholars. de Aguilera and Mendiz (2003) argue that video games help promote educational abilities such as: creativity, problem-solving, perception, and logic skills. Additionally, interest in new literacy draws scholars (Lankshear, Gee, Knobel, & Searle, 1997; Steinkuehler & Duncan, 2008) to observe the potential abilities those video games can have in learning, in this case learning language. Coleman (1990) and Taylor (1990) saw the benefits of utilizing video games, especially commercial off-the-shelf (COTS) games, in language learning context. The interest in using COTS games has spread out into multiple areas of language learning. In this section I will specifically observe the language learning research done in massively multiplayer online games.

2.7.1 Massively Multiplayer Online Games and Second Language Learning in Research

Scholars (Peterson, 2010; Steinkuehler, 2007; Thorne, 2008) state that massively
multiplayer online games have a potential to provide language learners with an opportunity to develop their language abilities due to the fact that MMOGs contain a collaborative community and a relationship status with other players of the game. Collaboration is vital for players to enjoy the full content of the game (Nardi, Ly, & Harris, 2007). Moreover, Steinkuehler (2004, 2006) and Delwiche (2006) incorporated Lave and Wenger’s (1991) notion of situated learning and stated that massively multiplayer online games are a great environment for new players to learn the shared values and practices from experienced gamers. Additionally, Ducheneaut, Yee, Nickell, and Moore (2006) discovered that World of Warcraft is a social game even when players pursue their own individual goals (Palmer, 2010, p. 16). Such players will gradually immerse with the social community as they play the game. Garcia-Carbonell, Rising, Montero, and Watts (2001) argue that simulation and gaming have an advantage in second language classrooms because gaming delivers an authentic surrounding of a target language interaction.

The gamers of massively multiplayer online games can enjoy the interactive domain aspect of their games. Game studies have influenced many areas in language learning. First of all, scholars observed the development of linguistic ability through video games. Ball (1978) noted that video games have potential in developing communication skills. Steinkuehler (2007) observed that players develop their language skills in letter writing, narratives, poetry, and debating in Lineage 2\textsuperscript{41}. In EverQuest 2\textsuperscript{42},

\textsuperscript{41} Lineage II is second sequel of Lineage, which was set 150 years earlier than Lineage II. The game was produced by Microsoft Windows and the genre is a massive multiplayer online role-playing game (MMORPG) (source: http://en.wikipedia.org/wiki/Lineage_II).
Rankin, Gold, and Gooch (2006) discovered vocabulary development through game play. Rankin, Morrison, McKenzie, Gooch, and Shute (2009) conducted another research with eight native speakers of English and eighteen advanced ESL learners and observed vocabulary development including game-related and college-level vocabulary. The result shows that subjects experienced difficulties in the in-game interaction but also produced extensive target-language output. Bryant (2006) conducted a case study to observe the development of German modal verbs in game play of *World of Warcraft*. In this study, Bryant encouraged the participant to use the modal verb in various situations; as a result, the participant learned how to utilize the modal verb. Palmer (2010) observed Spanish speech-act development in game play of *World of Warcraft*. She concluded that social interactions and community of practice had the biggest influence in speech-act development. Scholars (Purushotma, Thorne, & Wheatley, 2008) suggested that video games have value in using task-based learning in a language classroom setting. According the scholars, students’ engagement can maximize their language learning experiences through incorporating narrative structure, play, and social interaction found in video games. In an educational game, *MUVE*[^3] *Quest Atlantis*[^4] (QA), several scholars (Zheng, Young, Wagner, & Brewer, 2009) observed interactions between non-native

[^2]: *EverQuest II* (*EQ2*) was developed by Sony Online Entertainment (SOE) and was a prequel to *EverQuest*, which was launched in 2004, November 4. The genre of this game is massive multiplayer online role-playing game (MMORPG) (source: http://en.wikipedia.org/wiki/EverQuest_II).

[^3]: *MUVE* (plural MUVEs) is a multi-user virtual environment, and is known to mainly describe massively multiplayer online games that are not specifically game related (source: http://en.wikipedia.org/wiki/MUVE).

[^4]: *Quest Atlantis* (QA) is a computer learning environment that helps the ages of 9 to 15 children to immerse in meaningful tasks (see QuestAtlantis.Org). It combines educational research and gaming environments in order to generate an adequate mixture of learning, playing, and helping. QA utilizes the strategies learned from games and allows the children to adventure the virtual settings to perform quests (source:http://en.wikipedia.org/wiki/Quest_Atlantis).
speakers and native speakers of English. The game provided a chance for both non-native
speakers and native speakers to take both roles of being a teacher and student. Native
speakers assisted with their linguistic knowledge, and non-native speakers contributed
with knowledge of cultural facts related to the given quests. As a result, non-native
speakers had a chance to engage in meaningful interaction with the native speakers, while
native speakers had a chance to learn a diverse culture from the non-native speakers. Roy
(2007) observed potentials in Spanish-language learning in *World of Warcraft*. He noted
that quest narratives provided correct grammatical forms of Spanish and gave gamers a
chance to be exposed to wide range of new vocabulary. Another study of *World of
Warcraft* involved middle school Chinese students and U.S. graduate students playing
together. This project was conducted by Ed Schneider and Kai Zheng from SUNY in
2007 and discovered that Chinese middle school students favored the class and believed
that conversational English was improved during the play of *World of Warcraft* (Waters,
2007, October 1).

Another beneficial use of massively multiplayer games is that gaming has positive
Peterson (2010), Thorne (2008), Thorne, Black, and Sykes (2009) and Yee and Bailenson
(2007) argued that massively multiplayer games help L2 learners to lower their anxiety in
learning a second language. Cooke-Plagwitz (2008) claimed that virtual environments
such as *World of Warcraft* can not only provide second language learners with a rich
interactional world of the target language, but also help the learners to increase their
feeling of belonging in the target community. In Grantham, O’Brien, Levy, and Orich’s
study (2009), high school students involved in studying German had an opportunity to
participate in a virtual environment and utilize German to interact with the NPCs (Non-Player Character). Students’ response had shown that they were excited to feel like they were in Germany and had chance to experience to taste a part of Germany's culture. Lam (2004) presented in her study that online domains help learners to increase their confidence, which leads to increasing the learners’ language ability. Black (2008) and Lam (2000) argued that positive and supportive feedback helped the students with “counterbalance” (Yi, 2007, p. 35) for the difficulty they had in English classrooms (Thorne et al., 2009, p. 807). Peterson (2010) claimed that role-playing games lower inhibition in conversational situations. Thorne (2008) observed two gamers, one American native speaker of English and a speaker of Russian from Ukraine. The result indicated that intercultural exchanges between gamers lead to increasing motivation and enjoyment in language learning. Yee and Bailenson (2007) presented in their research that players were aware of their digital avatar’s appearance, and it lead to affecting their speech in game. Additionally Yee (2006) and Soares (2008) stated that female players of World of Warcraft can face challenges because of their gender. However, players have the freedom to choose the gender of the character, and it is considered a normal practice for players to choose the opposite gender. For example the participant in my research only plays female characters even though he is a male. The participant explains that he wants to play a character he can see as a “pretty” character (the female character’s appearance is prettier and sexier than the male one). He also says that since he is male, there is no reason for himself to see another male in the game. However, due the fact that players can determine the gender of the character, it also has an influence on the way they talk; in other words, the linguistic expressions are influenced by the gender, too (Palmer,
As noted above, the research on language learning through massively multiplayer online games has been conducted in linguistically and affectively related areas. Considering the benefits of using massively multiplayer online games in education, for instance, research has found that games can provide gamers with a real-life society, and ESL learners can be exposed to their target language. Research has also shown that gaming helps learners to lower their anxiety toward speaking and enhances a sense of belonging in the community. The previous literature studied the relations between video games and language learning. However, in my research, the relations between language development and *World of Warcraft* are different. First, this research is a longitudinal study. Language development needs to be observed over a year-long period. Second, I try to present what language development means in this research. Third, the language learning subject was an L2 adult. The fact that it is an adult language learner can contribute to other ESL related researches. Fourth, although the research is about language learning, it observes through video games, in this case *World of Warcraft*. It will be possible to observe features of *World of Warcraft* that contribute to language learning. The results can have implications for language classrooms. All in all, this research has much significance.
CHAPTER 3. RESEARCH DESIGN IN ETHNOGRAPHIC RESEARCH

In this research, I mirror the research design of Heath’s (1983) study.

3.1 Research Area

The learning of English as a second language involves: (1) a social situation; (2) focusing on natural learning; and (3) determining to what extent language can be expected. In this research, a 21-year-old male, who has no intention to learn the English language, plays the game *World of Warcraft*. The game environment promotes social interaction for the gamers. As noted in the previous chapter, the relations between second-language development and social interaction has been emphasized through socio-cultural theory (e.g. Lantolf, 2000a, 2000b) and second-language socialization (Poole, 1992; Watson-Gegeo & Nielsen, 2003). In addition, the game does not consist of a formal learning and teaching setting; thus natural learning Krashen (1985) can be expected. In this perspective, my research emphasizes how much second-language development can occur through the gaming socialization process. Because the participant was not interested in English-language learning, it is interesting to study his English-language development as he plays. If language development occurs, I will be analyzing how and in which form happened. For example, I’ll be analyzing if the language development occurred in a grammatical standpoint or, as the lexical approach notes, in chunks or memorized patterns (Pawley & Syder, 1983). Additionally, I’ll be noting the type of strategy used by the participant in the various situations (Schmidt, 1990).
If the participant shows language development, I intend to find the cause of it. For instance, I intend to observe from a task-based learning and teaching (e.g. J. Willis, 1996) perspective, if the language learning occurred through activities that have been generated through real communications.

Finally, I will utilize field notes and interviews in order to observe when the participant begins to find interest in language learning.

3.2 Context

Nunan (1992) claims that context is crucial in ethnographic research. Wilson (1982) and Watson-Gegeo and Ulichny (1988) shared this view on context. They argued that research needs to be focused on real situations, because the experience of real situations is how people actually live everyday life. This is the meaning of context.

McDonough and McDonough (1997) mention the importance of context as follows:

First of all, the notion of context becomes crucial, because it sites the phenomenon of study in space and time, and can therefore tap into the constantly fluctuating interactions and relationship patterns in a group of people working together. (p. 114)

Then what is context in *World of Warcraft*? Players in the game *World of Warcraft* play together but also learn how to survive in the virtual world. Although the beginning of the game can be played alone, as the player advances through the game, players need to interact with others in order to enjoy the full content of the game. Additionally, the game’s complexity becomes greater as the player advances; thus players are constantly in a situation where coordinated teamwork is required to discover strategies and knowledge necessary to play the game.
3.3 Material

3.3.1 Introduction of Material

_World of Warcraft (WoW)_ is one of the most popular online video games, with 10.4m active subscribers (now 7.6m in 2014) in North America, Asia, and Europe. Produced by Blizzard Entertainment, it is a massively multiplayer online game (MMOG) in which players are connected through the Internet in persistent worlds. Players develop characters that explore, fight, socialize, make money, take up professions, and advance through 60 levels (now 90) of play. Play is complex, requiring the development of strategy, discovery of thousands of game facts, and subtle choices about character development... No teachers, coaches, or curriculum explain the game. None of the familiar supports of formal education are in evidence—but no one fails _World of Warcraft_ (Nardi et al., 2007).

As Nardi points out, as a player advances through the game, the need to interact with others grows noticeably. As the player advances toward the end game, more content of the game cannot be done alone. Players need to ask other players to help out with crafting items and collaborate with others to clear dungeons or conduct raids. Because _World of Warcraft_ has a setting that uses language constantly, it has a potential environment in which to learn language functions as the learner plays throughout the game. _World of Warcraft_ is a community formed by the players. What this means is that a language learner can be accepted into the community based on game knowledge—not by accent, language, or race. When language learners go abroad to English-speaking countries, their engagement within the community is relatively minor. Cultural, language, and racial differences prevent language learners from being accepted as members of the community. It does take a long time to scratch the label “foreigner” off the forehead of the language learners before they can be accepted as community members.

However, relatively speaking, a language learner can be accepted into the _World of Warcraft_ virtual community much more easily than in real-life communities. In _World
of Warcraft, there are no differences; every player has his or her choice in the avatar that is given to him or her, which lets players and language learners begin from the same starting line. U.S. World of Warcraft servers have not only English-speaking players, but also players from Oceanic and Latin America; therefore, the game already contains a good mixture of languages and cultures.

3.3.2 Settings

World of Warcraft

World of Warcraft (WoW) is part of the MMO (Massively Multiplayer Online) game genre, which means that players quest, journey, and cooperate with one another to survive in the game. Players need to know about the boss techniques to clear the dungeons, which are normally run with at least five people. They play the market to buy and sell items that they craft or loot. They also can fish and farm in order to cook. As mentioned, players not only play the game but also can live another life in the game. In addition, players can form similar interest groups called guilds, and these guilds’ purposes can vary. Some guilds are hardcore raiding guilds, some are PVP (Player vs Player) guilds, and some like to role-play or socialize. Players from different regions with different purposes come and form the World of Warcraft, bringing their personal choices of play. The game itself becomes a social world where everyone lives by his or her own standards.
Over the past years, *World of Warcraft* has subscribed over 12 million active players from all over the world. The game is also available not only in English but also in Spanish, Korean, German, etc. I have personally experienced Korean and American servers for over seven years and collected conversations, recorded videos, interviewed guild members, and participated on guild websites.

**Chat system in World of Warcraft**

1. **Personal chat**: A chat system where players communicate with each other. The players have to be in the game in a face-to-face situation, and only people around the players can see/hear the conversation.

2. **Whisper chat**: Personal chat between two players. Two players can chat with one another secretly without other players noticing the content of the conversation. The players do not have to be in the game in a face-to-face situation, and people around the players cannot see/hear the conversation.

3. **Group chat**: People who form a group can talk to each other through a group chat, also known as party chat. Regardless of the distance between characters, as long as the party members are intact in a group setting, chatting between group members is always possible.

These chats are considered personal chat systems in *World of Warcraft*. Players communicate with others through the chat systems mentioned above. The following explains the chat channels in the *World of Warcraft* conversations. In *World of Warcraft*,
every zone has four different types of chat channels; general, trade, local defense, and looking for group.

4. General channel: The purpose of the general chat is to discuss general topics surrounding *World of Warcraft*, ask for other players’ help, or talk freely about anything the player desires. However, the channel is mostly used to humor other players in the current stage of the game.

5. Trade channel: The trade channel is utilized to trade items or skill sets with other players.

6. Local defense: This channel is used when the opposing faction attacks the local area. It is normally used to alert players in the local area about an assault or provide assistance with the defense.

7. Looking for group: Often known as LFG, through this channel players find other players to join their party or raid group to run dungeons or raids.

**Guild**

Guild is an in-game association of multiple players. Each guild serves a different purpose of play. For example, there are progression guilds. These guilds focus on clearing raids and progressing through the PVE content. PVP guilds focus on the PVP content, forming arena teams or battleground teams together. Progression and PVP guilds have benefits to players, because both PVP and PVE content needs collaboration to perform effectively. Therefore, continuing to play with familiar guild members means building camaraderie between other guild members and constructing a collaborative
environment. However there are also guilds such as leveling guilds or socializing guilds. Leveling guilds consist of players who focus on the leveling aspect of the game. In this type of guild, players help other players with difficult quests or level together on a promised time of game play. Social guilds are a good mixture of all other types of guild, but the main focus is on the socializing aspect. Social guilds can be formed by real-world friends or by players who became friends in the *WoW* community.

All in all, guilds are a great asset through which a player can come to know more people or find players who share a similar interest in game play. Each guild itself forms a community of practice that helps players to learn and enjoy various parts of the game.

*Five Man Dungeons*

Five man dungeons are called “instance” in *WoW*. Five players get together and try to defeat several bosses that cannot be finished alone. The process requires knowledge of the navigation of each dungeon structure and collaborative work with other players. Dungeon bosses drop rare items that will enable players to participate in raids later on in the game.

*Raid*

A raid boss is an upgraded version of dungeon bosses. Normally, ten to twenty-five players form a raid to clear raid bosses. The raid boss drops a strong item that will aid the players in clearing stronger bosses. Normally, every raid member gets an equal
opportunity to receive the item through an in-game rule system. Because the boss fights require specific collaborations, specific teams are created to run raids together. However due to the difficulty level of raids, some players are abandoned or ignored if they don’t meet the standards of game play.

**Scenario**

Scenarios are a new feature in the current expansion, *Mist of Pandaria (MoP)*. The procedure of scenarios is very similar to five man dungeons but requires only three players to complete it. It is less difficult than raids or dungeons and can be quickly done in a short period of time. However, the biggest difference would be playing in a scene that follows the *WoW* story. Scenarios fill in the small gaps between the entire game stories and provide connections to other story lines. The scenarios help the players to engage in the storyline of *WoW* and give opportunities to understand the history of the story.

**Arenas and Battlegrounds**

Players who enjoy the content of the game such as Raids, Dungeons, and Scenarios are players who enjoy the PVE (Players vs Environment) content. However, *WoW* additionally has PVP content too. In PVP content, players test their skills and abilities through participating in arenas or battlegrounds. Arenas consist of 2-on-2, 3-on-3, or 5-on-5 game structures. Battlegrounds are played in larger groups: 10-on-10, 15-on-15,
or 40-on-40. However, PVE and PVP items are different; therefore, a rare item obtained from PVE content wouldn’t be as effective in PVP contents. Every time a player clears an arena or battleground, he or she receives points that are used as currency to buy PVP items. Since collaboration is key to completing PVP contents, players form specific parties that are dedicated to participating in arenas and battlegrounds.

**Leveling and Questing**

In order to enjoy the full content of *WoW*, a player needs to maximize his or her character’s level. Every expansion pack has a different level cap. In the original *WoW* it was 60, then in *Burning Crusade* it was 70, *Wrath of Lich King* was 80, *Cataclysm* was 85, and currently in *Mist of Pandaria* it is 90. The experience of leveling provides players with the opportunity to grasp the story of *WoW* and understand their character’s features. It is possible to play alone through the leveling experience, but in order to enjoy the full content of leveling, grouping with other players is required.

**Cooking**

Cooking is a sub-profession players can learn to benefit their game play, but learning this profession is not required. Cooked items can be consumed or traded with other players. The cooked items provide players with small but effective buffs that make the character stronger for a short period of time. Cooking items can be acquired through items dropped by animals, fishing, or farming.
Annual Events

In World of Warcraft, there are annual events. These events follow many holidays in real-life situations. For example, during Easter, players can collect Easter eggs and use them as currency to buy event-related items. These annual event items can be only obtained during the event time, which is normally a week long. Players can receive achievements, do event-specialized quest lines, or earn rare pets for personal collection. Normally, items achieved during the event might not aid the progression of PVE or PVP content, but the items provide an identity that lets a player be projected as a rare achiever of difficult tasks.

Achievements

Achievements are an accomplishment system that Blizzard has developed for in-game use. There are discovery, quest, and event types of achievements; defeating raids or dungeon bosses in a difficult way also gives players achievements.

Figure 1. An achievement for reaching level 80
In PVP, players value the “Gladiator” achievement because only 0.5% of the top-ranked players can receive this achievement. Therefore, certain achievements like “Gladiator” will be recognized by other players. Players tend to show bragging rights about their achievements on other community pages.

**Pet Battle**

Before the recent expansion, *Mist of Pandaria*, pets were a non-battle companion. This means that it’s possible to display the pets to others, but they have no effect during the battle. However in *MoP*, a pet battle system has been introduced and players can duel with other players’ pets.
**Auction**

Players can trade items with other players through the auction system. The auction is restricted to the server and faction. In other words, Horde players cannot access the Alliance auction house or a different server’s auction house. Due to the restrictions, the auction market’s item value is different among different servers and factions. Servers that have a large population of players tend to have cheaper material prices, because many players will often open an auction ticket. Some players will take the market value into consideration when choosing a server to play.

**Transmogrification**

Transmogrification lets players keep item stats and abilities but changes the appearance of the item. The concept was introduced during the *Cataclysm* expansion pack. Every player has his or her own unique style of decorating his or her avatar. Since the items are not solely from the current expansion content, many players form groups to explore the old content of *WoW*. Additionally, players also share screenshots on the community websites with other players along with explanation of the source of the items.

**Professions**

Each class can choose two professions per character. Professions are distinguished by two categories: Gathering and Crafting. Gathering professions are mining, skinning and herbalism. These professions gather materials that can be used to
craft an item by crafting professions or sold to other players who need them. Crafting professions consist of alchemy, blacksmithing, enchanting, engineering, inscription, jewelcrafting, and leatherworking. Each profession works as a supplemental item that supports players. Crafted items can be bought and sold between players.

*Voice Talk*

The game of *World of Warcraft* is a dynamic construct and needs instant communications back and forth. In raid or PVP situations, continuous interaction is most important. Because chatting is not enough of a communication tool in *WoW*, players use voice-talk systems. The benefit of using voice talk is that it lets players communicate instantly with each other. Another benefit is that it brings players closer to each other because they get to listen to the voices of other players.

*Class*

In *WoW*, eleven classes exist to play: Death Knight, Mage, Monk, Hunter, Paladin, Priest, Rogue, Shaman, Druid, Warlock, and Warrior. Players can choose one class to play; however, they cannot change classes once they have been chosen. Each class has a unique ability; for example, hunters can tame pets to assist in battle situations, rogues can use stealth to hide from enemies, and druids can shape-shift into different forms such as a bear, cat, or hawk. Each class contributes differently to game play.
There are three different roles provided in *WoW*. The first role is called a tank: Warriors, Death Knights, Druids, Paladins, and Monks can serve this role. Another role is called DPS (Damage per Second), which all classes are eligible to play. DPS are required to perform as much damage as possible to the enemies while the tank consumes the damage. Last, there are healers: Druids, Monks, Paladins, Priests, and Shamans can perform this role. Healers are required to keep the tank and DPS alive during engagements with bosses.

Figure 2. *Races and capable classes in World of Warcraft*

<table>
<thead>
<tr>
<th>Class</th>
<th>Alliance</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Draenei</td>
<td>Dwarf</td>
</tr>
<tr>
<td>Druid</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Hunter</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mage</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Monk</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Paladin</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Priest</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rogue</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Shaman</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Warlock</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Warrior</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Horde</td>
<td>Blood Elf</td>
<td>Goblin</td>
</tr>
<tr>
<td>Druid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunter</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
There are two factions to choose in *World of Warcraft* (WoW): Alliance and Horde. Each faction has seven different races to play. As shown in the table, each race can only play pre-chosen classes. Additionally, each race has its own special ability, as shown in the table below. Therefore, people tend to choose a race depending on class, mechanics of game play, and an appearance that satisfies the player’s needs.

**Figure 3. Race specified abilities**

<table>
<thead>
<tr>
<th>Race</th>
<th>Racial Abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwarf</td>
<td>[Stoneform], [Crack Shot], [Mace Specialization], [Frost Resistance], [Explorer]</td>
</tr>
<tr>
<td>Gnome</td>
<td>[Escape Artist], [Expansive Mind], [Arcane Resistance], [Engineering Specialist], [Shortblade Specialization]</td>
</tr>
<tr>
<td>Human</td>
<td>[Every Man for Himself], [Diplomacy], [The Human Spirit], [Mace Specialization], [Sword Specialization]</td>
</tr>
<tr>
<td>Night Elf</td>
<td>[Shadowmeld], [Elusiveness], [Quickness], [Wisp Spirit], [Nature Resistance]</td>
</tr>
</tbody>
</table>
Players of *WoW* don’t only enjoy the in-game content. Players use content outside of *WoW* in many ways. For example, players refer to multiple websites to get more understanding of how to efficiently play their character. Also, players who enjoy the storyline build fanfiction on websites. Blizzard also publishes novels and graphic novels to expand the storyline of the game.

**Websites**

Players refer to websites for many reasons. There are various types of *WoW* websites. First, there are websites that provide information about the class mechanics: this is explained as how to maximize DPS, or how to take less damage as a tank. These
websites also explain what items to wear and which stats each class should emphasize. Another type of website has articles for users. Users can read articles from the website to gain different knowledge that surrounds World of Warcraft.

**Fanfiction**

Fan fiction can be considered as “fan art” or an expression of fans’ dedication to the game they enjoy. There are different types of fanfiction: Comics, Novels, and Drawings. Players who have great passion toward the game tend to make these types of fanfictions. One of the great benefits of fanfiction is that it’s made from a fan’s point of view. Sometimes the bigger picture drawn by the game developers overlooks the minor details that some players could value.

**Novels and Graphic Novels**

Blizzard is known to publish novels and graphic novels about World of Warcraft. The storyline deepens the understanding of the world of World of Warcraft. One of the differences between novels and graphic novels and fanfiction is that the writers are paid as novelists, so the language written in the materials tends to be clearer and better-constructed compared to fanfiction. Also, since it has been developed by the game company, it follows the intended storyline, which can help players to embrace the storyline further.
3.4 Justification

The justification in this research is the six theoretical frameworks (Krashen’s Acquisition-Learning Hypothesis, Task-Based Language Teaching, Socio-Cultural Theory, Language Socialization, The Lexical Approach, and Noticing) discussed in chapter 2’s. Since I have already described this in chapter 2 and chapter 3.1, no longer description will be discussed.

3.5 Research Questions

The research questions will be three-fold, discussing the language development, the participant’s interest in language learning, and how the developmental stages occur.

1. The language development aspect: in a language form and function perspective, what is the effect of World of Warcraft?
2. The participant did not initially show any interest in English-language learning. However, if he has shown interest in language learning, what is the reason?
3. As time goes by, do developmental stages occur?

3.6 Subject

3.6.1 Ina

Ina is a Math major at a university in South Korea. After his mandatory military service, he decided to come to the U.S. and enjoy his time before going back to school. During that period of time, I was fortunate to recruit Ina to participate in my research.
Ina has played massively multiplayer online (MMO) games before playing *World of Warcraft*. He has played a Korean-based MMO game, *LOD (Legend of Darkness)*. However, prior to playing *World of Warcraft* his knowledge of the game was very minimal; this is because *LOD* was a very old MMO game but did share some basic structures with *World of Warcraft* but was drastically a different game. *World of Warcraft* is more complex and requires heavily coordinated teamwork compared to the *Legend of Darkness*. Thus, Ina’s knowledge of *World of Warcraft* was limited to basic skills: developing his character, how to navigate through the game, and how to do quests to level up. Other than that knowledge, Ina had to learn how to play the game and find references over the Internet to understand the game play.

### 3.6.2 Participant’s English language level

The participant was a 21-year-old Korean male who didn’t have experience in any other English-speaking countries prior to coming to the U.S. His English education proficiency was level 2, according to the Penn State IECP (Intensive English Communication Program). IECP has four levels, four being highest and one being the lowest. Level 2 would be considered as students who are literate to English language, but are considered as beginners.

The researcher played with the participant for a period of time of over a year and a half. Ina’s motivation toward learning English was also very low. He did not care about going to class or learning English. However, he found that playing *World of Warcraft* in
English was interesting. He wanted to know more about playing the game with people of different nationalities.

3.7 Research Procedure

In this research, the researcher is a participant researcher. Because the researcher has participated with the subject in the game, internal validity is high in the research. Since the researcher spent time in the game with the participant, and did not observe the participant outside of the game, the research procedure has internal validity.

The researcher played the game with the participant. At the beginning stage of game play, neither of us was familiar with *World of Warcraft*. Both of us had to learn how to play the game, how to develop a character, and how to understand what is valued in *World of Warcraft*. In order to keep the natural setting of the game, we played as a coordinated team; thus I did not help unless the participant asked for specific assistance. Additionally, there was no set time for the research. Whenever the participant wanted to play, that was the playing time. This indicates that every game time will vary, and also not every day is a *World of Warcraft* playing day. This approach was used to keep the research as natural as possible. Occasionally, the participant and the researcher discussed about the game mechanics, but this took place to build more knowledge of game play. After a 6- to 8-month period of time, the participant become more knowledgeable of *World of Warcraft* and his own playtime grew larger. At this period of time, the tracking was done through mostly participant’s chat files and interviews. As the participant left the
U.S., he managed to play *World of Warcraft* for couple of months in Korea but eventually gave up playing due to schoolwork and technical issues.

The researcher collected the subject’s data for over a year and a half but did everything possible to keep the participant in a natural learning (gaming) environment. The researcher’s database is field notes, video recordings, chat files, and interviews. However, with the extensive amount of data, only a selected portion has been presented in this dissertation. In this sense, the research’s internal reliability is weak, because only a small portion of the data has been utilized. Therefore, the researcher's interpretations and conclusions can be only accepted to a large extent.

### 3.8 Analysis of Data

The participant's data was analyzed with discourse analysis and conversation analysis. Discourse analysis focused on the meaning that the participant carried in his conversation. Technically speaking, discourse analysis emphasizes on the meaning of multiple sentences combined together, thus participant’s utterances cannot be seen as discourse. However, the participant used one-word and two-word utterances in order to express his intentions due to lack of his English proficiency. In this sense, discourse analysis was used to understand the participant’s language relations to contextual background features.

Conversation analysis was used to examine the conversational structure. In my research, the participant’s utterances were analyzed into routines, prefabrication, chunks,
and creativity usage. In order to analyze the participant’s language structure and
development, conversation analysis determined the components of his sentences.
CHAPTER 4. DATA ANALYSIS AND RESULTS

Chapter 4 is divided into five stages. Each stage will be characterized according to the participant’s ways of using L2 (chunks and routines).

4.1 The first stage: a variety of routines

The participant used high, middle, and low or zero deleted routines in the first stage. Findings show that there was a routine order from high-deleted through middle-deleted to low or zero deleted routines. However, there were exceptions. For example, there appeared zero deleted routine, ‘I add you’ (see, Table 3) in high-deleted routine period. It is assumed that the participant could notice ‘I add you’ easily. Another example is line 6 of Conversation 4 (Table 7). ‘I don’t need it’ appeared in middle-deleted routine period because the participant had already known this expression before he participated in the World of Warcraft game.

Also there was a fuzzy account of what had happened. In lines 13, 14, 15, and 17 of Conversation 5 (Table 9), the participant produced ‘Maybe we die once more.’ It was categorized as low or zero-deleted routine period but it had a structure, ‘routine + chunk,’ which implies the fourth stage. But it was believed that the participant could not notice subcomponents of the expression.
4.1.1 high-deleted routine period

In this period, the participant used one-word and two-word utterances. These utterances are called ‘high-deleted routine’ in this study.

The following conversation takes place in the early part of the research. During this period of time, the participant and the researcher were both novice players of *World of Warcraft (WoW)*. Thus, the majority of the conversations were conducted in Korean, and both individuals were trying to find a more efficient way to play the game. As the participant had difficulty speaking English in *WoW*, Korean was the most effective method to communicate with the researcher. However, using Korean did not have a negative effect. Speaking Korean in the early part of the research provided a great chance to understand the game knowledge and encouraged the participant to become an active participant of the *WoW* community without a language barrier.

Table 1 examines the participant’s early interest in participating in the *WoW* community. In this conversation, the participant began to speak English. Specifically, he only used game-related terms to participate in the conversation.

In Table 1, the participant and the researcher were questing together, and the quest object was in the tower. However, in order to retrieve the quest object, they needed to bypass the void monster. The void monster’s level was red, which means it was too difficult to kill; the conversation was about deciding whether to kill the void or find an easier quest to do.

Table 1. *Conversation 1*
In Table 1, the participant’s language used and conversion strategy look similar to children’s mother language acquisition process. In the beginning, the participant did not use any English words to carry out the interaction, which was similar to children babbling around one year of age. Then the participant uses game-related words, which leads to further conversation. This is also similar to children using the first-word utterance. First,

[^45]: Researcher
[^46]: Participant
in lines 4 and 6, the participant uses “quest” and “red color” in order to indicate that the quest was too difficult and to suggest avoiding the quest. He used two single words to successfully express his intentions. This is very similar to children using a word as a holophrase\footnote{Using one-word as a sentence. L1 children’s one-word utterances are considered as a holophrase (Corder, 1973).}. Moreover, the participant uses the one-word utterance in order to participate in the \textit{WoW} community.

The participant used the words \textit{quest} and \textit{red color} to participate in the conversation, but these words are game terminologies in English; thus it is difficult to claim that the participant has learned English. The participant has acquired \textit{WoW} terminology in English. In a language-socialization perspective, the participant was beginning to acquire the \textit{WoW} community’s values and norms through participation in \textit{WoW}. Specifically, through the medium of English the participant was learning the words that were considered as values and norms of \textit{WoW}. Since the participant’s interest was in playing the game, he did not notice learning or using the target language. This is a similar process to children using their language subconsciously in order to become members of their own communities.

The participant shows a process of language learning similar to that of children in his one-word or two-word utterances. In line 14, the word “bear” indicates \textit{So we should hunt bears?} The participant’s language ability was not enough to structure a full-length sentence at this point in time. However, he was able to point out to the researcher the key word that led to the researcher understanding the participant’s intention. This is similar to the process that occurs when children use one- or two-word utterances so the mother or
caregiver can figure out the implied meaning from the context.

In Table 1, the participant used two different types of fillers. On lines 2 and 11, the participant’s filler substitutes as an indicator for his turn of speech. Generally speaking, fillers are used to encourage another interlocutor’s speech or are used as a signal to maintain one’s speech. However, in lines 2 and 11, the filler’s function was different and might be applied to only game settings. This is because in line 2, the participant uses a filler, but in line 3 the researcher continued with his speech. On line 12, the researcher also continued to speak regardless of the participant’s speech in line 11. With only Table 1, it was too early to determine how the participant acquired this type of filler function. For example, the line 13 filler could be noted as a general filler function used in everyday speech, because it implies that the participant still has the control over the conversation, and on line 14 the participant continues to speak.

All in all, this conversation has findings as follows:

1. There are similarities between the participant’s language development and children’s mother language development. Before this conversation, the participant has shown a series of “silent periods,” similar to children's silent period after they are born.

2. The procedures of the silent period of the participant and children show similarities. During the silent period, the participant learns game related terminologies and children learn their first-word utterances.

3. The participant begins to use one-word or two-word phrases out of the blue. Children use first-word utterances unexpectedly around the one-year age period.
4. For the participant and children, one-word or two-word phrases were learned through the environment. It is similar that the participant learns game terms through the *WoW* setting and children learn words through their environment.

5. The participant and children use nouns as an utterance. For example, in line 14, the participant says “bear?” to indicate “So we should hunt bears?” Children use single words as holophrases.

6. The participant used fillers that were not utilized in average conversations. It is assumed that these types of fillers are used only in game settings.

Table 2. *Findings from summary of conversation 1*

<table>
<thead>
<tr>
<th>Types of Words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>4) <em>this quest</em>→two-word utterance</td>
<td>Game terminology</td>
</tr>
<tr>
<td>6) <em>red color</em>→one-word utterance</td>
<td>Game terminology</td>
</tr>
<tr>
<td>14) <em>bear</em>→one-word utterance</td>
<td>Game related word (terminology)</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>2) <em>hmm</em>→filler</td>
<td>Completion of his flow (turn)</td>
</tr>
<tr>
<td>11) <em>hm</em>→filler</td>
<td>Completion of his flow (turn)</td>
</tr>
<tr>
<td>12) <em>so</em>→filler</td>
<td>Sustain/keep his flow (turn)</td>
</tr>
</tbody>
</table>

The following conversation was between the participant, Detre, and a random player, Ridarcyna. Whispers in *WoW* do not show one’s own character name and are displayed with “To…”. In this conversation, the researcher did not participate. The researcher was with the participant, but since it was a whisper conversation, it was a
personal conversation between the participant and Ridarcyna. The research was at its beginning period, and the participant was still trying to get familiar with *World of Warcraft*.

Ridarcyna and the participant added each other as friends, and Ridarcyna continued to interact with the participant. The conversation was about Ridarcyna meeting a female (character’s appearance) in the game, and then the female player said she loves Ridarcyna. But it turned out that the female player was a male.

Table 3. *Conversation 2*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/17 07:30:50.868</td>
<td>Ridarcyna: (whispers) <em>im ganno add you</em></td>
</tr>
<tr>
<td>2</td>
<td>8/17 07:33:47.000</td>
<td>Detre: (To Ridarcyna) <em>ok..i add you too lol</em></td>
</tr>
<tr>
<td>3</td>
<td>8/17 07:34:23.371</td>
<td>Ridarcyna: (whispers) <em>so wacha up to</em></td>
</tr>
<tr>
<td>4</td>
<td>8/17 07:35:10.887</td>
<td>Ridarcyna: (whispers) <em>it was soo wired the was a blood elf girl and she was like ...acting weird right</em></td>
</tr>
<tr>
<td>5</td>
<td>8/17 07:35:41.885</td>
<td>Ridarcyna: (whispers) <em>the she said i have to go and i said love ya see ya later then she said she was a .....dude</em></td>
</tr>
</tbody>
</table>

In this conversation, the participant responded to Ridarcyna once. The importance of this conversation is that the participant was alone during the interaction. This can be translated into the beginning of the participant’s socialization activity and language development.

In lines 1 and 2, the participant begins with *promising* with Ridarcyna. The promise was adding each other as friends. In *World of Warcraft*, the routine *I add you* was used as a routine. This was the first routine that the participant used. How the participant acquired this routine was unknown; however, due to the fact that people add
each other as friends in the game frequently, he must have observed the conversation many times. As the participant saw the routine in line 1, he responded back in line 2 with the routine, and it was possible to observe that the participant was beginning to get accustomed to the *World of Warcraft* world. Prior to using the *I add you* routine, the participant used *OK* as a routine. This routine was not an in-game related routine, but it was a routine that he began to use in the game. Through this, it is possible to understand that the participant felt comfortable enough to use couple of routines he already knew. The next part, *lol* (Laughing out Loud) was a chatting emoticon, and was used for the first time by the participant. This emoticon indicates that he was happy to add Ridarcyna as a friend.

Through this conversation, it is not possible to assume how much language development had occurred up to this period. The participant did not respond to Ridarcyna’s lines 3, 4 and 5. It is possible to assume that the participant’s language proficiency was low at this time.

In sum, the participant used three routines in Table 3. The purpose of these routines was to enable the transaction when a player wanted to add someone as a friend. The participant noticed greeting words easily while struggling with game-related words.

Another notable feature is the participant’s silence during the interaction in lines 3, 4, and 5. It would be normal to use filler or respond to say that he did not understand, but the participant decided to stay silent. The fillers the participant has used in conversation 1 were mostly game-related, but conversation 2 was not game related, and the participant struggled to show any fillers. It is possible to assume that the participant was showing frustration when the conversation did not relate to in-game content. The following table
summarizes the analysis so far.

Table 4. *Findings in conversation 2*

<table>
<thead>
<tr>
<th>Types of expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>Real-life routine</td>
</tr>
<tr>
<td>2) <em>ok</em> → General routine</td>
<td>Game-related routine</td>
</tr>
<tr>
<td>2) <em>I add you.</em> → Adding friend routine</td>
<td>Chatting routine</td>
</tr>
<tr>
<td>2) <em>lot</em> → Greeting routine</td>
<td>Limitation with average</td>
</tr>
<tr>
<td>No fillers</td>
<td>conversation</td>
</tr>
</tbody>
</table>

### 4.1.2 middle-deleted routine period

In this period, the participant was expanding his production from high-deleted routines to middle-deleted routines, which refer to collocations. Though he used a full routine ‘*I add you*’ in high-deleted routine period (see, line 2 of conversation 2), it appeared only once so it was ignored.

The following conversation was a continuum from conversation 2. The interlocutors in this conversation were the same: Ridarcyna and Detre. The difference was that the conversation was no longer a whisper but in person (character to character) conversation. The researcher was with the participant but did not feel the need to participate in the conversation. In Table 5, Detre did not show any response to Ridarcyna’s story; therefore, Ridarcyna asks Detre if he heard his story.

Table 5. *Conversation 3*
In lines 1 and 2, Ridarcyna said *hi to Detre because in conversation 2 they were whispering to each other, and in conversation 3, the characters of the two players met in the game. In line 3, the participant used *hiya, an Internet-chat friendly greeting to Ridarcyna.

In line 4, Ridarcyna said *What’s up? in order to begin a conversation. In line 5, the participant used a filler to maintain his speech status. In conversation 1, line 2, the filler *hmm was used to *complete his flow, but in this situation the participant used it to *sustain his flow. When he could not stand the participant spending too much time for his turn without saying a word, Ridarcyna determined it was his turn to speak and said *lol as filler for *completion of his turn. In line 7, the participant decided to speak. However it was interesting to observe the participant’s language function development. In line 2 of

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48 * is used to indicate the correction of typographical error in linguistics. However in a chatting system, * refers to the typographical error in the former sentence. Later, the participant uses * form to indicate his corrections of typographical error.

49 *Hiya is short form of *How are you? that is used generally in chatting settings.

50 *What’s up?
conversation 2, the participant used two-word utterances such as *this quest*. In
conversation 3, this developed into a three-word utterance: *checking my quest*. From this
speech, we can assume that the participant already knew the words *check* or *my*. The
surprising part was that the participant used the words in a grammatically correct order.

There are two features I would like to emphasize. First, *this quest* form became
*my quest* in form. The participant used the open-class forms *this* and *my* with *quest*,
much like a children’s pivot grammar. Another part was the usage of collocation. In
*World of Warcraft*, the words *quest* and *check* work as a collocation.

In a pragmatic perspective, the participant greets other people correctly in lines 2
and 3. However, beyond that point, the participant’s language proficiency was too low to
answer other questions. In line 5, the participant has shown hesitation to speak and used
filler to buy more time; also in line 8, the participant fails to answer the question. These
eamples indicate that the participant’s language proficiency was low.

To summarize, the participant has shown some language development in
conversation 3. First, the relations of language form and function have developed. The
greeting language function *hiya* was used in line 3 in order to answer line 2. In line 5, the
language form *hmm* that has the completion of his flow function was used to sustain his
flow. Second was grammar. The participant has shown a similar language system of
children’s pivot grammar. *My quest* in line 7 and *this quest* in line 2 of conversation 1 are
the evidence. The use of collocation has also appeared. In line 7, *checking my quest*
seems to indicate that *check* and *quest* go together like those of collocation. Therefore it

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51 Children’s two-word utterances are known as pivot grammar. In this perspective, sentence = pivot word + open word
seems that the key word *quest* will stand, first, with the determiner (e.g. *my*); second, with the collocated verb (e.g. *check*); and third, with extra phrases; and that consequently *quest* will turn out a full sentence in the future. This process can be called language development. Further data will observe this type of movement (game term $\rightarrow$ general language system) of the participant. The following are the findings of conversation 3.

Table 6. *Findings of conversation 3*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>7) <em>my quest</em> $\rightarrow$ pivot grammar</td>
<td>Language development</td>
</tr>
<tr>
<td>7) <em>checking my quest</em> $\rightarrow$ collocation</td>
<td>Occurred from game terminology <em>quest</em></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>3) <em>hiya</em> $\rightarrow$ Answer to hi</td>
<td>Greeting function</td>
</tr>
<tr>
<td>5) <em>hmn</em> $\rightarrow$ Filler of <em>sustain his flow</em> function</td>
<td></td>
</tr>
</tbody>
</table>

The following conversation consists of participant Detre and a random player, Milkai. Milkai was known as a *beggar*\(^\text{52}\). The social norm in *World of Warcraft* (also in other MMO games) is to ignore beggars. However, the participant did not know that the random player was a *beggar* and answers the *beggar’s* entire question, which led to annoying situation. The researcher had not logged into the game yet, and this conversation occurred while the participant was waiting for the researcher.

In the following conversation, Milkai demands that Detre (participant) buy a *Brown Linen Shirt*. However this item was a cheap item, and Detre did not need it.

\(^\text{52}\) In *World of Warcraft* or other massively multiplayer online games, beggars constantly ask for money or items.
Through this conversation, it is possible to assume that the participant gradually was
distinguishing the items that are needed and not.

Table 7. Conversation 4

<table>
<thead>
<tr>
<th>Time</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/22 14:00:17.508</td>
<td>Milkai: ill sell ya a Brown Linen Shirt</td>
</tr>
<tr>
<td>8/22 14:00:25.005</td>
<td>Milkai: 1s</td>
</tr>
<tr>
<td>8/22 14:00:26.816</td>
<td>Detre: hm</td>
</tr>
<tr>
<td>8/22 14:00:28.934</td>
<td>Detre: sorry.</td>
</tr>
<tr>
<td>8/22 14:00:32.503</td>
<td>Milkai: 50c</td>
</tr>
<tr>
<td>8/22 14:00:34.968</td>
<td>Detre: i dont need it</td>
</tr>
<tr>
<td>8/22 14:00:37.132</td>
<td>Detre: ... 54</td>
</tr>
<tr>
<td>8/22 14:00:38.191</td>
<td>Milkai: ok</td>
</tr>
</tbody>
</table>

This conversation was different from prior conversations. Previously, the participant’s language development was noticed, but in this conversation he expressed his feelings toward a different player. In lines 1 and 2, Milkai presents the item to Detre and suggests that he buy it for 1 silver. In line 3, Detre used the filler *hm* to think a little and then expressed *sorry* in order to imply he did not want the item. However, in line 6 Milkai continued to push the purchase toward Detre by lowering the price to 50 copper (1 silver=100 copper). In line 6, Detre firmly rejected the offer and continued to express his irritation toward Milkai. Milkai decided to pull back from Detre in line 8.

In line 4, the participant fails to appropriately express rejection toward Milkai. If

---

53 In *World of Warcraft*, the currency is Gold, Silver, and Copper. 1s is 1 silver and 50c means 50 copper.

54 The three dots indicate the feeling of dismay. The participant was expressing his feeling in a Korean style. In the U.S., normally three dots are not used as showing dismay, but in Korea it is used to show how “there is no more to say about the situation.”
the participant used the language form of line 6 in line 4, then the situation could have been over quickly. When a new offer was made in line 5, the participant firmly expressed his feelings in line 6. However, the participant continued to express his feelings through three dots (...). The three dots are known as a Korea-style emoticon.

I would like to focus on the participant's Korean-style emoticon expression. Why has he used a Korean emoticon to express his feelings? For this answer, I would like to reflect on my own experience:

*When I first came to U.S. as an immigrant, I was four. I was in nursery school, and one day I was playing with my friends in the playground slide. I was on top of the slide when accidentally an American girl pushed me, and I almost fell off the slide. I was very frustrated and angry, and I shouted “Mil-ji-ma!!” (Don’t push!!). It was in Korean, but the girl immediately replied, “I’m sorry.”*

Then what made a four-year-old child shout in Korean? Some could say it was because he was not comfortable with English. But then, he could have always just made a roaring noise; thus this explanation is not valid. Some could also argue that it was because the child was only four years old and did not have the independence to determine the situation to use English or Korean. However, it is possible that in other contexts, the child struggles to choose the language to speak; therefore, this argument is also not valid.

The suitable answer for this situation was that the child spoke in Korean because he was shocked. It was normal to see an unconscious expression from the child. Especially when expressing one’s feelings, catharsis needs to occur, and using a strong expression can be most effective. As in this case in *WoW*, it is understandable that the participant expressed his feelings of dismay with the Korean emoticon. Even if English
was comfortable, when expressing with catharsis, this should take place in the language that could immediately reflect one’s feeling.

The three dots in line 7 are not Korean. They are a symbol in the Korean style. Thus, this expression would not transfer as it was supposed to other players in *World of Warcraft*. It could be a trigger for the curiosity of other players (non-Korean players) and eventually make them copy the symbol.

It is important to understand the meaning that depends on the description of conversation 4. The participant was frustrated because he confronted a real and difficult situation in the game. It was a real situation, because the virtual world could be considered as a real world. Conversation 4 was a real situation, not an artificial conversation. Considering the fact that foreign-language schools value authenticity in classroom settings, the authenticity given in *World of Warcraft’s* virtual world should have educational value.

In line 3 of conversation 4, the filler was functionally used as the participant’s turn to speak, because the participant continues to speak in line 4. In line 6, the participant used a perfect grammatical language form. However this does not necessarily transfer to his language development, because the second condition form (a subject + a verb + a subject compliment) and third condition form (a subject + a verb + an object) are the easiest sentences a second-language learner could construct. Or the participant could already know about the sentence *I don’t need it*. It was not possible to state that development occurred after a single expression.

In summary, conversation 4 presents the potential of being a real-world communication. The participant has begun to use the fillers naturally. However, the
participant’s English proficiency did not develop enough to enable him to reject firmly.

Additionally, the participant used emoticons to express his feelings.

Table 8. Findings in conversation 4

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>5. <em>I don’t need it.</em> → correct grammar</td>
<td>Language development judgment (discontinued).</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>3. <em>hm</em> → filler</td>
<td>Sustains his flow.</td>
</tr>
<tr>
<td>7. <em>...</em> → Korean style emotion expression symbol</td>
<td><em>World of Warcraft</em> has high authenticity.</td>
</tr>
</tbody>
</table>

4.1.3 low or zero-deleted routine period

In Table 7, a full routine ‘I don’t need it’ appeared. But his vocabulary used in the expression is not related to the game vocabulary. It is assumed that the participant had already known the expression out of the game. So it is not counted as part of his language development in the game.

In the next conversation, the participant shows development in language. In conversation 4, the participant has spoken a grammatically perfect sentence and also expressed his feelings. In this conversation, the participant (Hienma) and the researcher (Lovedo) continued to talk about the void monster mentioned in conversation 1. Both of
them need to go inside the tower in order to finish the quest, but they keep dying at the void monster. The participant’s and researcher’s game knowledge level was low, and the participant’s language proficiency was low too.

Table 9. *Conversation 5*

<table>
<thead>
<tr>
<th>Time</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/22 18:56:25</td>
<td>Lovedo: inaya...</td>
</tr>
<tr>
<td>8/22 18:56:29</td>
<td>Hienma: ...</td>
</tr>
<tr>
<td>8/22 18:56:35</td>
<td>Hienma: why..</td>
</tr>
<tr>
<td>8/22 18:56:38</td>
<td>Lovedo: do you think</td>
</tr>
<tr>
<td>8/22 18:56:42</td>
<td>Lovedo: we can</td>
</tr>
<tr>
<td>8/22 18:56:44</td>
<td>Lovedo: actually</td>
</tr>
<tr>
<td>8/22 18:56:51</td>
<td>Lovedo: finish the quest</td>
</tr>
<tr>
<td>8/22 18:56:54</td>
<td>Lovedo: the tower one?</td>
</tr>
<tr>
<td>8/22 18:56:59</td>
<td>Hienma: ..no &lt;-</td>
</tr>
<tr>
<td>8/22 18:57:02</td>
<td>Lovedo: -_-</td>
</tr>
<tr>
<td>8/22 18:57:05</td>
<td>Lovedo: nice (Sarcastic voice)</td>
</tr>
<tr>
<td>8/22 18:57:05</td>
<td>Hienma: .....</td>
</tr>
<tr>
<td>8/22 18:57:13</td>
<td>Hienma: maybe..</td>
</tr>
</tbody>
</table>

---

55 Ina is the participant’s real name
56 The three dots in this situation are filler showing the participant’s curiosity toward the researcher, because he called him by his first name.
57 Line 4, 5, 6, 7 and 8 is one sentence. However in chat settings, there can be time differences typing the sentence and it are possible to see it divided into several parts. This pattern repeats in line 12, 13, 14, 15 and 17, which is also a single sentence.
58 This emoticon means a preposterous feeling, which is used frequently by Koreans.
59 When there is no more to say, multiple dots are used to show the expression. This is also a Korean-style emoticon.
As is known, researcher and participant were novice *World of Warcraft* players at this moment. In the conversation, the researcher wants to do a different (easier) quest, and the participant wants to attempt the same quest again. The situation could be considered an argument.

In line 1, the researcher calls the participant. In lines 2 and 3, the participant replies by asking why. From line 4 to line 8, the researcher suggested abandoning the quest, but on line 9 the participant firmly rejected the suggestion. In lines 10 and 11, the researcher was intimidated, and from line 13 to line 17 (except for line 16) the participant understood the quest was unfeasible but wanted to give it another try. The researcher re-confirms in line 19, and the participant reassures in line 20. The conversation ends with the researcher expressing his grievances in line 21.

In conversation 5, the participant shows another grammatically perfect sentence.

---

60 Line 13, 14, 15 and 17 means in full sentence as: *Maybe we will die once more*

61 The three dots implies the meaning of *don’t you think so?* this is also considered as a Korean style symbol.
I don’t need it (conversation 4, line 6)

Maybe we die once more (conversation 5, line 13 to 17)

In conversation 4, I don’t need it was considered as a grammatically perfect sentence, but it was noted that it cannot be referred to as a language development with a single incident. However, even though the participant has spoken Maybe we die once more, it still cannot be referred to as a language development. The key point of this conversation was the word die, because when as the participant failed numerous quests, the first word he saw was die. Maybe indicates that there was a possibility to die, we was the main agent for die, and once more indicated the frequency of die. Specifically, the participant acquired chunks related to questing. Lines 13 to 17 could be referred to as a gathering of chunks. In this sense, the participant spoke a grammatically perfect sentence through the gathering of chunks rather than from a grammatical knowledge base.

Conversation 5 indicates that the sentences are structured with chunks. As is known, the researcher’s expressions in lines 4 to 8 are also shown as chunks, and the participant noticed the chunks related to the game.

Another feature that the participant presents was register. Register refers to a variety of language defined according to its use in social situations (Crystal, 1991, p. 295). Register refers to an instance when one uses the expression suitably in a social situation. In conversation 5 lines 2, 12, and 18, the participant used Korean style emoticons. These were not in a language form but were used to express the participant's emotions. Since the researcher was also a Korean, the participant registered the emoticon as a Korean style. Emoticons could be considered as a suitable material in order to express one’s emotions. Considering the language proficiency of the participant, it could be normal to
express one’s feelings through many emoticons.

Line 3 why, line 9 no, and line 20 yeah were all considered as one-world utterances. The participant normally used one-word utterances when the interaction content was non-game related, which indicates his low English-language proficiency.

In sum, the participant used multiple chunks in conversation 5. As his knowledge of the game increased, he used more chunks related to the game. This could be considered language development, but it was not the participant’s intention to learn language; rather it could be considered that his language development improved as his interest in the game increased. Another factor was the expression of his emotions. The participant did not have the English-language proficiency to express his emotions; thus he relied on emoticons. The following table sums up the description in conversation 5:

Table 10. Findings in conversation 5

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 13 maybe → chunk</td>
<td>Possibility</td>
</tr>
<tr>
<td>line 14 we → chunk</td>
<td>Main agent</td>
</tr>
<tr>
<td>line 15 die → essential chunk</td>
<td>Happening</td>
</tr>
<tr>
<td>line 17 once more → chunk</td>
<td>Frequency</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 2 … → emoticon</td>
<td>Curious function</td>
</tr>
<tr>
<td>line 12 ….. → emoticon</td>
<td>Avoidance function</td>
</tr>
<tr>
<td>line 18 … → emoticon</td>
<td>Assuring function</td>
</tr>
</tbody>
</table>
4.2 The second stage: G-routines and R-routines

In this stage, the participant showed that he went through a silent period and consequently noticed G-routines in Table 11. Also he produced both R-deleted routine and G-deleted routine in Table 15. Lastly he uttered R-deleted routines in the game in Table 17. So to speak, the participant developed L2 from G-routine to R-routine which is popular in everyday life.

4.2.1 Input period: G-routines

In the following conversation (lines 1 to 3), the interlocutors are Hienma (participant) and a random player, Blamakus. Blamakus whispers to Hienma to join his guild. Since this was a whisper conversation, the researcher did not participate. In this conversation, Hienma already knew about the concept of guilds because he had played MMO games before and understood the benefits he could receive if he decided to join one. In this perspective, the schema of MMO-game knowledge helped the participant to smooth his understanding of this conversation.

The lines 4 to 10 occur after Hienma joined the guild. This conversation was considered as guild chat, and only players who were in the guild could join the conversation. Since the researcher was not in the guild, he could not observe the conversation even though he was (in game) next to the participant. In the guild chat, Blamakus and Hienma interacted about Hienma’s professions (skinning, leatherworking, etc.) and class trainer (rogue, mage, etc.) locations. The conversation indicates that the participant was in the process of socializing.
Table 11. *Conversation 6*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/23 10:18:31</td>
<td>Blamakus: (whispers) Hi</td>
</tr>
<tr>
<td>8/23 10:20:10</td>
<td>Hienma: hi~?^62</td>
</tr>
<tr>
<td>8/23 10:21:02</td>
<td>Blamakus: (whispers) would u like to join my guild</td>
</tr>
<tr>
<td>8/23 10:24:37</td>
<td>[Guild] Blamakus: so what are your professions^64?</td>
</tr>
<tr>
<td>8/23 10:25:36</td>
<td>[Guild] Blamakus: nice i am a skinner and leather worker</td>
</tr>
<tr>
<td>8/23 10:26:01</td>
<td>[Guild] Hienma: don’t you know where is class trainer^65?</td>
</tr>
<tr>
<td>8/23 10:26:41</td>
<td>[Guild] Blamakus: im not sure where the class trainer is here</td>
</tr>
</tbody>
</table>

This conversation presents new game words acquired by the participant since conversation 1. In line 7, the guild gave the participant an opportunity to use the words *skinning and tailoring*. He also used the words *class trainer* in line 9. Since the participant already knew the words, he understood Blamakus’s question in line 6: *what are your professions*? And in line 8: *nice I am a skinner and leather worker*. As the participant's game terminology increased it provided him with an opportunity to receive more input.

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^62 The participant used the gesture ~? in order to present that he is not aware of the other person.

^63 The participant used *lol* in order to show how funny it is to greet each other again when they already greeted each other on lines 1 and 2.

^64 Professions are a set of skills learned by players: Skinning, leatherworking, jewelcrafting, etc.

^65 The class trainer trains the character skills.
In line 9 the participant asked *don't you know where is class trainer?*, and even though his grammar was wrong, the fact that he attempted to speak indicated that his language development was happening. In line 10, Blamakus properly used a subordinate conjunction *where*, and hopefully the participant will notice this expression and correct his error.

In a language-function perspective, the participant shows different functions. In line 2, he used a greeting function as *hi~?* This means that he understood how to use a symbol to greet new people. In line 5, the participant greets Blamakus with *lol* to indicate that continuing to greet each other was funny.

Up to this point, it was possible to observe that the participant used new game-related terminologies and new language structures in a new environment. Additionally, the amount of input has also increased for the participant to understand input when it is related to game knowledge. Previous research has indicated that if input increases, language development increases simultaneously.

New emoticons indicate that the participant has entered a new social environment. Although the emoticons are not language, they have close relations with language development. Malinowski (1923) posited that people utilize phatic communions to increase their own positive image, and as a result more confidence is gained. The following table sums up conversation 6.

Table 12. *Findings in conversation 6*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
</table>


The following conversation was short but had significance. In this conversation, the participant Detre was talking to someone who was not noted in the conversation. The chat log failed to save the other player’s conversation, but it was possible to observe the participant asking questions about a quest. In the conversation, the participant was asking where he could turn in his quest.

Table 13. *Conversation 7*

<table>
<thead>
<tr>
<th>Form</th>
<th>Function</th>
<th>The conversation was short but had significance. In this conversation, the participant Detre was talking to someone who was not noted in the conversation. The chat log failed to save the other player’s conversation, but it was possible to observe the participant asking questions about a quest. In the conversation, the participant was asking where he could turn in his quest.</th>
</tr>
</thead>
<tbody>
<tr>
<td>line 7, <em>skinning, tailoring</em> → Game terminology</td>
<td>line 2, <em>hi~?</em> → in-game greeting (phatic communion)</td>
<td>Entering a new social setting</td>
</tr>
<tr>
<td>line 9, <em>class trainer</em> → Game terminology</td>
<td>line 5, <em>lol</em> → emoticon (phatic communion)</td>
<td>Curious function</td>
</tr>
<tr>
<td>line 9, <em>where + subject + be</em> → language structure</td>
<td></td>
<td>Comprehensible input</td>
</tr>
<tr>
<td>line 3, <em>would you like to join my guild</em> → input</td>
<td></td>
<td>Friendship function</td>
</tr>
<tr>
<td>line 6, <em>what are your professions?</em> → input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>line 8, <em>i am a skinner and leather worker</em> → input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>line 10, <em>where the class trainer is here</em> → input</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: There could have been an error saving all the conversation, the participant’s internet connection could have been disconnected, or the other player could be too far away to notice the conversation.

Note: I have the same quest as you, and I have a question about it.
The development in conversation 7 was the participant’s curiosity toward questing. As his curiosity toward gaming increased, he initiated questions to other players who shared the same interest (in this case, questing). As stated in socio-cultural theory, the language in this case has the function of a symbolic tool that increases the participant’s interest.

In line 1, the participant asked a question using a two-word utterance. With the sentence alone, it was difficult to understand; however, for *WoW* gamers, the sentence makes sense. This is similar to children when they speak one- or two-word utterances. The parents or caretakers understand the children, while others have difficulty understanding the children. It is possible to assume that the participant in this situation felt frustration because, due to his lack of English-language proficiency, he was limited in asking questions about the quest. In line 2, the participant used filler as a communication strategy in order to supply his limited language situation. Actually, the two-word utterance in line 1 could be the result of a communication strategy, because with two words, the participant had implied *I have the same quest as you, and I have a question about it*.

In this conversation, line 3 is worth explaining in detail in terms of grammatical structure. For this examination, it will first be compared with line 9 of conversation 6 and then compared with line 10 of conversation 6. The following are sentences from *Sustain his flow filler*.
conversation 6:

Line 9. Hienma: *don’t you know where is class trainer?*

Line 10. Blamakus: *im not sure where the class trainer is here*

In line 9 of conversation 6, the participant committed a grammatical error. Specifically speaking, when the interrogative adverb *where* changes to the subordinate conjunction *where*, and when the subordinate conjunction *where* leads a clause, the word order is $S + V + ~$, which is the same word order as in a declarative sentence. The participant should have used the word order of line 10. However, surprisingly enough, he used the correct word order with the subordinate conjunction *where* in line 3 of conversation 7. As I had hoped that he would notice Blamakus’ word order, the participant’s correct word order is amazing. Of course, it should be admitted that it might be wrong to say “he noticed correctly” with only one successful example. But the important thing is he produced a correct utterance.

Next is line 3:

Line 3: *do you know where we can completed?*

The word order in this sentence was correct even though the participant committed a minor grammatical error. Using a past tense *completed* in the bare infinitive spot was a grammatical error. The reason for the error could relate back to conversation 5, Table 10. As the participant’s grammatical knowledge was low, in Table 10 he utilized chunks to communicate as a strategy of learning language. The participant observed *the quest completed* sentence many times through *WoW*. The word *completed* could be perceived as a syllable to the participant.

Figure 4. *Quest completed screenshot*
In summary, the participant used the game terminology *quest* as a mediation tool. Additionally, using a two-word utterance such as *your quest* indicates that his language proficiency was low, but it is also evidence he was using a communication strategy. The participant in line 2 used the filler *hmm* to switch from *completion of his flow* to *sustain his flow status*. Also, in line 3, *do you know where we can completed?* could imply that he has noticed the Table 12, line 10 expression. The following are the findings of conversation 7.

Table 14. *Findings in conversation 7*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 1, <em>quest</em> → mediation tool</td>
<td>Socio-cultural theory</td>
</tr>
<tr>
<td>line 1, <em>your quest</em> → two-word utterance</td>
<td>Communication strategy</td>
</tr>
<tr>
<td>line 3, ~<em>where we can completed</em> → where + S</td>
<td>Noticing (success)</td>
</tr>
</tbody>
</table>
4.2.2 Occurrence together period: G-deleted and R-deleted routines

In the following conversation, the participant, Hienma, and researcher, Lovedo, were questing together. In the conversation, the researcher asked a question using game terminology. The participant was curious about the game terminology and asked the researcher about it.

Table 15. Conversation 8

<table>
<thead>
<tr>
<th>Time</th>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/30 02:23:58.442</td>
<td>Lovedo</td>
<td>i wonder what kind of quest this will be?</td>
</tr>
<tr>
<td>8/30 02:25:48.154</td>
<td>Lovedo</td>
<td>finding a ore?</td>
</tr>
<tr>
<td>8/30 02:26:00.978</td>
<td>Lovedo</td>
<td>i think killing bears are lower level quest 69</td>
</tr>
<tr>
<td>8/30 02:26:10.431</td>
<td>Hienma</td>
<td>what ore.</td>
</tr>
<tr>
<td>8/30 02:26:17.669</td>
<td>Lovedo</td>
<td>incendicite ore 70</td>
</tr>
<tr>
<td>8/30 02:26:21.131</td>
<td>Lovedo</td>
<td>ore is like gusul 71</td>
</tr>
<tr>
<td>8/30 02:26:29.064</td>
<td>Hienma</td>
<td>that is 72 …</td>
</tr>
</tbody>
</table>

69 Lower level than finding an ore quest. Line 3 means the finding the ore quest should be favored over the killing bear quest.

70 Additional information about Incendicite ore: http://www.wowhead.com/item=3340/

71 Gusul means bead in Korean, and it has been written as it sounds.
In this conversation, the participant learned new game terminology. In line 2, the researcher said *ore*, and in line 4 the participant asked about *ore*. The participant used the game terminology and generated a two-word utterance: *what ore?* He was gradually using a question structure.

1) Table 9, conversation 5, line 3: *why...*

2) Table 11, conversation 6, line 9: *don’t you know where is class trainer?*

3) Table 13, conversation 7, line 3: *do you know where we can completed?*

4) Table 15, conversation 8, line 4: *what ore?*

In example 1, *why* was used as a reply (*yes?*) to the researcher’s call; thus it cannot be seen as a question. Examples 2 and 3 appear to be more complicated sentences than example 4’s question structure. However, in a chunk perspective, the participant previously had acquired *do you know~* and “where + S + be” chunks. In contrast, a chunk that begins with *what~* has not been acquired by the participant. In conversation 8, it was the first time the participant showed a *what~* question structure. This could be interpreted as the point at which the participant began to ask specific questions about game terminology. Another question structure was observed in the *to be* verb form in lines 7 and 8: *That is northwest?* Here, the question structure began to be used correctly.

In sum, the participant started to use two types of question structures. One was...
what~ and the other was the to be verb question structure. This could indicate that the participant started to show more curiosity and interest in game terminologies. Since the participant did not acquire chunks that begin with the what~ question structure, it has been used as a two-word utterance. Additionally, the to be verb question structure has been replaced with “S + be + C + Question mark.” The following are the findings of conversation 8:

Table 16. Findings in conversation 8

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 4, what ore? (\rightarrow) question structure what</td>
<td>what~ first attempt</td>
</tr>
<tr>
<td>line 7, that is...? (\rightarrow) to be interrogative sentence</td>
<td>to be first attempt</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>Nothing observed</td>
<td></td>
</tr>
</tbody>
</table>

The next conversation contains the participant, Detre, and his friend, Kandaa. The participant’s English proficiency increased more than before, and his expressiveness could be considered as mid-beginner stage at this point in the research. The participant started to express his opinion a little, albeit grammatical errors were noticed, as he continued to interact with other players. The participant’s WoW knowledge was in its mid-stage, which means he knew the essentials of the game.

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Kandaa was Detre’s Korean female friend.
4.2.3 The changing period: from G-deleted routine to R-deleted routine

In the following conversation 9, the series of quotes were data collected in a single day. Kandaa and Detre were exchanging witty comments to each other. Kandaa was a blood-elf male, which was considered as a very good looking male in the game. While questing, Kandaa picked up a pair of pants, but it turned out to be a very short pair of pants. Other players who saw Kandaa said *sexy pants* as a witty comment. The participant was teasing Kandaa the next day after the *sexy pants* incident occurred.

Table 17. *Conversation 9-I*

<table>
<thead>
<tr>
<th>Time</th>
<th>Text</th>
</tr>
</thead>
</table>
| 10/18 00:16:38  | Detre: where is your sexy pants!!!
| 18              |                                                                                                                                       |
| 10/18 00:16:58  | Kandaa: i don't want to talk about it..-_-                                                                                           |
| 00:17:07:03     | Detre: why...                                                                                                                        |
| 17:17:646       | Detre: everybody like it.                                                                                                            |
| 10/18 00:17:22  | Kandaa: you know why...-__-                                                                                                          |
| 00:17:750       |                                                                                                                                       |
| 10/18 00:17:42  | Detre: i don't know why...T_t                                                                                                        |
| 00:17:673       |                                                                                                                                       |

The participant’s utterances appear a lot in this conversation. Additionally, he was holding the communicating initiative. In line 1, the participant used a correct form of interrogative question. As noted in previous conversations, the participant favors structuring *where~* questions. The participant reproduced the sentence from other players’ utterances. Technically speaking, the participant was showing the prefabrication from

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74 Detre was imitating other players’ speech.
75 Korean emoticon, used when one is annoyed or aghast by someone.
76 The original emoticon are used in Korean vowels ‘ㅜ’ and ‘ㅠ’. It indicates that one is crying ‘ㅜㅜ’ or ‘ㅠㅠ’. However, the participant used ‘TT’ in order to make the emoticon look like a crying emoticon.
Sinclair’s (1991) statement: “utterance = creativity + prefabrication”. In line 4, the participant structured everybody like it; it looks like a grammatically formed sentence, but like needs to be likes in this sentence. Referring from this error, the participant’s grammar ability was still low. In line 6, i don’t know why was a slightly changed prefabrication of Kandaa’s line 5 speech, you know why. The participant used Kandaa’s line 5 speech, changed the subject, and added a negative to the auxiliary verb. Considering the participant changed the subject and used a combined not and do, it is possible to assume that he had some grammatical knowledge. However his I don’t know why is closer to prefabrication than creativity because know why has been prefabricated. The participant used why as an interrogative question; however, the participant used why alone, and he didn’t think of the content coming after why, as if why stands alone all the time. Let’s look at the following examples.

1) Table 9, conversation 5, line 3 why...

2) Table 17, conversation 9-1, line 3 why..

The whys shown in examples 1 and 2 were used alone. It seems the participant habitually uses why alone until this time. That is why his why was considered as prefabrication.

In this conversation, the participant used Korean emoticons because he knew Kandaa was a Korean. It was possible to observe that the participant felt more comfortable using Korean emoticons (native emoticons) in order to express his own emotions. There is anecdotal evidence that bilinguals use their L1 on rational expressions and their L2 on emotional expressions. In this perspective, using Korean emoticons is valid register.
In sum, this conversation had shown patterns of Sinclair’s creativity and prefabrication. Additionally, the participant appropriately registered emoticons to the speaker. The following are the findings of conversation 9-1:

Table 18. Findings in conversation 9-1

<table>
<thead>
<tr>
<th>Form</th>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>line 1,</td>
<td>where is your sexy pants? → where</td>
<td>Prefabrication</td>
</tr>
<tr>
<td>interrogative question</td>
<td></td>
<td></td>
</tr>
<tr>
<td>line 4,</td>
<td>everybody like it. → grammatically wrong</td>
<td>Creativity</td>
</tr>
<tr>
<td>line 6,</td>
<td>i don’t know why. → why does not know</td>
<td>Prefabrication</td>
</tr>
<tr>
<td>grammar function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>line 6, emoticon → Korean style</td>
<td>Proper register</td>
</tr>
<tr>
<td>Significance</td>
<td>Communicating initiative. Utterances relied on prefabrication.</td>
<td></td>
</tr>
</tbody>
</table>

In the following conversation, the participant, Detre, and researcher, Sutak, were figuring out how to complete a series of quests. The researcher was encouraging the participant to speak more. The participant also used multiple fillers to sustain his flow. This was because the researcher had told the participant to read the quest and explain it back to him in Korean and English.

Table 17-2. Conversation 9-2

1. 10/18 00:34:36.261 Sutak: go go
In this conversation, the participant engages new game terminologies: line 5, *The Escape*; line 9, *Ignition Key*; line 10, *the control room* and *the derrick*. However, other language development was not observed. The participant had expressed lack of confidence through his speech. Previously, the participant relied on fillers, but in this conversation he used *next* in line 2 and *maybe* in lines 7 and 11.

In summary, the participant used various types of fillers in this conversation. In

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77 Language used to know the next quest.
78 As the participant struggled to find the quest, the researcher provided a hint.
79 Name of quest
80 Ignition is a name of a quest. The researcher implied that *Ignition* should be done first, but as the participant did not understand, the researcher explains in line 6.
81 The participant used *maybe* to express his lack of confidence
82 The participant is thinking
83 The participant is making sure if the *ignition key* is right
84 The participant’s language all of a sudden appears to develop. However the participant read the quest, thus, it was not his language. (Full quest description http://www.wowwiki.com/Quest:Ignition)
this perspective, the participant had used a new communication strategy and developed flexibility in his speech. The following are the findings in this conversation:

Table 18-2. Findings in conversation 9-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 5, <em>The Escape</em> → Quest terminology</td>
<td>Entering a new social setting</td>
</tr>
<tr>
<td>line 9, <em>Ignition Key</em> → Quest terminology</td>
<td>Entering a new social setting</td>
</tr>
<tr>
<td>line 10, <em>the control room</em> → Game related words</td>
<td>Entering a new social setting</td>
</tr>
<tr>
<td>line 10, <em>the derrick</em> → Game related words</td>
<td>Entering a new social setting</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 2, <em>next</em> → noun (filler function)</td>
<td>Sustain of his flow</td>
</tr>
<tr>
<td>line 3, <em>hm</em> → filler</td>
<td>Sustain of his flow</td>
</tr>
<tr>
<td>line 7, <em>maybe</em> → adverb (filler function)</td>
<td>Lack of confidence</td>
</tr>
<tr>
<td>line 8, <em>hm</em> → filler</td>
<td>Sustain of his flow</td>
</tr>
<tr>
<td>line 11 &amp; 12, <em>maybe there</em> → adverb (filler function)</td>
<td>Lack of confidence</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>Communication strategy developed, various language forms used that contain filler function.</td>
<td></td>
</tr>
</tbody>
</table>

**4.3 The third stage: notice of chunks**

In this stage, many substitutions were made. It means that the participant was noticing parts of routine. In Table 17-3, he substituted ‘A G-chunk’ for ‘B G-chunk’. In Table 17-4, he removed ‘A R-chunk’ for ‘B R-chunk’. In Table 17-5, his words were
shortened as one-word utterance which needs chunks for better expression.

4.3.1 Substitution period: G-chunks

Conversation 9-3 is a continued conversation from 9-2. In this conversation, Detre alone narrates while the researcher was questing. In the conversation, the researcher was trying to kill an elite\textsuperscript{85} monster, and the participant was happy to help the researcher. At this point in the research, both researcher and participant became familiar with the game play, and questing was becoming tedious to them. However, the elite monster provides a challenge that could be converted into amusement for the participant.

Table 17-3. Conversation 9-3

<table>
<thead>
<tr>
<th>Time</th>
<th>Detre's Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/18 00:39:15.847</td>
<td>Detre: here is...?\textsuperscript{86}</td>
</tr>
<tr>
<td>10/18 00:41:08.787</td>
<td>Detre: hmm\textsuperscript{87}</td>
</tr>
<tr>
<td>10/18 00:41:19.212</td>
<td>Detre: Lets go to kill elite!!</td>
</tr>
<tr>
<td>10/18 00:41:23.727</td>
<td>Detre: Ahahaha</td>
</tr>
<tr>
<td>10/18 00:41:25.213</td>
<td>Detre: ...\textsuperscript{88}</td>
</tr>
<tr>
<td>10/18 00:41:54.327</td>
<td>Detre: go to kill the elite monster..\textsuperscript{89}</td>
</tr>
<tr>
<td>10/18 00:41:55.781</td>
<td>Detre: .....</td>
</tr>
</tbody>
</table>

\textsuperscript{85} Elite monsters normally have more health and are difficult to kill than normal monsters.

\textsuperscript{86} The participant anticipates the elite will appear in this region, because he had been here before.

\textsuperscript{87} Sustain of his flow filler

\textsuperscript{88} Since the elite is not appearing, he shows his frustration through dots (including line 6).

\textsuperscript{89} Participant’s mumbling to himself.
9. 10/18 00:42:05.287 Detre: hu... 
10. 10/18 00:42:56.736 Detre: (yells) where is 
11. 10/18 00:43:03.611 Detre: (yells) the elite!! 
12. 10/18 00:43:52.378 Detre: come back91.. 
13. 10/18 00:44:10.179 Detre: hmm 

It was normal to observe a game player talking alone. Not all gamers speak alone, but in this case, the participant enjoyed talking alone while questing. However, speaking alone has an important role in language development. In the past, linguists thought that children learned L1 without any effort. However in 1962, Weir observed her two-and-a-half-year-old son (Anthony) talking alone (private speech) before going to bed. She later claimed that private speech had relations with language development. Later on, linguists stated that L1 children also had to practice for language development. Mitchell and Myles (2004) used Vygotsky’s notion of private speech in order to explain the relation of private speech with L1 children’s language development. Children will use private speech and make their own the language that they have learned and observed from the community.

In this perspective, the participant will develop his language through speaking alone, as shown in the conversation. The participant did not have interest in learning language, but from a language-learning perspective, he had to develop his language through private speech. Through private speech, the participant was revising his language.

The language produced by the participant in Table 19 was language he had learned prior

90 Korean sigh sound in English letters.
91 A monster will regenerate after it is killed. In Korea the game terminology for this action is known as gen, and in English it is called spawn. However the participant did not know spawn, thus used a general form of come back instead.
to this conversation. Unconsciously, he was using the language he knew.

In line 1, the participant lightened up because he has been to this area before, although due to his lack of proficiency in English, he was able to only say *here is*. Line 3, *Let's go to Kill elite!!* could be considered as a re-phrase of what the participant had observed before. Considering that in line 1 the participant’s language was still lacking proficiency, it is hard to believe that his language all of a sudden got better on line 3. Therefore, it is possible to conclude that the participant had observed the line-3 expression from other interactions and tried mimicking it in this conversation. This is also known as prefabrication. Line 7, *go to kill the elite monster*, was also prefabrication. The participant’s expression in lines 10 and 11, *where is the elite?* indicates that he had acquired the “where + be + S” forms. This form had been observed many times in previous conversations.

In this conversation, new game terminology, *elite monster*, appears. I have noted game terminology as *entering a new social setting*, but from this point I would prefer to observe it in a Task-based language teaching (TBLT) point of view. Skehan (2003) noted that tasks require language use, but the language is mainly focused on the meaning of the context. Moreover, the primary concern needs to be focused on achieving the purpose. Nunan (2004) argued that a target task helps to use the language outside the classroom in the real world. Considering the two scholars’ perspectives, the game terminologies that appear in *World of Warcraft* can be considered as tasks.

In line 12, it was interesting how the participant used a communication strategy. *Come back* was a normal sentence, but this was because the participant did not know the game terminology *spawn*. Although conversation 9-3 was mostly the participant’s private
speech, it is interesting to see how he enjoyed the game while finding the suitable expressions. The same strategy was used in line 9, where he spelled out a sigh sound in English. In this perspective, lines 5, 6, and 9 could be considered in the same view. U.S. players would not understand these expressions because, generally, Asian countries (especially Japan and Korea) use these expressions. The participant used emoticons or dots to express his suffering feelings to increase catharsis.

In sum, the participant had shown his private speech for the first time. Additionally, new game terminology was considered as the new world of tasks. He used *come back* as a communicative strategy to substitute for the game knowledge that he was not aware of. Based on experience, in game settings—especially MMO games—players tend to speak by themselves. If the private speech in the game can be related with foreign-language learning, I believe that the correlation with games and foreign-language learning could increase. The following contains the findings in this conversation:

Table 18-3. *Findings in conversation 9-3*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 1, <em>here is</em>… → fail to finish sentence</td>
<td>English proficiency is low</td>
</tr>
<tr>
<td>line 3, <em>Let's go to kill elite</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 7, <em>go to kill the elite monster</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 10&amp;11, <em>Where is the elite</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 7, <em>the elite monster</em> → game terminology</td>
<td>New task</td>
</tr>
</tbody>
</table>
4.3.2 Substitution period: R-chunks

The next conversation was between the participant, Detre, and a NPC (Non-Player Character), Wizzlecrank. The NPC only could elaborate on the pre-programmed quest conversations, but the NPC’s utterances were noted in the chatlog. In this conversation, Detre fooled around with the NPC and interacted with it as if it was a real person. In the conversation, the researcher was doing an escort quest,\(^92\) and the participant was helping him. However the NPC was walking too slowly, and the participant began to complain about it to the NPC.

Table 17-4. Conversion 9-4

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>10/18 00:45:47.363 Detre: here we go~~~</td>
</tr>
<tr>
<td>2.</td>
<td>10/18 00:45:58.245 Detre: hey man(^93)</td>
</tr>
</tbody>
</table>

\(^92\) Escort quest is when the player safely escorts the NPC from a specific starting point to a finish point. During the quest, monsters spawn and attack randomly; thus this could be difficult in the early part of the game.

\(^93\) The participant speaks to NPC.
As the participant’s interest in the game increased, his participation in the *Wow* community also increased. In this conversation, the participant was talking to the NPC to move faster. In line 1, the participant indicated the start of the quest. This was prefabrication. In line 2, an interjection, *man*, appeared. Previously the participant relied

---

94 The participant used exclamation mark to indicate to the NPC to hurry up.
95 dismay
96 a huge sigh sound
97 dismay
on emoticons to express his emotions, but here using word forms began to appear. In line 3, he used exclamation marks for the first time to demand haste. In line 9, the participant used a question mark in order to express the level of the sigh sound. In line 11 and 12 he used what’s this? and hey r u kidding? in order to show his dismayed feeling. Line 13 indicates the normal three dots the participant favors to use.

In sum, the knowledge of the game encouraged the participant to speak more than before. Also, he began to use words to express his feelings rather than emoticons. The following are the findings of conversation 9-4:

Table 18-4. Findings in conversation 9-4

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, <em>here we go</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 2, <em>man</em> → interjection</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 11, <em>what’s this?</em> → interrogate question starting with <em>what</em></td>
<td>Private speech (dismay)</td>
</tr>
<tr>
<td>line 12, <em>r u kidding?</em> → prefabrication</td>
<td>Private speech (dismay)</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 3, <em>go!!</em> → hurry</td>
<td>Used exclamation mark</td>
</tr>
<tr>
<td>line 9, <em>huu??</em> → Sigh</td>
<td>Used question mark</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>Using words to express feelings, not only emoticons. Private speech.</td>
<td></td>
</tr>
</tbody>
</table>
4.3.3 ‘Hunger for’ period: chunks

The following conversation was between the participant, Detre, and the researcher, Sutak. They were doing the same quest from conversation 9-4. During the researcher’s quest, the participant could not see the researcher’s monsters because the quest was only for the researcher. However, at the end of the quest line, when monsters spawn massively, the participant could also see them; the following conversation contains the conversation of this event.

Table 17-5. Conversation 9-5

<table>
<thead>
<tr>
<th>Time</th>
<th>Detre:</th>
<th>Sutak:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 10/18 02:37:57.732</td>
<td>hu.</td>
<td></td>
</tr>
<tr>
<td>2 10/18 02:38:01.603</td>
<td>not good</td>
<td></td>
</tr>
<tr>
<td>3 10/18 02:38:03.601</td>
<td>It’s a problem..</td>
<td></td>
</tr>
<tr>
<td>4 10/18 02:38:06.557</td>
<td>yea</td>
<td></td>
</tr>
<tr>
<td>5 10/18 02:38:18.641</td>
<td>I can't see yours</td>
<td></td>
</tr>
<tr>
<td>6 10/18 02:38:22.722</td>
<td>ha.</td>
<td></td>
</tr>
<tr>
<td>7 10/18 02:38:25.723</td>
<td>huh</td>
<td></td>
</tr>
<tr>
<td>8 10/18 02:54:09.652</td>
<td>hey guy</td>
<td></td>
</tr>
<tr>
<td>9 10/18 02:54:16.563</td>
<td>stop now?</td>
<td></td>
</tr>
<tr>
<td>10 10/18 02:54:17.902</td>
<td>stop!</td>
<td></td>
</tr>
</tbody>
</table>

98 As the event occurred unexpectedly, the participant made the sigh sound
99 situation was not looking good
100 yours=your monster
101 talking to NPC
102 The participant was talking to the NPC. As the NPC moves, he asked the NPC to stop, because he already knew that monsters will attack soon.
11 10/18 02:54:20.121  Kaya Flathooft: Look out! We're under attack!

<After killing all the monsters>

12. 10/18 03:01:44.865  Sutak: hu....

13 10/18 03:01:50.167  Detre: It's surprise!!!

14. 10/18 03:02:01.163  Detre: WoW~ 'w'

15. 10/18 03:08:29.098  Detre: Mr. 9

16. 10/18 03:08:40.377  Detre: where r u~

In lines 3, 5, 13, and 16, the participant expressed new forms of language. It was surprising to observe the occurrence of new forms of language in one day. The interactions that occurred in conversation 9 could be summarized as:

9-1: The participant leads the conversation. This pattern did not appear in the previous conversations.

9-2: The participant shows lack of confidence in language. The new game terminology has caused the participant to lose his confidence in producing language. It could be assumed that the new quests were difficult for the participant to handle.

9-3: The participant presented private speech.

9-4: The participant interacted with the pre-programmed NPC character. This was also a part of private speech.

9-5: The participant interacted with the researcher and also with the NPC

---

103 NPC name
104 NPC character notifies the players that monsters will attack
105 Last monster’s name
106 The participant anticipates the last monster (Mr. 9) to spawn
character. New language forms had appeared.

The gap of time between conversations 8 and 9 was one-and-a-half months. It was certain that the participant’s language had developed during this period of time. The private speech in conversations 9-3 and 9-4 indicated that he was producing language that he had learned/memorized during the one-and-a-half-month period of game play. If he did not learn any language (input of language), he could not have spoken the language. In line 9-5, the researcher only spoke in lines 3 and 9. The private speech of the participant was in lines 8, 10, 13, 14, 15, and 16. Among these utterances, the following consist of sentence forms.

Line 3: *It’s a problem.*

Line 5: *I can’t see yours.*

Line 13: *It’s surprise!!!*

Line 16: *where r u?*

The four sentence forms were all the result of prefabrication. The sentences were related with the game; thus other players had spoken the sentences before.

Fillers were noticed only in line 1, as a sigh sound. Exclamation was observed in line 6, as an expression of *oh goodness*, and in line 14 the participant says *Wow*. Lines 8 and 15 contained the participant’s proper form of address, and in line 10, command form was observed.

In sum, conversation 9-5 consists of various language forms and functions. Interaction with the researcher and private speech were observed. The following table consists of these findings.

Table 18-5. *Findings in conversation 9-5*
<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Remarks</td>
</tr>
<tr>
<td>line 3, <em>It’s a problem.</em> → prefabrication</td>
<td>Interaction with researcher</td>
</tr>
<tr>
<td>line 5, <em>I can’t see yours.</em> → prefabrication</td>
<td>Interaction with researcher</td>
</tr>
<tr>
<td>line 13, <em>It’s surprise!!!</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 16, <em>where r u?</em> → prefabrication</td>
<td>Private speech</td>
</tr>
<tr>
<td>line 8, <em>guy</em> → noun</td>
<td>Name calling</td>
</tr>
<tr>
<td>line 15, <em>Mr. 9</em> → noun</td>
<td>Name calling (monster name)</td>
</tr>
<tr>
<td>line 10, <em>stop</em> → verb</td>
<td>Command</td>
</tr>
<tr>
<td>line 14, <em>Wow~’w’</em> → exclamation</td>
<td>Exclamation</td>
</tr>
<tr>
<td>Function</td>
<td>Remarks</td>
</tr>
<tr>
<td>line 1, <em>hu</em> → sigh sound</td>
<td>Expressing difficulty</td>
</tr>
<tr>
<td>line 6, <em>ha</em> → tired sound</td>
<td>Expressing difficulty</td>
</tr>
<tr>
<td>Significance</td>
<td>Remarks</td>
</tr>
<tr>
<td>Sudden language development, more word class appears, conversation occurs as interacting with others and self.</td>
<td></td>
</tr>
</tbody>
</table>

### 4.4 The fourth stage: producing sentences (Grammar consciousness raising)

In this stage, the participant was actively constructing sentences with ‘chunk +
routine’. In Table 19-1, ‘R-chunk + G-routine’ and ‘R-chunk + R-routine’ sentences appeared. In Tables 19-2, 19-3, and 19-4, combinations of R- and G-routines created discourse. However, the participant committed grammatical errors in the process of such combinations which lead to grammar consciousness raising (see, Table 19-5 and Table 19-6).

4.4.1 Sentence period: ‘chunk + routine’

The following conversation was about the participant, Detre, and the researcher, Sutak. The conversation was spoken on October 21, 2008. Previously, the research was conducted with both the researcher and participant together in a room. However, in this conversation, the participant finally got an Internet connection at his place; therefore, he was very happy to play *World of Warcraft* at home.

Table 19-1. *Conversation 10-1*

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/21 23:05:52.605</td>
<td>Detre</td>
<td>it's first time</td>
</tr>
<tr>
<td>2</td>
<td>10/21 23:06:07.665</td>
<td>Sutak</td>
<td>for what&gt;?</td>
</tr>
<tr>
<td>3</td>
<td>10/21 23:06:17.827</td>
<td>Detre</td>
<td>...I can't believe...I'm playing wow at my home;;</td>
</tr>
<tr>
<td>4</td>
<td>10/21 23:06:21.828</td>
<td>Detre</td>
<td>....</td>
</tr>
<tr>
<td>5</td>
<td>10/21 23:06:40.205</td>
<td>Sutak</td>
<td>ah...</td>
</tr>
<tr>
<td>6</td>
<td>10/21 23:06:41.128</td>
<td>Sutak</td>
<td>yea</td>
</tr>
</tbody>
</table>

The participant’s excitement was expressed in three dots.

---

107 the participant’s excitement was expressed in three dots
Table-19-1 contains the participant’s conversation that for the first time was not related to the game. This type of conversation could have an impact on his language development. In sociolinguistics, as pidgin develops to creole, language functions not used in pidgin are observed in creole, which means language development happens from pidgin to creole. The pidgin-to-creole development was occurring similarly in Table 19-1. As the participant began to speak non-game related content, the game-related terminology could provide him with language forms that have more various language functions than game-related words.

In line 1, the participant started his conversation saying *it’s first time*. It seems that line 1 was not grammatically constructed. Rather, it was a prefabrication that he borrowed from other game users saying it. Semantically, *it* refers to *playing the game at home*, but he didn’t seem to use *it* like that. Rather, he inserted *it* in the position of subject, not knowing the meaning of *it*. Specifically speaking, what he wanted to say was only *first time*. Without any intention, he filled the subject position with *it*. Considering his habit of using *it* in the previous conversations, his *it* does not carry any meaning. Of course the participant used *it* as a normal noun, such as in line 8. However this will be discussed in explanations of line 8 later in this section.

In line 3, the participant used a sentence he had never used before. It is assumed that the participant learned the *I can’t believe* sentence from other players’ interaction. This is because, if he did construct his sentence grammatically, other expressions should
present consistency; however, he does not show any patterns of consistency so far.

Additionally, the *I can’t believe* expression was not difficult to observe from native speakers due to the fact that it was used very often; thus this is viewed as prefabrication. *I’m playing WoW at home* was also close to prefabrication. *Playing WoW* was learned from the game and *at home* could be learned from a different context; thus the sentence was constructed by putting these two expressions together. In addition, for the ∼ing form in *playing WoW*, it is not clear if the participant had acquired the present progressive form at this time of research. Up to this conversation, the participant used the ∼ing form twice.

1) Conversation 3, line 7: *just checking my quest*

2) Conversation 9-4, line 12: *r u kidding?*

These two utterances did contain present progressive usage, but 1) was a chunk and 2) was prefabrication\(^\text{108}\); thus it is difficult to conclude that the participant used the present progressive grammar form. However, due to lack of evidence, this was an assumption at this moment.

In line 8, *I think, it’s enough* was prefabrication. The *I think* form could be observed frequently in the game or in other contexts. Therefore, there is no doubt that it was prefabrication. However, *it’s enough* needs some explanation. In line 7, he was asked *fast enough*, and he answered back as *enough*. The participant seemed to be clever enough to answer with *enough*, using part of Sutak’s *fast enough*. Additionally, he used *it*,

\(^{108}\) Chunks and prefabrication are known as similar concepts, but in this research I indicate that chunk was used when it was not observed in a full sentence form and prefabrication as when it was formed into a full sentence.
which means the Internet and seemed to intentionally delete fast. In this respect, the participant seemed to show enhancement of his grammatical ability. However his use of it can be regarded as habit as in line 1. So we cannot say that the participant has definitely improved grammatical ability, even though he is beginning to show signs of grammatical improvement.

In summary, this conversation contains the participant’s personal experience, not discussion of playing World of Warcraft. In a lexical approach perspective, his conversations rely on chunks and prefabrication but show the ability to construct a full sentence. In grammar knowledge he has shown using it as a pronoun.

Table 20-1. Findings in conversation 10-1

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1 → it’s first time.</td>
<td>Prefabrication</td>
</tr>
<tr>
<td>line 3 → I can’t believe I’m playing wow at home</td>
<td>Chunk + prefabrication, compound sentence used</td>
</tr>
<tr>
<td>line 8 → I think, it’s enough</td>
<td>Chunk + prefabrication</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1 → it’s first time.</td>
<td>Experience</td>
</tr>
<tr>
<td>line 3 → I can’t believe I’m playing wow at home</td>
<td>Excitement</td>
</tr>
<tr>
<td>line 4, …. → exclamation function</td>
<td>Extension of</td>
</tr>
</tbody>
</table>
4.4.2 Discourse period: ‘routine + routine’

The participant’s knowledge of the game was at the mid-stage, but his English proficiency relied heavily on direct translation of his mother language, Korean, or borrowing from other players’ interactions. From this point in the research, the researcher let the participant to play alone more, because his knowledge of the game was enough to play *World of Warcraft* alone.

The participant, Detre, and researcher, Sutak, moved to a new region named Ashenvale. They picked up new quests and a new transportation flight path. In *World of Warcraft*, transportation is considered as walking (running), riding a mount, or flying (long distance). Between continents, Horde uses zeppelins and Alliance uses boats to transport. In order to fly between regions, a flight path must be connected together. Talking to the flight-path master in a new region will automatically connect the flight paths together. Thus, checking with a flight path in a new region is considered an essential thing to do.
When encountering a new region, the participant was required to learn new things. As a result, he had more questions and mumbled to himself very often. In conversations 8 and 9-2, as he entered a new social setting, the participant used interrogative sentences and expressed lack of confidence. In this conversation, he used interrogative sentences

109 The original sentence is: Do I need to take this quest? The researcher always told the participant to take the quest, and used the verb take a lot.

110 Name of region in World of Warcraft

111 The participant was thinking to find the location of the next quest.

112 New quest name

113 Aha means okay. It is the sound of okay in Korean.
and private speech, too.

In line 1, *I need to take this?* should be *Do I need to take this quest?* Structuring an interrogative sentence, the subject and verb need to invert, but the participant only used a question mark on the declarative sentence. The participant used the verb *Take* for the first time. The research used the verb *take* very often; therefore, the participant used the same verb. The interrogative sentence in line 9 was in correct word order. He used the interrogative sentence that starts with *what*; a *what* interrogative sentence had been observed before in conversation 9-4.

Conversation 9-4, line 11: *what’s this?*

The *what* interrogative sentence appeared as a private speech in conversation 9-4. In this conversation, the participant repeated a sentence starting with what. Considering he used a *what* sentence alone in 9-4 and used it to the researcher in this conversation, it was possible to conclude that he had acquired the *what* form.

In lines 12 and 13, the participant was talking to himself as he was acknowledging the new quest. In line 12, he used *new place* because he was not familiar with the game terminology Ashenvale. Line 13, *it’s interesting* was used the same way Koreans normally use *interesting*. The Korean dictionary translates *interesting* as fun or exciting; thus the participant used *interesting* in the Korean-dictionary meaning. The two expressions were both communicative strategies; line 12 was used to substitute the new game terminology, and line 13 was transferring L1 to L2 directly.

In summary, the participant entered a new task, and naturally he had lots of questions. He used the correct word order in an interrogative question sentence, but failed to invert the subject and *do* verb. As a result he did not acquire how to structure
interrogative sentences. The participant’s communication strategy appeared to involve substituted words with unfamiliar game terminology and relied on his L1 knowledge to express his L2. The following are the findings of conversation 10-2:

Table 20-2. *Findings of conversation 10-2*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, <em>I need to take this?</em> → interrogative sentence</td>
<td>Did not use <em>do</em> verb</td>
</tr>
<tr>
<td>line 1, <em>take</em> → new verb</td>
<td>Learned from the researcher</td>
</tr>
<tr>
<td>line 9, <em>what’s the quest name?</em> → interrogative, interrogative sentence</td>
<td>Acquired</td>
</tr>
<tr>
<td>line 12, <em>new place</em> → communication strategy</td>
<td>Creativity</td>
</tr>
<tr>
<td>line 13, <em>it’s interesting</em> → communication strategy</td>
<td>Borrowed from L1</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>Line 11, <em>aha</em> → exclamation of okay sound in Korean</td>
<td>Only sound was translated into English</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>New verb <em>Take</em> was used. Learned from the researcher.</td>
<td></td>
</tr>
<tr>
<td>Acquired interrogative sentence starting with what.</td>
<td></td>
</tr>
<tr>
<td>Previously used it alone, but eventually it was used in conversation.</td>
<td></td>
</tr>
<tr>
<td>The participant relied on prefabrication before, but in this conversation he structured his own sentence.</td>
<td></td>
</tr>
</tbody>
</table>
He substituted the game terminology with words he already knew.

In the following conversation, the participant, Detre, and the researcher, Sutak, thought there were too many monsters to kill in the quest they just received. The participant complained that the monsters were spawning unlimitedly, but the researcher tells him that level 31 monsters were easy to kill.

Table 19-3. Conversation 10-3

1. 10/21 23:14:30.267 |Hchannel:Party|h[Party]|h Detre: monster\textsuperscript{114} comes again and again...


3. 10/21 23:14:33.772 |Hchannel:Party|h[Party]|h Sutak: 31 is easy...

<After finishing the quest, they move on with other quests>


6. 10/21 23:16:51.384 |Hchannel:Party|h[Party]|h Sutak: maybe another place\textsuperscript{117}


9. 10/21 23:17:21.316 |Hchannel:Party|h[Party]|h Sutak: if you see torek\textsuperscript{118} we need that

\textsuperscript{114} Normally monsters were known as mobs. However the participant did not receive this input; thus he used the monster form.

\textsuperscript{115} The participant elaborated this sound in order to indicate that he did not know which quest he should continue with.

\textsuperscript{116} Indicates what quest the participant needs to do.

\textsuperscript{117} Between 5 and 6, a conversation about how the quest could be located in a different region has been omitted.
In this conversation, the participant confronted new tasks. As a result, many interrogative sentences and new words appear. In line 1, the participant said *monster comes again and again*. This form was not observed before; however, it could be assumed that it has been acquired by the participant. In line 2, the one-word utterance *endless* appears. In L1 acquisition, a year after birth a child produces his or her first words and then speaks one-word utterances. As speech develops into two-word or three-word utterances, grammar is also learned at this period of time. When the participant engaged with a new social setting and was given a new task, his speech was very similar to a year-old child’s utterance patterns. In other words, L1 children and L2 adults develop language through repeating the one-word utterance to three-word utterance whenever new tasks are engaged. In line 5, the participant used an interrogate sentence with *what* but did not use *do*. In line 11, the participant used the adverb of place *there*, but the question was the location of the adverb of place *there*, which usually goes at the end of

118 Torek is an NPC and provides a quest name Torek.
119 The participant discovers a flying path.
120 Home in *World of Warcraft* means a place where the hearthstone (normally known as HS) takes you back. Hearthstones can only be used in inns, and the place you set your hearthstone is now your home. Wherever you are in Azeroth (the *World of Warcraft* world), the hearthstone will bring you back to that specific inn. However this ability can be used only once every hour. Normally players will set home at the nearest inn with all the quests. That way, after finishing all the quests, they can come back home with one button.
the sentence. Line 12 was an interrogative sentence. But the participant did not use the auxiliary verb *do*. Instead he put a question mark ? at the end of line 12. This means that he did not know how to use the auxiliary verb *do* until this conversation.

In summary, the participant has shown language development as he engaged with new tasks. The problem was that he did not know how to appropriately use the auxiliary verb *do* in order to make an interrogative sentence and committed errors.

Table 20-3. *Findings in conversation 10-3*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, ~<em>comes again and again</em> → prefabrication</td>
<td>New sentence</td>
</tr>
<tr>
<td>line 2, <em>endless</em> → one-word utterance</td>
<td><em>it’s endless, it’s dropped.</em></td>
</tr>
<tr>
<td>line 5, <em>what we need</em> → grammatically wrong</td>
<td>Does not know do auxiliary verb</td>
</tr>
<tr>
<td>line 11, <em>there is flying</em> → <em>There</em></td>
<td>Adverb of place <em>there</em></td>
</tr>
<tr>
<td>line 12, <em>we need to make home here?</em> → grammatically wrong</td>
<td>Does not know do Auxiliary verb</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, ~<em>comes again and again</em></td>
<td>Portrait of fact</td>
</tr>
<tr>
<td>line 2, <em>endless</em> → one-word utterance</td>
<td>Emphasizing fact</td>
</tr>
<tr>
<td>line 4 <em>hmn?</em> → paralanguage</td>
<td>Curious sound</td>
</tr>
</tbody>
</table>
The participant produced utterances, depending on prefabrication. It seems that there was a high probability to produce one-word utterances again when he faced new tasks, as L1 children do in their language development. The participant did not know how to use the auxiliary verb *do*. Basically, adverb of place *there* comes at the end of sentence.

The following conversation was about the participant, Detre, and researcher, Sutak, continuing to do the Torek quest from conversation 10-3. The researcher died during questing and was going back to his corpse\textsuperscript{121}. The researcher told the participant to go back to the beginning of Torek quest because he needed to do it all over again.

Table 19-4. *Conversation 10-4*

| 1. 10/21 23:29:49.251 | Hchannel:Party|h[Party]|h Detre: he disappeared\textsuperscript{122} |

\textsuperscript{121} If you die in *World of Warcraft*, you become a ghost. In order to revive without penalty you need to go back to your corpse and revive.

\textsuperscript{122} Torek has disappeared. After the quest is finished or failed the NPC will disappear for a little while and then resets.
<table>
<thead>
<tr>
<th>Time</th>
<th>Chat</th>
<th>Participant</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/21 23:30:07.146</td>
<td>Party</td>
<td>Detre</td>
<td>well, it doesn't matter</td>
</tr>
<tr>
<td>10/21 23:30:12.671</td>
<td>Party</td>
<td>Sutak</td>
<td>that mean</td>
</tr>
<tr>
<td>10/21 23:30:15.276</td>
<td>Party</td>
<td>Sutak</td>
<td>you did the quest</td>
</tr>
<tr>
<td>10/21 23:30:33.205</td>
<td>Party</td>
<td>Detre</td>
<td>yes</td>
</tr>
<tr>
<td>10/21 23:30:47.117</td>
<td>Party</td>
<td>Detre</td>
<td>maybe, sister is success too, right?</td>
</tr>
<tr>
<td>10/21 23:30:56.218</td>
<td>Party</td>
<td>Sutak</td>
<td>let me check</td>
</tr>
<tr>
<td>10/21 23:31:10.266</td>
<td>Party</td>
<td>Detre</td>
<td>torek's assault</td>
</tr>
<tr>
<td>10/21 23:31:18.412</td>
<td>Party</td>
<td>Sutak</td>
<td>yes</td>
</tr>
<tr>
<td>10/21 23:31:20.221</td>
<td>Party</td>
<td>Detre</td>
<td>so</td>
</tr>
<tr>
<td>10/21 23:31:26.452</td>
<td>Party</td>
<td>Detre</td>
<td>go back, and try one more</td>
</tr>
</tbody>
</table>

In the conversation-10 series, the participant has been speaking a lot. This could be because he has spent more time in the game than before, but his knowledge of the game has also increased and helped him to speak more in the game.

In Table 19-4, the participant used new language forms. Line 1 was a new expression, but was related to the game, thus the participant copied other players conversation. This was prefabrication. Line 2, *it doesn't matter*, was not noted in previous data, but it was not structured from his grammatical knowledge, and it was considered as a routine, thus it was also prefabrication. Line 6 *sister is success* was

---

123 Since Torek was gone, the participant indicates that there was no rush to coming back to the corpse, because the researcher will need to do it all over again anyways.
124 Participant’s friend
125 Name of quest, the participant was reassuring the quest name to the researcher.
creativity, albeit there were grammatical errors, so the participant structured the sentence. *Go back* and *try one more* were also routines. These were not grammatically formed sentences but combinations of routines that the participant knew.

In this conversation the participant used a new game terminology: *Torek’s Assault*. The expressions related with game terminology were in lines 1 and 12. During the *Torek* quest, as the researcher died and failed the quest, *Torek* disappeared; thus the participant used the word *disappear*. Moreover, the participant’s 12 and the researcher 11 were a routine action that happens after the quest fails. Specifically speaking, when a new task was given to him, automatically relevant expressions about the new task came out, as in line 1 and line 12. If the participant did not have game-related expressions in his lexicon, he was forced to start a new task with one-word or two-word utterances. For example, *Torek’s assault* was a two-word utterance, which means he did not have the relevant expressions in his lexicon. In other words, a new task means a new social setting. A visitor would not know what to do in the new society. If someone did not know the target language, but had to go to some place they intend to visit, normally they would try to find a way to communicate with the local people. Luckily, if they knew the name of the visiting place—for instance, *Penn State*—then they will ask around, saying: *Penn State?* This is a two-word utterance.

In summary, the participant had used new expressions and language forms in this conversation, mostly prefabrication. Especially in line 12, the participant formed a sentence using chunks that were previously learned through observation of other interlocutors. Up to this point of research, the participant’s grammatical knowledge was low. In line 6, the noun *success* should be the adjective *successful*. Considering it was
only S+V+O form, it could be concluded that the participant’s grammatical knowledge was in the beginner stage. However, his ability to communicate through chunks seems to be comfortable to him. In this perspective, Nattinger and DeCarrico’s (1992) claim that usage of chunks promotes the fluency of language is applicable. In addition, the participant entered a new task (*Torek’s Assault*), which indicated that he entered a new social setting (lines 1 and 12). The following are the findings for this conversation.

Table 20-4. *Findings in Conversation 10-4*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, <em>he disappeared</em> → prefabrication</td>
<td>Result of new task</td>
</tr>
<tr>
<td>line 2, <em>it doesn’t matter</em> → prefabrication</td>
<td>Productive use</td>
</tr>
<tr>
<td>line 6, <em>sister is success</em> → creativity</td>
<td>Grammatical error</td>
</tr>
<tr>
<td>line 8, <em>torek’s assault</em> → game terminology</td>
<td>New task, two-word utterance</td>
</tr>
<tr>
<td>line 12, <em>go back and try one more</em> → prefabrication</td>
<td>Routine + routine</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1 → <em>he disappeared</em></td>
<td>Discover</td>
</tr>
<tr>
<td>line 2 → <em>it doesn’t matter</em></td>
<td>Relax</td>
</tr>
<tr>
<td>line 6 → <em>sister is success</em></td>
<td>Opinion</td>
</tr>
<tr>
<td>line 8 → <em>torek’s assault</em></td>
<td>Explaining</td>
</tr>
<tr>
<td>line 12 → <em>go back and try one more</em></td>
<td>Agreement</td>
</tr>
<tr>
<td>line 2, <em>well</em> → filler</td>
<td>Use of a classy filler</td>
</tr>
<tr>
<td>line 6, <em>maybe</em> → adverb</td>
<td>Expressing intentions</td>
</tr>
</tbody>
</table>
The prefabrication could be noticed significantly, especially forming a sentence by adding routines was became very active. Additionally, expressing his intentions (maybe) or confirming (right) others’ intentions has been noticed; communication skill increased.
Through new tasks, new language forms and expressions appeared.

4.4.3 Grammar consciousness raising period

The next conversation was the participant, Detre, and researcher, Sutak, doing the Torek’s Assault quest all over again. Since both of them already knew how to do the quest, both of them wanted to finish the quest quickly.

Table 19-5. Conversation 10-5

1. 10/21 23:32:47.220 [Hchannel:Party|h[Party]|h Detre: they are

126 There is the quest again (line 1+2)
9. 10/21 23:34:00.703 |Hchannel:Party|h[Party]|h Sutak: no one 129

Table-19-5 shows that the participant's language forms had developed to a certain level, especially in terms of grammar. The following are lines 1 and 2 and the correct sentence that should have been used:

1) **They are another quest.** (Line 1+ 2)

2) **There is the quest again.**

The participant did not acquire the *there is* form yet. This has been noted in conversation 10-3. Comparing 1) and 2), the singular form *the quest* has been used with the plural form of *they*. The participant did not seem to consider the singular and plural forms yet, because he has been focusing on the game and communicating with sentences formed with chunks. Specifically, it does not mean that the participant did not know the singular and plural form; rather, he was not aware of it while playing the game. The participant used *another quest* when he should have used *the quest again*. He seems to be

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127 Korean-style emoticon, smiling. Same with: :), ^-^  
128 The participant was rushing the NPC character Torek, because he wanted to finish it quickly.  
129 Went to fight with Torek, but no monsters were there.
accustomed to another form that the researcher used in table-19-3 line 6. The participant used another instead of again; this was a negative transfer from L1 to L2, because in Korean again and another were used identically. In lines 4 and 7, the researcher has used the gogo expression several times, and the participant acquired it. Line 6, here is nothing, was also interesting. The participant used the adverb here in front of line 6 in order to mean in this place. The word order was identical to Korean word order. In Korean, the adverb here can be used in front of the sentence and does not require any other words. However in English, in order to have the adverb here in the front of the sentence, it should be structured as below:

3) We’ve lived here for over 20 years.

4) I want to get out of here as soon as I can.

5) Look, here are the rose bushes that I planted last year.(spoken)\(^{130}\)

Generally speaking, when the adverb here means in this place, it is situated in the sentence as in 3) and 4). However, when the subject is long, as in 5), here is positioned in front of the sentence and the subject and the verb are inverted. This is a positive transfer from L1 (Korean) to L2 (English). In line 8, the participant used a comparative form. He used more fast in the place where faster should be appropriate, and this was a case of using more as overgeneralization. In line 10, they come out, the participant excluded the will.

In sum, the participant has not shown grammar consciousness raising\(^{131}\). This is not because he was poor with grammar knowledge but because he was not aware of it.

\(^{130}\) 3), 4), and 5) were extracted from Macmillan English Dictionary (2002, p.659)/
However, the participant had shown transfer, interference, and overgeneralization; thus it is possible to conclude that subconsciously he was attempting the L1 to L2 cognitive movement. The following table presents the findings in conversation 10-5.

Table 20-5. *Findings in conversation 10-5*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 2, <em>another quest</em> → interference from L1</td>
<td>Confusion of <em>another</em> and <em>again</em></td>
</tr>
<tr>
<td>line 6, <em>here is nothing</em> → transfer from L1</td>
<td>Revert <em>here</em> to the front of the sentence</td>
</tr>
<tr>
<td>line 8, <em>more fast</em> → overgeneralization among L2</td>
<td>First attempt of comparative form</td>
</tr>
<tr>
<td>line 10, <em>they come out</em> → <em>will</em> dropped</td>
<td>Could not future auxiliary verb&lt;sup&gt;132&lt;/sup&gt;</td>
</tr>
<tr>
<td>line 10, <em>they</em> → chunk</td>
<td>Lack of knowledge about singular and plural.</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 4 &amp; line 7, <em>gogogo</em> → Rushing</td>
<td>Prefabrication</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>Participant’s grammar consciousness raising cannot be confirmed, but he has been cognitively using transfer,</td>
<td></td>
</tr>
</tbody>
</table>

<sup>131</sup> Explicit attention to language form

<sup>132</sup> Since English does not have future tense, future auxiliary verb was used instead.
interference, and overgeneralization between L1 and L2.

In the following conversation, the participant, Detre, and the researcher, Sutak, were questing and confronted a familiar region. Currently both of them were playing the Horde, but in the beginning of the research, they played the Alliance, and that region was where they used to quest. In this conversation, Detre and Sutak were Horde and were wondering if they could meet any Alliances to fight.

Table 19-6. *Conversation 10-6*

<table>
<thead>
<tr>
<th>Time</th>
<th>Channel</th>
<th>[Party]</th>
<th>[Party]</th>
<th>[Party]</th>
<th>Speaking</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/22 00:03:34.598</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>i know this map</td>
</tr>
<tr>
<td>10/22 00:04:06.325</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>we played draenei in this</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>map, right?</td>
</tr>
<tr>
<td>10/22 00:04:38.511</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Sutak</td>
<td>yes...</td>
</tr>
<tr>
<td>10/22 00:04:40.076</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Sutak</td>
<td>you’re right</td>
</tr>
<tr>
<td>10/22 00:05:01.081</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>maybe there are.</td>
</tr>
<tr>
<td>10/22 00:05:10.588</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>a lot of draenei!!</td>
</tr>
<tr>
<td>10/22 00:06:20.787</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>he..it's..so interesting</td>
</tr>
<tr>
<td>10/22 00:06:28.727</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>[Party]</td>
<td>Detre</td>
<td>i know here</td>
</tr>
</tbody>
</table>

---

133 Game terminology: indicates that the participant has been in the region before.
134 Game terminology: a race in Alliance.
135 The participant was thinking of his past experience.
136 The participant knew that many Draenei players were located in this area, thus his growth of game knowledge could be observed.
137 The participant indicated that it was very interesting to come to a region in a different faction. Also *he* in the sentence is not a pronoun but a sound of smirking (*hehe*). Based on experience, Korea and U.S use *hehe* in a similar way.
9. 10/22 00:06:35.041 |Hchannel:Party|h[Party]|h Sutak: yes so if you come with hienma

10. 10/22 00:06:37.349 |Hchannel:Party|h[Party]|h Sutak: you can kill us

11. 10/22 00:06:41.571 |Hchannel:Party|h[Party]|h Sutak: lol

12. 10/22 00:06:45.760 |Hchannel:Party|h[Party]|h Detre: it's...

13. 10/22 00:06:50.162 |Hchannel:Party|h[Party]|h Detre: sounds..

14. 10/22 00:06:55.544 |Hchannel:Party|h[Party]|h Detre: good............

This conversation was the last of the conversation 10 series. As noted in the conversation, the participant and the researcher had previously quested in this region. This was not a new task for the participant, but in this case it could be considered a revision of previous tasks. In line 2, the participant used an adverbial phrase; *in this map* = preposition + NP. However, the first adverbial phrase was used in conversation 10-3 table-19.

Line 3: *I’m playing wow at my home.*

Specifically, it was the second time the participant used the adverbial phrase, but the first one used the preposition *at,* and this one used preposition *in.* Both of the adverbial phrases had been used in conversation 10; therefore, overall the adverbial phrase was first used twice in the same day. In line 5, the *there are* pattern was used; the same adverb of place *there* was used by the participant. In line 6, the participant first used the plural form *a lot of* properly.

---

138 As the participant and researcher advanced through the area with questing, the participant recognized other regions too.
139 Hienma was the participant’s Alliance character name.
140 line 12+13+14 = that sounds good.
Line 5 & line 6: *maybe there are a lot of draenei!!*

The participant has shown awareness of plural forms for the first time. In line 8, *here* went back to where it was supposed to be. In lines 12, 13, and 14 the participant said *it’s sounds good* and used ~s after *sound*, but it was grammatically wrong with the subject *it’s*. In this sense, the participant could have used *sounds* as a chunk.

In summary, the participant had shown grammatical development in this conversation. The following table contains the findings for conversation 10-6:

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 2, <em>in this map</em> → adverbial phrase</td>
<td>First usage of preposition <em>in</em></td>
</tr>
<tr>
<td>line 5, <em>maybe there are → ‘there are ~’ pattern</em></td>
<td>First usage of <em>there are~</em></td>
</tr>
<tr>
<td>line 6, <em>a lot of draenei → informal plural forms</em></td>
<td>First usage of plural forms</td>
</tr>
<tr>
<td>line 8, <em>I know here → Adverb of place</em></td>
<td><em>Here</em> used in the applicable place</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 2, <em>right? → adjective</em></td>
<td>Confirmation checks</td>
</tr>
<tr>
<td>line 5, <em>maybe → adverb</em></td>
<td>Expression of confidence level</td>
</tr>
<tr>
<td>line 7, <em>so → adverb</em></td>
<td>Expression of</td>
</tr>
</tbody>
</table>
The participant’s grammatical development increased noticeably in this conversation. The level of confidence, confirmation was expressed in the conversation (grammatical skill increased).

In the following conversation, the participant, Detre, wanted to share potions\textsuperscript{141} with the researcher, Sutak. However, Sutak rejected Detre’s offer.

Table 21-1. \textit{Conversation 11-1}

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 10/28 23:59:23.478</td>
<td>Detre says: i got six mana potion\textsuperscript{142}</td>
</tr>
<tr>
<td>2. 10/28 23:59:27.640</td>
<td>Sutak says: im okay</td>
</tr>
<tr>
<td>3. 10/28 23:59:30.332</td>
<td>Detre says: do u want this?\textsuperscript{143}</td>
</tr>
<tr>
<td>4. 10/28 23:59:30.629</td>
<td>Sutak says: you can sell them</td>
</tr>
<tr>
<td>5. 10/28 23:59:37.296</td>
<td>Detre says: how about sister..</td>
</tr>
<tr>
<td>6. 10/28 23:59:45.059</td>
<td>Sutak says: this is good\textsuperscript{144}</td>
</tr>
<tr>
<td>7. 10/29 00:00:03.950</td>
<td>Detre says: not good for me;;</td>
</tr>
</tbody>
</table>

Although the conversation was not long, the participant’s language structure had developed. In lines 1 and 3, the participant used interrogative sentences. Previously, the participant had trouble using the auxiliary verb \textit{do}, thus his questions were as below:

\textsuperscript{141} Low-level potions were considered as \textit{useless} items in \textit{World of Warcraft}. This implies that the participant’s game knowledge was still in the developmental stage.

\textsuperscript{142} Game terminology

\textsuperscript{143} Line 3 was not an answer to line 2, it was a continued sentence from line 1.

\textsuperscript{144} The effect of the potion was better than the researcher had imagined.
Conversation 10-3, line 5: *What we need?*

Conversation 10-3, line 12: *We need to make home here?*

Previously, the participant’s interrogative sentences started with *what*, and the word order was the same as with declarative sentences. He did not invert the subject and verb using the auxiliary verb *do*, and only used a question mark to indicate it as an interrogative sentence. However, in this conversation he used the auxiliary verb *do* for the first time. The auxiliary verb *do* had been used in prior conversations to make it into an interrogative sentence:

Conversation 6 line 9: *Don’t you know where is class trainer?*

Conversation 7 line 3: *Do you know where we can completed?*

However, at this period of research the participant used the auxiliary verb *do* as a chunk for *don’t you know~* and *do you know~* form. In line 5, the *how about~* pattern was used for the first time too. The function of this pattern was used to hold the leadership in the conversation. Considering this fact, the participant’s usage of the *how about~* pattern shown in line 11 could indicate that his communication skills had developed. Line 7, a new expression, *(It’s) not good for me* was used as a function to deliver his opinion to the researcher. Lines 6 and 7 correlated with each other, and the participant used a chunk to structure this sentence.

Conversation 11, line 6: *This is good.* (Researcher)

Conversation 11, line 7: *Not good for me.* (Participant)

The participant used *not* in front of *good* (input from researcher) and added a *for me* chunk to express his opinion. Specifically, the participant constantly had used these types of chunks to structure a sentence. The formula for this instance would be:
Not + good + for me

The participant used the researcher’s good and added chunks to make an expression. Thus far, the participant had structured most of his sentences in this approach rather than structuring the sentences grammatically. The participant’s strategy was in a parallel line with R. Ellis’s (2003) claim that grammar develops gradually as the learner experiments with adding various types of chunks together. Sentences are not constructed grammatically; rather, grammar emerges through structuring sentences through chunks. This is known as emergentism. The following are the findings of conversation 11-1:

Table 22-1. Findings in conversation 11-1

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 3, do you want this? → correct interrogative sentence word order</td>
<td>Used auxiliary verb do in interrogative sentence.</td>
</tr>
<tr>
<td>line 5, how about~ → prefabrication</td>
<td>First appearance</td>
</tr>
<tr>
<td>line 7, not good for me → continuum of chunk</td>
<td>Using chunks to structure sentences.</td>
</tr>
<tr>
<td>Function</td>
<td></td>
</tr>
<tr>
<td>line 5, how about~ → prefabrication</td>
<td>Suggestion</td>
</tr>
<tr>
<td>line 7, not good for me → continuum of chunk</td>
<td>Declare his intentions</td>
</tr>
<tr>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>New interrogative forms appeared.</td>
<td></td>
</tr>
<tr>
<td>Chunk’s role in structuring sentences.</td>
<td></td>
</tr>
<tr>
<td>Similar procedure with emergentism argument.</td>
<td></td>
</tr>
</tbody>
</table>
The following conversation between the participant, Detre, and researcher, Sutak, was related to a region named Rachet. Rachet is considered a neutral ground in *World of Warcraft*, and it is run by the goblins. In the latest patch of *World of Warcraft: Mist of Pandaria*, the Goblins joined the forces of Horde, but when Detre and Sutak played *WoW*, Goblins were a neutral faction. In a neutral faction region, Alliance and Horde share the quests and auction house, too. The storyline (lore) suggested that Goblins did business with both factions and used the advantage to prosper their race; thus money (gold) was always valued by Goblins. Therefore, if a player clicks the Goblin NPC, the most common thing you would hear is *Time is money my friend*. In the following conversation, the participant mimics the Goblin’s saying. It was possible to know how often the participant had heard this expression that he could identically use it again to others, this would be an interesting factor in language learning.

Table 21-2. *Conversation 11-2*

<table>
<thead>
<tr>
<th></th>
<th>Time Stamp</th>
<th>Channel</th>
<th>Action</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>10/29 01:25:46.094</td>
<td>Party</td>
<td>Detre</td>
<td>time is money my friend</td>
</tr>
<tr>
<td></td>
<td>'w'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>10/29 01:26:01.714</td>
<td>Party</td>
<td>Sutak</td>
<td>-_-;;;</td>
</tr>
<tr>
<td>3.</td>
<td>10/29 01:26:16.049</td>
<td>Party</td>
<td>Sutak</td>
<td>why do you say that?</td>
</tr>
<tr>
<td>4.</td>
<td>10/29 01:26:32.556</td>
<td>Party</td>
<td>Detre</td>
<td>in rachat</td>
</tr>
<tr>
<td>5.</td>
<td>10/29 01:26:35.513</td>
<td>Party</td>
<td>Sutak</td>
<td>yes</td>
</tr>
</tbody>
</table>

145 Spoken by a Goblin NPC; the participant was mimicking the NPC.
146 'w' Created by the participant, describes a look on a face. Does not have particular meaning.
147 -_-;;; Korean emoticon used in a nonsense situation, the researcher’s response to participant’s *time is money my friend*.
148 A region run by the Goblins
In this conversation, the participant experienced a new region named Rachet. In line 1, the participant suddenly says *time is money my friend* while waiting for the researcher to arrive at his location. This could be considered as private speech, because he imitated the NPC’s speech that he heard repeatedly.

In the conversation-9 series, the participant had shown private speech, and then in the conversation-10 series the participant’s language development had been described. In this sense, private speech could have a positive influence toward the learner’s language development. Mitchell and Myles (2004) explain Vygotsky’s (1986) idea of private speech as: “every time people confront new tasks, they go through private speech to learn how to approach to tasks”. As a consequence, private speech could be considered as a type of revision tool to practice the new task learners confront. In this conversation, the participant used an expression he heard many times in the new region Rachet. If this procedure repeats, automatically the expression *time is money my friend* would be memorized.

Another point I would like to emphasize in this conversation is the participant’s use of emoticons. In lines 1 and 7, the participant created an emoticon in order to express his feelings. Considering that the participant registered his feelings through language and emoticons, he understood the social norms of *World of Warcraft* very well. In this

---

149 =w=, created by the participant. Describes a look on a face, does not have particular meaning.
perspective, Ochs’s (1988) statement that in language socialization linguistic knowledge and socio-cultural knowledge are interdependently learned is evident.

In sum, the data of the participant indicates two aspects in language theory. First is socio-cultural theory’s private speech. Normally, private speech was considered in children’s language development, but the data suggests an adult learner could show private speech. Second is language socialization. Even though the purpose for many language learners is focused on language itself, it is inevitable that they will also learn the target language’s socio-cultural knowledge. In the case of the participant, he registered his own emoticons in the applicable situations. The following are the findings of conversation 11-2:

Table 22-2. Findings in conversation 11-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, <em>time is money my friend</em> → prefabrication</td>
<td>Private speech &amp; New task according to sociocultural theory</td>
</tr>
<tr>
<td>line 4, <em>rachet</em></td>
<td></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, 'w' → emoticon</td>
<td>Register based on language socialization</td>
</tr>
<tr>
<td>line 7, =w= → emoticon</td>
<td></td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td>Data supporting sociocultural theory and language socialization.</td>
</tr>
</tbody>
</table>
In the following conversation, the participant and researcher were discussing how to play the researcher’s character. The researcher was playing a paladin and wanted to change its specifications; however, he could not decide which specifications he wanted and asked the participant for his opinions. In the conversation, the researcher asked the participant about changing his talents into holy or protection. However, the researcher said that both of the talents would not able to make any damage. The interesting part was that the participant used the word *hit* in order to substitute the word *damage*, because he did not know the word *damage*.

Table 21-3. Conversation 11-3

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
<th>Channel</th>
<th>Chat</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/29 02:13:25.287</td>
<td>Party</td>
<td>Detre</td>
<td>protection[holy]?</td>
</tr>
<tr>
<td>2</td>
<td>10/29 02:13:30.127</td>
<td>Party</td>
<td>Detre</td>
<td>=w=;;</td>
</tr>
<tr>
<td>3</td>
<td>10/29 02:13:35.054</td>
<td>Party</td>
<td>Sutak</td>
<td>i'm talking about my talents</td>
</tr>
<tr>
<td>4</td>
<td>10/29 02:13:37.500</td>
<td>Party</td>
<td>Sutak</td>
<td>what do you think</td>
</tr>
<tr>
<td>5</td>
<td>10/29 02:13:47.291</td>
<td>Party</td>
<td>Detre</td>
<td>if u want to hit..</td>
</tr>
<tr>
<td>6</td>
<td>10/29 02:13:51.711</td>
<td>Party</td>
<td>Detre</td>
<td>u can take</td>
</tr>
<tr>
<td>7</td>
<td>10/29 02:13:54.726</td>
<td>Party</td>
<td>Detre</td>
<td>other one[holy]</td>
</tr>
<tr>
<td>8</td>
<td>10/29 02:13:56.224</td>
<td>Party</td>
<td>Sutak</td>
<td>i do want to hit</td>
</tr>
<tr>
<td>9</td>
<td>10/29 02:14:04.262</td>
<td>Party</td>
<td>Sutak</td>
<td>which one will be better?</td>
</tr>
</tbody>
</table>

\[150\] The researcher’s character was a paladin. A paladin has three specifications (specs) in its talent system: Protection (tanking), Retribution (melee damage), and Holy (healing).

\[151\] Game terminology

\[152\] Game terminology

\[153\] Other one identifies holy. Lines 6 and 7 are one sentence. You can take [the] other one is the full sentence. The participant indicated that if the researcher chose retribution as talent, rather than holy or protection, then he could focus on damage roll.
Wait.

10/29 02:14:17.021 |Hchannel:Party|h[Party]|h Detre: holy and protection is not for hit

A new task generated a new conversation. In line 1, the participant replied to the researcher’s choice of class talent. The participant asked which one the researcher had chosen. However he was using a one-word utterance. In line 9, the researcher used the which one phrase, but the participant did not know this expression and had to revert back to one-word utterances. The participant had shown a pattern to revert back to one-word utterances when he encountered a new task. In contrast, in lines 5, 6 and 7 the participant’s sentences were fluent. For the first time, the participant used the if subordinate clause, which means he created a complex sentence.

Line 5+6+7: If you want to hit, you can take [the] other one.

The participant had acquired a complex sentence like this, even though it appeared here for the first time. Expressions as input heard through many tasks, expressions as private speech practiced alone through playing computer, and so on, enabled the participant to acquire complex sentences like if + subordinating clause + main clause. The complex sentence above tells us more about the participant. For example, the participant used you as u, which was appropriately registered for an in-game chatting conversation. Additionally, substituting damage with hit was a positive aspect, because he was applying communication strategy very well.

154 The fact that the participant could provide information and suggest to the researcher about a different class in World of Warcraft implies his knowledge of the game had increased.
I would like to suggest that although the participant used a complex sentence, the function of the sentence was related to and limited within the game situation; thus it was still a pidgin. In the future, if the participant could apply the complex sentence in multiple functions of conversation, then we could conclude he had acquired the language of building a complex sentence\textsuperscript{155}. Then we could state that the participant’s language status has moved to creole. Let’s observe line 10:

\emph{Holy and protection is[are] not for hit.}

In this sentence, the participant used a preposition \emph{for} with the function of stating a purpose. Up to this point the participant used \emph{for} only twice in this game.

1) Conversation 10-1 line 2: \emph{for what?}
2) Conversation 11-1 line 7: \emph{not good for me}

Usage of \emph{for} in example 1 was the same as that of \emph{for} in conversation 11-3. However, \emph{for} in example 1 was used without a full sentence. On the other hand, line 10 \emph{for} in this conversation was used with a full sentence, which means the participant develops grammatical ability about \emph{for}. Considering line 10 in this conversation, the participant’s sense of plurality did not work properly.

In summary, the participant had shown patterns of reverting back to one-word utterances when engaging with new tasks. Additionally, he expressed a full sentence based on his knowledge of acquired language that indicated his language development was occurring gradually.

Table 22-3. \emph{Findings in Conversation 11-3}

\textsuperscript{155} Acquisition of language forms could be concluded when the language form has been applied into multiple situations.
<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Remarks</td>
</tr>
<tr>
<td>line 1, protection, holy → one-word utterance</td>
<td>New task</td>
</tr>
<tr>
<td>line 5, 6, and 7 → If u want to hit, u can take other one.</td>
<td>First appearance of complex sentence</td>
</tr>
<tr>
<td>line 10, holy and protection is not for me. → ‘for’ + purpose</td>
<td>First usage of <em>for</em> + <em>purpose</em> as a full sentence</td>
</tr>
<tr>
<td>Function</td>
<td>Remarks</td>
</tr>
<tr>
<td>line 5, 6, and 7 → Complex sentence with <em>if</em></td>
<td>Game-related function</td>
</tr>
<tr>
<td>line 10 → <em>for</em> + purpose</td>
<td>Game-related function</td>
</tr>
<tr>
<td>Significance</td>
<td>Remarks</td>
</tr>
<tr>
<td>The participant shows his language development, such as use of a complex sentence with <em>if</em> and the use of the preposition <em>for</em> with a full sentence. If these language forms could be applied in multiple situations, then they are entitled to be called as natural language, which proceeds from pidgin to creole. Thus, possibility of pidgin developing to creole.</td>
<td></td>
</tr>
</tbody>
</table>

### 4.5 The fifth stage: producing sentences (grammar emerging)

The fifth stage is basically the same with the fourth stage. However the main difference is grammar. While grammatical errors were often made in the fourth stage, the fifth stage
showed that creative sentences were constructed, which means most of those were grammatically right.

4.5.1 Grammatically developed combinations period

In this period, the participant was noticing R-chunks which were parts of G-routines. He generated many sentences with the use of R-chunks (see, Table 23). In Table 25, he used a grammatical structure, ‘not A but B’. In Table 27-1, he knew how to construct discourse and how to do paraphrasing and consequently took communicating initiative. In Table 27-2, he intensified his intention through discourse.

Two months had passed since the last conversation (11-3). The participant’s interest in language had increased significantly but was limited to game-related language. The English proficiency of the participant was in his mid-stage. The knowledge of the game was also in the mid-stage but was very knowledgeable for his character’s level. The conversation was about the participant’s profession, skinning; he was very happy that the skinned items sold very well in the auction house.

Table 23. Conversation 12

| 1. 12/19 02:44:52.686 Detre says: you got 2 blue items¹⁵⁶ this morning..¹⁵⁷ |

¹⁵⁶ Color of the item indicates the quality of the item. Gray < white < green < blue < purple < orange. Generally, white and gray are considered as worthless items, green is known to be suitable for leveling, and blue items could be obtained to group quests or running dungeons. Heroic dungeons and raids will provide purple items, and orange items can be obtained through hard mode raids, with completing specific quests lines, and are considered as very rare items.

¹⁵⁷ The researcher indicated that his character seemed to be stronger in line 1. This is because blue items are better quality items.
2. 12/19 02:45:01.119 Sutak says: so?
3. 12/19 02:45:02.772 Detre says: maybe, that's why—
4. 12/19 02:45:08.150 Sutak says: ....but this is quest item
5. 12/19 02:45:11.537 Sutak says: it's different
6. 12/19 02:45:21.722 Detre says: you used all of your lucky this morning\textsuperscript{158}
7. 12/19 02:45:23.982 Detre says: ......\textsuperscript{159}
8. 12/19 02:45:26.459 Sutak says: or maybe that's when we get good items.... around 11am everyday
9. 12/19 02:45:28.750 Sutak says: ...
10. 12/19 02:45:51.677 Sutak says: it's not luck it's....destiny
11. 12/19 02:45:59.738 Detre says: ....no way...=w=
12. 12/19 02:46:05.965 Sutak says: -_-\textsuperscript{160}
13. 12/19 02:46:07.607 Sutak says: luck?
14. 12/19 02:46:10.772 Detre says: yap
15. 12/19 02:46:15.026 Sutak says: T__T\textsuperscript{161}
16. 12/19 02:46:24.748 Sutak says: :(\textsuperscript{162}
17. 12/19 02:46:44.104 Sutak says: no items...they should give me... quest items
18. 12/19 02:47:17.858 Detre says: i wanna check my mail\textsuperscript{163}.

\textsuperscript{158} The participant was teasing the researcher that since he already obtained blue items, his luck has expired and he cannot get more items.
\textsuperscript{159} ..... indicated silences, the researcher does the same in line 9.
\textsuperscript{160} -_- means confusion in this situation.
\textsuperscript{161} Korean-style emoticon and means crying
\textsuperscript{162} U.S. style emoticon and means sadness.
19. 12/19 02:48:12.267 |Hchannel:Guild|h[Guild]|h Sutak: this is getting really boring
20. 12/19 02:48:32.050 |Hchannel:Guild|h[Guild]|h Detre: well..i don't think so-
21. 12/19 02:48:50.439 |Hchannel:Guild|h[Guild]|h Detre: i'm enjoying skinning lol
22. 12/19 02:48:55.787 |Hchannel:Guild|h[Guild]|h Sutak: ....
23. 12/19 02:49:03.991 |Hchannel:Guild|h[Guild]|h Sutak: well mining here is pretty good
24. 12/19 02:49:08.485 |Hchannel:Guild|h[Guild]|h Detre: almost of them can be skinned
25. 12/19 02:49:27.791 |Hchannel:Guild|h[Guild]|h Sutak: the mining i get here i dont need to smelt but need to sell
26. 12/19 02:49:45.282 |Hchannel:Guild|h[Guild]|h Detre: and it's too expensive
27. 12/19 02:49:45.713 |Hchannel:Guild|h[Guild]|h Sutak: and it sells pretty good
28. 12/19 02:49:54.489 |Hchannel:Guild|h[Guild]|h Sutak: it's sells pretty expensively..
29. 12/19 02:49:59.272 |Hchannel:Guild|h[Guild]|h Sutak: good..lol
30. 12/19 02:50:15.785 |Hchannel:Guild|h[Guild]|h Detre: and my skinning also
31. 12/19 02:50:17.879 |Hchannel:Guild|h[Guild]|h Detre: not bad
32. 12/19 02:53:45.571 |Hchannel:Guild|h[Guild]|h Sutak: i like the shrinking effect
33. 12/19 02:53:48.743 |Hchannel:Guild|h[Guild]|h Detre: i'm skelton
34. 12/19 02:53:50.598 |Hchannel:Guild|h[Guild]|h Sutak: rather than that one

163 The *World of Warcraft* game system provides players with a mail system. It can be used to write mail to other players or if one buys an item off of auction house, the item will be delivered through the mail.
164 U.S. style emoticon and means laughing (laughing out loud)
165 The mining ores were expensive in that specific area.
166 The skinned leather in this specific area was expensive.
167 The content suddenly changed, but this is considered normal in gaming situations.
168 The participant shape-shifted into a skeleton form.
The conversation became lengthy compared to previous conversations. It was the first time in the research where the participant interacted for a long period of time. However, the content was not as rich as anticipated and was limited to game related context, but the function of this conversation is worth mentioning because of a variety of new functions, such as teasing, agreeing, disagreeing, complaining, etc., were introduced in this conversation.

The conversation contains the participant's professions: leatherworking and skinning. In lines 1, 3 and 6, the participant expresses astonishment at the researcher’s blue items. The participant's language form in lines 1, 3, and 6 was a full sentence:

1) Line 1: *you got 2 blue items this morning.*

2) Line 3+6: *maybe, that's why you used all of your lucky this morning.*

The participant’s full sentence was noticed in the previous conversation 11-3, but in conversation 12 his full sentence was noticed in multiple situations. In line 1, the participant used the *this morning* chunk for the first time. The verb *got* in the same line was not surprising because he had used it previously. *Blue items*, would be a new word.

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169 The researcher favors the shrinking effect over the skeleton form effect.
170 After killing the monster, the participant complained that the monsters cannot be skinned.
171 Blue items in *World of Warcraft* are considered rare items. Before reaching the max level in *World of Warcraft*, blue items will recognize as very good items.
acquired by the participant, because it related with the context in this conversation. This
description could be described as below:

1) Line 1:

\[
\text{you got} \quad \text{2 blue items} \quad \text{this morning}
\]

(Previously used) (New word from this conversation task) (Previously known chunk)

This sentence has been structured through chunks. In the following example 2, the
participant used \textit{maybe}^{172}, and this has been already used six times. The \textit{that’s why}
language form appeared for the first time, and it was considered as a chunk/prefabrication.
The \textit{used} verb made its first appearance, too. However, the verb \textit{used} was related with the
gaming situation; thus it was possible to assume that he heard this language form in the
game multiple times. The following language form, \textit{all of~}, was also prefabrication
because it was spoken for the first time by the participant\textsuperscript{173}. \textit{Lucky} should be used as
\textit{luck}, but the participant was familiar with \textit{lucky}; thus it was used in the sentence and
generated an error. The word \textit{lucky} was also learned in the game. Sentence 2 was
structured as a chunk, too:

2) Line 3+6:

\[
\text{Maybe that’s why you used all of your lucky this morning}
\]

chunk chunk game related Chunk+game related chunk

\textsuperscript{172} Conversation 5, line 15, conversation 9-2, lines 7 and 11, conversation 10-4, line 6, conversation 5, line 13, and conversation 10-6, line 5.

\textsuperscript{173} At this period of research, the participant was not interested in learning the English language. Therefore the new expression he used in the this period of time has to be learned from prefabrication, not from a grammatical context.
From the above two sentences, the participant’s language development has been explained. Another development was his functional use of language forms such as *teasing*. And the most amazing development was discourse competence. In lines 1 + 3 + 6, he made a statement with two utterances, which he had never produced as one turn before conversation 12. The participant had shown discourse competence in line 1 and lines 3 and 6. Thus far, the participant had not said more than one sentence structure, but in this conversation he has spoken a discourse. In line 11, the participant had shown denial; *no way*. Thus far, the participant used denial forms five times.

3) Conversation 5, line 9: *no*
4) Conversation 9-5, line 5: *I can’t see yours.*
5) Conversation 10-1, line 3: *I can’t believe I’m playing wow at my home.*
6) Conversation 11, line 7: *not good for me*
7) Conversation 11-3, line 10: *holy and protection is not for me.*

In this conversation, he used a strong denial form, *no way*. This conversation was recorded after two months. The two-month gap seemed to make the participant use certain language forms such as *no way* and *yap*, which will be described as below. In line 14, he used the affirmative form *yap*. The participant had only used an affirmative form three times.

8) Conversation 5, line 20: *yeah*
9) Conversation 9-2, line 7: *yeah*
10) Conversation 10-4, line 5: *yes*

However, in this conversation the participant used an informal affirmative form, *yap*. An affirmative form, *yap*, or the denial form, *no way*, indicate the participant’s
confidence level in the conversation. His development in game knowledge was noticeable, and that transferred to development in language forms related to the game knowledge. In line 18, a new pattern sentence appeared, but it had an interesting function:

11) Line 18: *i wanna check my mail.*

The participant used the verb *want* once (conversation 11-3, line 5) so far; however, in this conversation he suddenly used the informal form of *want to* as *wanna.* Supposedly, he learned the expression from other players’ interactions. The word *check* (conversation 3, line 7) was also previously noted. *Mail* was part of the game system; therefore, he already knew it. The 11) sentence was a full sentence, and *wanna* was an abbreviated form of *want to,* but the participant had no recognition of the fact. He used it because he observed other players using the language form. The 11) sentence itself had to be prefabrication (routine) as a whole, because *World of Warcraft*’s mail system enforced the players to use this sentence multiple times during conversations, and the participant used it as if it was a single word. In lines 20 and 21, the participant spoke two sentences in a sequence. The participant's discourse competence could be noticed. The function of the discourse indicated the reason the participant denied the researcher's opinion.

12) Line 20: *well, I don’t think so.*

13) Line 21: *I’m enjoying skinning.*

*Well* in 12) was used once before in conversation 10-4, line 2. The denial expression *I don’t think so* was spoken for the first time. This could be noted as prefabrication, because new expressions that were used for the first time had to be learned from observation of other players.
This procedure of the participant has an implication for foreign-language classrooms. The participant thus far in the research was focused on gaming; his interested was not in learning language. Nevertheless, his language ability gradually developed. He did not have a teacher, but it was surprising that his language developed over period of time. This is similar to children’s language development, where children develop their L1 without a specific teacher. I suggest that in the future, foreign-language classrooms need to be in a natural setting. As noted in Chapter 2, albeit Krashen’s criticism, his argument about the importance of naturalness could be essential.

Significance in 12) was I don’t think so, because it could be used in general speaking situations. As noted previously, if the game-related expression could transfer to general settings, this could be noted as development from pidgin toward creole.

13) was also a new expression, the structure of the sentence was be + V ~ing, and thus far was observed three times.

14) Conversation 10-1, line 3: I can’t believe I’m playing wow at my home.

15) Conversation 10-3, line 11: there is flying.

16) Conversation 11, line 3: I’m talking.

In the three conversations above, we can see progressive patterns “be + V~ing.” Though he used the progressive patterns successfully, it was not certain that the participant knew the meaning of progressiveness. It seems he took the progressive structures as prefabricated patterns that he often heard and noticed from other players. Considering his grammatical ability at this time, we cannot conclude that he made sentences using grammar. The participant changed the enjoy into a present progressive form and used it to deny the researcher’s opinion that it was not boring because he
enjoyed skinning at this moment. In a function-oriented perspective, 13) has potential to convert the game related expressions into a general speaking situation. The reason was that the structure *I’m enjoying~* can be used in a variety of other situations such as: I’m enjoying movies, I’m enjoying food, I’m enjoying reading, etc.

In a sense, this change was very similar to the developmental process from pidgin to creole. Sociolinguistically, pidgin was only used for a trading function. When it needs to be spoken for other functions such as greeting, complimenting, liking, caring, etc., pidgin had to expand its vocabulary and grammar into creole. Simply speaking, pidgin has one function and creole has many functions.

Let’s use these concepts in the *WoW* situation. When he uttered *I’m enjoying skinning*, he expressed his denial of the researcher’s opinion. Suppose he wanted to express different functions from the denial function with the structure *I’m enjoying~*. If someone asks the participant, *What are you doing?*, the participant might say, I’m *enjoying watching TV*. This can be a description function of his situation. So if the structure *I’m enjoying~* was used only for one function (e.g. denial), it could be called pidgin. On the other hand, if the structure was used more than one function (e.g. denial and description) it could be creole.

In line 24, the participant first used a passive voice:

17) Line 24: almost [most] of them can be skinned.

In line 24, two things will be described. The first is *almost of them*. The *almost of them* expression was applied from line 6, *all of your lucky*. Although he committed an grammatical error, the participant tried to test his hypothesis. He used the previously learned *all of~* pattern and applied it into *Almost of~* pattern. H. D. Brown (2007a) stated:
… the child’s language at any stage is systematic in that the child is constantly forming hypotheses on the basis of the input received and then testing those hypotheses in speech (and comprehension). (p. 29)

The participant had shown a similar attempt with Brown’s statement. In this sentence, the participant for the first time has shown a generalization with grammar rules. The second phrase is ~be skinned. There had been no evidence of how the participant learned the passive voice. A possible explanation could be that the participant placed the word he wanted to emphasize in the front of the sentence as a subject. In order to inform the researcher of new information, he used most of them instead of I. However, it cannot be concluded that the participant thought about building a passive voice sentence; rather, he engaged in multiple interactions in the game and subconsciously learned this 17) sentence. In other words, he might learn the passive voice as prefabrication. Nonetheless, the participant’s dialogue began to present more complex grammatical structure, which was part of his language development.

Now let’s observe the adverb too in his utterance. The following is an analysis of line 26:

18) Line 26: it’s too expensive.

Rundell and Fox (2002) described the use of too as below:

Too is used in the following ways:

As an ordinary adverb (before an adjective or adverb) or before “much,” “many,” “few,” etc.: You’re too young to understand politics. [too + adjective/adverb/determiner]

As a way of showing how a sentence, clause, or phrase is related to what has just been said: “We’re going to the park.” “Can I come too?” [at the end of a sentence, also]. (p. 1491)
The participant used *too* at the end of a sentence in conversation 2, line 2, but it was his first time using it as *too*+ adjective. Of course, it was possible that the participant knew how to use *too* as *too* + adjective before playing *World of Warcraft*, but this is only a guess. In any case, the participant used *too* as *too* + adjective after six months of gameplay. It could only be possible interpret his use of *too* as brilliant language development. Another observation in line 26 was also interesting. *It’s too expensive* was a sentence pattern *S+V+C*. It was one of the easiest patterns, considering types of sentence patterns.

The structure *S+V+C* was only observed twice during the research:

19) Conversation 10-2, line 13: *it’s interesting.*

20) Conversation 11, line 7: *[It’s] not good for me.*

We do not know why he did not use the easy pattern (*S+V+C*) more often. It was only surprising to find the pattern at this moment of research. Let’s look at the following utterances. They were all *S+V+C* forms.

21) 30+31: *and my skinning [is] also not bad*

22) 33: *I’m skeleton*

23) 36: *[they are] useless monster[s]*

24) 38: *[they are] really useless*

It might be said that *S+V+C* pattern is not a significant factor in a language-form perspective. But it is true that the participant showed his language development. In a function perspective, his use of *S+V+C* was brilliant. Let’s go back to conversation 12. The conversation contains the researcher and participant discussing their professions (mining and skinning). The participant was teasing the researcher's mining profession in *S+V+C* forms. The point is that the use of a simple structure had a great effect on the
researcher. This was the participant's pride. That is, he was successfully able to develop not only his grammatical ability but also his communication skills.

There is one more thing to describe about conversation 12: the participant’s awareness of the plural form. In line 1, the participant used a plural form 2 blue items correctly. It was a huge development because he had not used a plural form until that time. However, when we see line 33 and line 35, the participant referred to skeleton as a plural form they. In this respect, he began to raise awareness of the plural forms, but it was not applied in various situations.

Before summarization, sudden language development of the participant in this conversation should be considered. How did the participant’s language develop substantially? Thus far, the participant had focused on gaming itself, but as his knowledge of the game increased he was able to observe and participate with other players’ interactions. This procedure leads to increasing his language functions. In order for the participant to apply multiple language functions in various situations, he needed more language structures. The language structures could be previous knowledge of language or observed language from other interactions.

Another consideration can be added for his sudden language development. Considering the attributes of World of Warcraft, there was a potential for language development. It has previously been noted that the World of Warcraft setting provided a natural language-learning environment. Since multiple tasks were engaged with the participant with repeated language functions, the participant could have subconsciously learned and practiced relevant language forms. Additionally, at the beginning stage of the
game, the participant normally played alone. Fortunately, the participant practiced Vygotsky's notion of private speech that lead to helping his language development.

In sum, conversation 12 contains multiple new language expressions. They were also observed in full sentence forms. Full sentence forms were on not only new structures, but also various functions.

Another finding was enhancement of his discourse competence. At the beginning, the participant’s language forms were produced in one-word or two-word utterances, but in this conversation they became full sentences, and these full sentences became a discourse. This procedure seems to imply the movement from pidgin to creole. Whenever he needed more functions, the participant had to bring more language to fulfill those functions.

Specifically, his social life in the game had changed. In the beginning, the participant focused on how to play the game. It was enough for him to need only one function to complete his first-stage game. As time went by, he faced more tasks in which more functions were needed. That’s why he could develop his English language.

The last thing to mention in this conversation is that language expressions relied heavily on prefabrication. But, as in conversation 12, an attempt of testing this hypothesis was also observed even though such an attempt was a small part of constructing sentences. Thus, it was possible to observe the participant applying grammar knowledge to structure a sentence. The following contains findings in conversation 12:

Table 24. Findings in conversation 12

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Form</th>
<th>line 1 → full sentence</th>
<th>Prefabrication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>line 1+3+6 → two full sentences</td>
<td>Began to use discourse</td>
</tr>
<tr>
<td></td>
<td>line 3+6 → full sentence</td>
<td>First appearance of <em>all of</em>~</td>
</tr>
<tr>
<td></td>
<td>line 11 → <em>no way</em></td>
<td>First appearance of <em>no way</em></td>
</tr>
<tr>
<td></td>
<td>line 14 → <em>yap</em></td>
<td>First appearance of <em>yap</em></td>
</tr>
<tr>
<td></td>
<td>line 18 → <em>wanna</em></td>
<td>First appearance of <em>want to ~ informal form</em></td>
</tr>
<tr>
<td></td>
<td>line 18 → full sentence</td>
<td>Game routine</td>
</tr>
<tr>
<td></td>
<td>line 20+21 → two full sentences</td>
<td>Another use of Discourse</td>
</tr>
<tr>
<td></td>
<td>line 24 → full sentence</td>
<td>First appearance of passive voice</td>
</tr>
<tr>
<td></td>
<td>line 24 → ‘almost of them’</td>
<td>Attempt of Testing hypothesis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>line 1+3+6 → two full sentences</th>
<th>Denial of other’s opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>line 11 → denial</td>
<td>Strong denial</td>
</tr>
<tr>
<td></td>
<td>line 14 → informal expression</td>
<td>Answering with confidence</td>
</tr>
<tr>
<td></td>
<td>line 20+21 → two full sentences</td>
<td>Denial through self-comparison</td>
</tr>
<tr>
<td></td>
<td>line 24 → full sentence</td>
<td>Suggestion to other</td>
</tr>
<tr>
<td></td>
<td>line 26 → S+V+</td>
<td>Cannot agree with other’s opinion</td>
</tr>
<tr>
<td></td>
<td>line 30+31 → S+V+C</td>
<td>Bragging to other</td>
</tr>
<tr>
<td></td>
<td>line 35 → S+V+C passive voice negative sentence</td>
<td>Addressing the weakness to other</td>
</tr>
<tr>
<td></td>
<td>line 36 → S+V deleted form in S+V+C of the</td>
<td>Addressing the weakness to other</td>
</tr>
</tbody>
</table>
In conversation 12, the participant had shown substantial amount of language development. The following conversation took place the day after. The participant, Detre, and the researcher, Sutak, were playing as Horde, and Detre was a rogue and Sutak was a paladin. The conversation contains context about running dungeons. At the beginning stage of research, neither the researcher nor the participant were knowledgeable enough to run dungeons. However, as the game knowledge increased, they decided to run the dungeon for the first time. They were excited to loot rare items and asked each other about the items they were expecting. The participant replied that he wanted a mace weapon, but the researcher asked if rogues were capable of holding maces.\footnote{Rogues can use swords, daggers, maces and fist weapons. However they cannot use wands, bows (in current patch), pole-arms.}
Table 25. *Conversation 13*

<table>
<thead>
<tr>
<th></th>
<th>12/20 02:49:31.559</th>
<th>Hchannel: Party</th>
<th>h[Party]</th>
<th>h Sutak: finally......dungeon...i hope we loot many blue items....:)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12/20 02:49:44.941</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Detre: i wanna a mace or a 1H sword(^{175})!!</td>
</tr>
<tr>
<td>3</td>
<td>12/20 02:49:57.657</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: so no dagger for you?</td>
</tr>
<tr>
<td>4</td>
<td>12/20 02:50:05.871</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: rogue without a dagger?</td>
</tr>
<tr>
<td>5</td>
<td>12/20 02:50:18.450</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Detre: hmm..if it's better than my one, i don't care..</td>
</tr>
<tr>
<td>6</td>
<td>12/20 02:50:29.859</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: hmmm</td>
</tr>
<tr>
<td>7</td>
<td>12/20 02:50:33.604</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Detre: but i wanna not a dagger=(w=).</td>
</tr>
<tr>
<td>8</td>
<td>12/20 02:50:53.307</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: but you don't want a dagger?</td>
</tr>
<tr>
<td>9</td>
<td>12/20 02:51:06.943</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Detre: mace...;(w;)</td>
</tr>
<tr>
<td>10</td>
<td>12/20 02:51:36.710</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: ah you wanna mace not dagger</td>
</tr>
<tr>
<td>11</td>
<td>12/20 02:51:38.907</td>
<td>Hchannel: Guild</td>
<td>h[Guild]</td>
<td>h Sutak: not..dagger</td>
</tr>
</tbody>
</table>

Compared to conversation 12, conversation 13 was relatively short, because in this context the participant only expressed the expectations of the dungeon run. In line 1, the researcher said he wanted more blue items, and in line 2 the participant replied that he wanted a mace.

\(^{175}\) 1H = one hand sword, 2H= Two hand sword
1) Line 2: *I wanna a mace or a 1H sword.*

The *wanna* expression noted back in conversation 12 appeared again. As far as the same form appears more than one time, we can say that the form *wanna* had been acquired. The second finding was that two new game terminologies were introduced in this conversation. With the two terminologies, the participant was expected to learn new language forms. Some people might wonder how the two terminologies were a cause to learn new language forms. Terminology reflects the culture of *World of Warcraft*. Let’s draw an analogy between a game terminology and a refrigerator, which reflects the culture of summer. If you get to know a refrigerator, you automatically learn many relevant language forms such as *a machine that keeps food and drinks cold, refrigerate the dough overnight*, etc. Technically speaking, you will learn routines relevant to a refrigerator. That’s why game terminologies are called *culture nouns* in this research.

The third finding related to *or*. In 1), *or* was used for the first time, and the conjunction *or* has the function of comparing. The participant did not use *or* so far because he did not need to compare anything, but the dungeon items gave him the opportunity to compare. The environment had provided the learner with a situation where he was not forced to use the conjunction *or*, but rather naturally had to use the conjunction in order to conduct the conversation. The researcher asked the participant why he did not want the dagger or 1H sword in line 3 and 4. In line 5 the participant firmly expressed his need of the item.

2) Line 5: *If it’s better than my one, I don’t care.*
The fourth finding was the *if* subordinate conjunction, which appeared in conversation 11-3. As mentioned above, language forms used more than once were considered as acquired.

3) Conversation 11-3, line 5: *if you want to hit, you can take other one.*

The fifth finding in 2) was that *if* of 2) is functionally different from *if* of 3) in conversation 11-3. 2) and 3) shared the same language structure, but the functions were different. Function in 2) was *if the conditions were met*, and in 3) *if it was desired*. The participant had acquired this language structure, because he used it in different situations with different functions.

Another language function to observe was *better than*, which was the sixth finding. This language form was used for the first time; previously the participant used the *more* form three times.

4) Conversation 5, line 17: *once more*

5) Conversation 10-4, line 12: *go back, and try one more*

6) Conversation 10-5, line 9: *more fast*

4) and 5) did not require the use of *than*, but in 6) *than* should have been used. However, at the conversation 10-5 time period, the participant did not know the use of *than*, and thus could not have used it. Therefore, in a language form perspective, the participant used the comparative form for the first time.

Now let’s observe the pronoun *one* in 5). Pronouns are generally used when one wants to avoid using the same noun repeatedly. The participant used this language form for the first time. However, grammatically the participant should have used *mine* instead of *my one*. This was an example of mistaking the usage of this L2 grammatical
knowledge. In this sequence, the participant did the testing hypothesis once again.

Previously in conversation 12, there was an attempt of the participant using the testing hypotheses.

The seventh finding was that of *I don’t care* in 5). *I don’t care* was used for the first time by the participant. However, this type of prefabrication could be observed not only in game settings but in his normal social life. The point was that the participant’s language ability was improved enough to use *I don’t care* productively\(^{176}\).

7) Line 7+9: *but I wanna not a dagger [but] a mace.*

In 7), the participant used the language form *not A but B*, which was the eighth finding. Although *but* was excluded in 7), it was possible to assume that he was almost ready to use the *not A but B* form correctly.

In summary, the participant continued to use full sentences in spite of the short conversation. The significant part was that the participant continued to use new language forms when he constructed full sentences. The following are the findings in conversation 13.

Table 26. *Findings in conversation 13*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 2 $\rightarrow$ <em>mace or 1H sword</em></td>
<td>New game terminology</td>
</tr>
<tr>
<td>line 2 $\rightarrow$ <em>or</em> $\rightarrow$ conjunction</td>
<td>New language form</td>
</tr>
<tr>
<td>line 5 $\rightarrow$ <em>if</em> subordinate conjunction</td>
<td>Second use</td>
</tr>
</tbody>
</table>

\(^{176}\) here and there, in multiple situations.
<table>
<thead>
<tr>
<th>Line</th>
<th>Language Feature</th>
<th>Function</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><em>or</em></td>
<td></td>
<td>Comparison</td>
</tr>
<tr>
<td>5</td>
<td><em>if~</em></td>
<td>subordinate conjunction</td>
<td>If the conditions were met</td>
</tr>
<tr>
<td>5</td>
<td><em>I don’t care</em></td>
<td></td>
<td>Acceptance</td>
</tr>
<tr>
<td>7+9</td>
<td><em>not A [but] B</em></td>
<td></td>
<td>Emphasizing</td>
</tr>
</tbody>
</table>

**Significance**

Appearance of new game terminologies was predicted to have a new conversation and new language forms for better conversation. For example, conjunction for comparison *or*, conjunction for condition *if*, and *not A but B* were new language forms in this conversation.

The new language forms carried their own functions, helping him to continue to talk.

A continuum of movement from pidgin to creole.

In the following conversation, the participant had invited a friend (Ksoo) from Korea to play with him. The participant was a blood elf rogue, Ksoo was a tauren warrior, and both of them were playing as horde. The participant’s game knowledge did not increase since the last conversation but was comfortable enough to share the knowledge with a new gamer. However, Ksoo had played the Korean edition of *World of Warcraft* before and had a little more game knowledge than the participant. Ksoo’s language knowledge was intermediate; he was 30 years old, had graduated college, and was working at the time of research. Ksoo’s overall English was better than that of the
participant. Ksoo chose tauren to play, which looks like a giant cow. The participant was surprised by the appearance of Ksoo’s character.

Table 27-1. *Conversation 14-1*

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/21 05:01:55.949</td>
<td>Detre says: hello~</td>
</tr>
<tr>
<td>2</td>
<td>12/21 05:02:04.315</td>
<td>Ksoo says: hi~</td>
</tr>
<tr>
<td>3</td>
<td>12/21 05:02:12.147</td>
<td>Detre says: u r a cow(^{177})...</td>
</tr>
<tr>
<td>4</td>
<td>12/21 05:02:16.702</td>
<td>Detre says: ... (...)</td>
</tr>
<tr>
<td>5</td>
<td>12/21 05:02:31.828</td>
<td>Detre says: looks too...s....t.........(^{178}).</td>
</tr>
<tr>
<td>6</td>
<td>12/21 05:02:31.910</td>
<td>Ksoo says: i'm very big~</td>
</tr>
<tr>
<td>7</td>
<td>12/21 05:02:38.362</td>
<td>Detre says: u......</td>
</tr>
<tr>
<td>8</td>
<td>12/21 05:02:40.729</td>
<td>Ksoo says: :)(^{179})</td>
</tr>
<tr>
<td>9</td>
<td>12/21 05:02:46.149</td>
<td>Detre says: hmm, i'll cut here(^{180})</td>
</tr>
<tr>
<td>10</td>
<td>12/21 05:02:47.223</td>
<td>Detre says: ...</td>
</tr>
<tr>
<td>11</td>
<td>12/21 05:03:07.836</td>
<td>Ksoo says: i'm not understand(^{181})~</td>
</tr>
<tr>
<td>12</td>
<td>12/21 05:03:16.582</td>
<td>Detre says: u can keep going(^{182})</td>
</tr>
<tr>
<td>13</td>
<td>12/21 05:03:22.112</td>
<td>Ksoo says: -_-(^{183})</td>
</tr>
</tbody>
</table>

The participant was speechless because of the size of Ksoo’s character. In lines 3, 4, and 5, the participant explained why he was surprised.

---

\(^{177}\) Tauren race looks like a cow; Ksoo was tauren.

\(^{178}\) The participant knew the word *strong*, and he wanted show a lingering feeling by using part of the word *Strong*.

\(^{179}\) A U.S.-based smiley emoticon. Ksoo used U.S. emoticons from the beginning of his play.

\(^{180}\) It means that the participant wanted to stop playing.

\(^{181}\) Ksoo did not understand that *cut* could mean stop in this situation.

\(^{182}\) *Keep going* was used by the researcher multiple times and the participant began to use this expression.

\(^{183}\) Ksoo expressed a dazed look as in Korean style emoticon.
1) Line 3+4+5: u r a cow. ... [it] looks too s... t... (strong).

The participant used discourse beyond a full sentence while he was talking. This was the first finding in which he often used discourse. The participant was trying to say that Ksoo’s character looked very huge, but moderated the expression to strong. Another feature that the participant described was the register. He utilized symbolic forms that existed in gaming or chatting settings.

2) u → you, r → are, s...t... → strong

The participant seemed to be completely immersed within the *World of Warcraft* community, considering that he was comfortable with the language required in the community. This was the second finding in which the participant tried to be a member of the *WoW* society. That’s why he learned popular symbolic forms in gaming or chatting settings.

The third finding was *paraphrasing*. In line 9, the participant indicated that he wanted to stop playing, but in line 10 Ksoo asked for clarification. The participant paraphrased in line 12.

3) I’ll cut here. → u can keep going.

The participant’s language knowledge was comfortable enough to paraphrase for other people. Previously it was noted that Ksoo’s English and game knowledge were slightly better than the participant. However, in this conversation the participant was holding the communicating initiative, and in line 13 Ksoo cannot continue his words. That was the fifth finding.

In sum, the participant was using discourse appropriately and also paraphrasing, and that implies his development thus far. The initiative of communication that the
participant held was because he was in this *World of Warcraft* community longer than Ksoo. The following are the findings in conversation 14-1.

Table 28-1. *Findings in conversation 14-1*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 3, <em>u r a cow</em> → register</td>
<td>Member of the <em>WoW</em> community</td>
</tr>
<tr>
<td>line 5, <em>[it] looks too s...to...</em> → register</td>
<td>Member of the <em>WoW</em> community</td>
</tr>
<tr>
<td>line 3+4+5 → usage of discourse</td>
<td>Discourse competence increased</td>
</tr>
<tr>
<td>line 9 to line 12 → re-explaining</td>
<td>Paraphrasing</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 3+4+5 → usage of discourse</td>
<td>Indicate astonishment</td>
</tr>
<tr>
<td>line 9 to line 12 → re-explaining</td>
<td>Explaining to other</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>The discourse competence was continuously increasing.</td>
<td></td>
</tr>
<tr>
<td>Specific language used in <em>World of Warcraft</em> was accepted and used by the participant.</td>
<td></td>
</tr>
<tr>
<td>Language skills developed enough to paraphrase to others for better understanding.</td>
<td></td>
</tr>
<tr>
<td>Even though language competence was lower than Ksoo, the participant was holding the communicative initiative.</td>
<td></td>
</tr>
</tbody>
</table>

Participant Detre, researcher Sutak, and Detre’s friend, Ksoo were in the following conversation. Ksoo seemed to be more comfortable with the game. The procedure of the participant assisting Ksoo looked much like the researcher helping himself.
Table 29. *Conversation 14-2*

<table>
<thead>
<tr>
<th>Time</th>
<th>Player</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/21 05:03:36.928</td>
<td>Detre</td>
<td>says: i'll support[u] u=w=..??</td>
</tr>
<tr>
<td>12/21 05:03:40.411</td>
<td>Detre</td>
<td>says: if i can &lt;</td>
</tr>
<tr>
<td>12/21 05:04:32.871</td>
<td>Detre</td>
<td>says: why don't u going your quest?</td>
</tr>
<tr>
<td>12/21 05:04:40.101</td>
<td>Detre</td>
<td>says: u can go!</td>
</tr>
<tr>
<td>12/21 05:04:54.552</td>
<td>Ksoo</td>
<td>says: A Humble Task The Hunt Continues</td>
</tr>
<tr>
<td>12/21 05:04:58.199</td>
<td>Detre</td>
<td>says: ?</td>
</tr>
<tr>
<td>12/21 05:05:06.676</td>
<td>Detre</td>
<td>says: it's a trash, why?</td>
</tr>
<tr>
<td>12/21 05:05:07.541</td>
<td>Ksoo</td>
<td>says: click</td>
</tr>
<tr>
<td>12/21 05:05:07.887</td>
<td>Sutak</td>
<td>says: i don't know which quest that is..did you install the addons?</td>
</tr>
<tr>
<td>12/21 05:05:19.117</td>
<td>Detre</td>
<td>says: hmm</td>
</tr>
<tr>
<td>12/21 05:05:19.160</td>
<td>Ksoo</td>
<td>says: nono</td>
</tr>
<tr>
<td>12/21 05:05:30.128</td>
<td>Detre</td>
<td>says: which one do u need to kill?</td>
</tr>
<tr>
<td>12/21 05:05:31.962</td>
<td>Ksoo</td>
<td>says: add not install</td>
</tr>
<tr>
<td>12/21 05:05:35.402</td>
<td>Detre</td>
<td>says: i don't know your quest</td>
</tr>
</tbody>
</table>

---

184 A Humble Task The Hunt Continues was the title of the quest, not a sentence Ksoo had structured.
185 Worthless item
186 Used ? to say why?
187 This meant Ksoo looted the item with an accidental click. Ksoo’s English was not comfortable enough to explain this in a full sentence.
188 Addons are similar to apps in smartphones. The reason that Sutak asked was that if all of them had the same addon, both Sutak and Detre could track Ksoo’s quests.
189 Answering Sutak’s line 10 question
190 Line 15 was the participant’s continuous speech from line 13.
Three people interact in this conversation, and it was interesting to compare language between Ksoo and the participant. Ksoo’s English language competence was better than the participant’s, but possibly because of not being accustomed to the environment, his language production did not look fluent.

Let’s look at lines 1, 2, 3, and 4. The participant told Ksoo that his role was to assist Ksoo.

1) Line 1+2: *I’ll support [support] you* if I can.

2) Line 3: *why don’t you going[go] your quest?*

3) Line 4: *you can go!*

---

191 Answering the participant’s question, Ksoo said that he was on *The Hunt Continues* quest.

192 The researcher explains how to install the addon to Ksoo.

193 Answer to participant’s line 17 question.

194 The researcher was telling Ksoo to re-login after installing the addon.

195 Answering to the researcher’s line 18 question.

196 In order to clearly understand the sentence, _u_ was changed into _you_.

The participant used a complex sentence in 1). In this utterance, he put the main clause in front and the subordinate clause at the end. It was the first time for the participant to use this type of complex sentence. This is the first finding in this conversation. Although his spelling of *support* was wrong, it could be considered as a minor mistake, thus not important in language development. The second finding was that the participant used the *why don’t you*~ structure for the first time. It is possible to assume that the participant had combined two chunks together; *Why don’t you*~ + *Going your quest*. This is the third finding: chunk + chunk. The slight mistake is that he used *going* instead of using *go*. But this is not important here, because the reason for his mistake was due to a lack of his grammatical ability. It is amazing that the participant was enhancing his language ability, conversation by conversation. It was very similar to the language development of L1 children from the age of 3 to 5.

Another factor I would like to emphasize is that the participant connected the full sentences into discourse. Since conversation 13, the participant’s use of discourse had increased noticeably. This could be evidence of the participant’s language development but also a sign that his role in the game had changed. In other words, the participant’s changing role in his game society goes together with his language development. This could be seen in the same line with language socialization, where the cultural knowledge and language knowledge are considered as inseparable aspects. This is the fourth finding.

4) Line 7: ?

5) Line 8: *it’s a trash, why?*

---

197 Explanations of discourse (incomplete)
The participant asked Ksoo with a symbol in 4) and asked again with words in 5). It seems that he was emphasizing his question toward Ksoo. Specifically speaking, 4) and 5) were a discourse intensifying his question. This question strategy was first introduced in this conversation.

Another thing to mention was that the word *trash* was used for the first time. How could he suddenly utter such a word, including a discourse for intensifying questions? Nobody knows, but it could be guessed that the participant might pick up such words while going through a variety of tasks. Then another question can be raised about how he noticed them. The answer is a primary concern over *WoW*. The game made him look for appropriate words for what he wanted to say. When he happened to hear the relevant words, the participant could notice them.

Now let’s examine his additional discourse ability. Lines 13 and 15 were another discourse from the participant:

6) Line 13: *which one do you need to kill?*

7) Line 15: *I don’t know your quest.*

What made the participant construct such discourse? Did his grammatical ability construct the discourse? It was true that the grammatical ability of the participant did increase. But in this situation, that could not be the answer. Grammatical competence only leads to building a correct sentence, not a discourse. Then what was the secret? It was his knowledge of *WoW*. Increasing his game knowledge, the participant could know what to talk about, what to ask, etc. That made him to keep talking with more than one sentence.
Speaking of his language, the participant used a new language form *which one* (determiner) in 6). However, there is no evidence that he had understood *which* as a determiner. Luckily there is one clue that he experienced *which one* in conversation 11-3. The researcher used that as below.

8) Conversation 11-3, line 9: *which one will be better?*

We do not know how the participant could notice *which one* from the researcher. Instead we know that the participant took *which one* as a chunk.

Now let’s talk about the participant’s use of the infinitive *to*. The following sentences indicated the use of the infinitive *to*, which he used four times before this conversation.

9) Conversation 9-3 line 3: *Let’s go to kill elite!*

10) Conversation 10-2 line 1: *I need to take this?*

11) Conversation 10-3 line 12: *We need to make home here?*

12) Conversation 11-3 line 5: *if you want to hit*

Through the multiple uses of infinitive *to*, it could be concluded that the participant acquired the infinitive *to*. The reason was that he productively used *to* after *go, need, and want*. However, we could picture a different drawing against his acquisition of *to*. For example, suppose he went through *go to, need to, and want to* many times in *WoW*. If so, he could be accustomed to only using such verbs + infinitive *to*. In this case, his acquisition of the infinitive *to* could not be approved. Thus it would be safe to conclude that the participant used the infinitive *to* only after some specific verbs. It implies that he habitually uses infinitive *to* on a certain context (e.g. *go to, need to, and want to*).
In summary, this conversation introduced new language forms of the participant. It was not certain if he acquired the forms or used them as chunks and patterns. However, the data was not enough to ensure that these were acquired forms. In this conversation, some findings reflect his language development again. They are the uses of complex sentences, discourse, the determiner *which*, and the infinitive *to*. However, we temporarily conclude that the participant acquired those forms as prefabrication, not as grammar. The following are the findings in this conversation.

Table 28-2. *Findings in conversation 14-2*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1+2 → complex sentence</td>
<td>Main clause + subordinate, First appearance</td>
</tr>
<tr>
<td>line 3 → grammatically wrong</td>
<td>Forming a sentence with chunks.</td>
</tr>
<tr>
<td>→ chunk + chunk</td>
<td></td>
</tr>
<tr>
<td>line 7+8 → symbol + language</td>
<td>Intensifying his intention</td>
</tr>
<tr>
<td>→ discourse</td>
<td>A chunk with <em>which one</em></td>
</tr>
<tr>
<td>line 13 → emergence of</td>
<td>Only with specific verbs</td>
</tr>
<tr>
<td>determiner <em>which</em></td>
<td></td>
</tr>
<tr>
<td>line 13 → infinitive <em>to</em>,</td>
<td></td>
</tr>
<tr>
<td>acquired?</td>
<td></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1+2+3+4 → discourse</td>
<td>Promise + advice</td>
</tr>
<tr>
<td>formation</td>
<td>Emphasize</td>
</tr>
<tr>
<td>line 7+8 → Intensifying his</td>
<td>Choice</td>
</tr>
<tr>
<td>intentions</td>
<td></td>
</tr>
<tr>
<td>line 13 → First appearance of</td>
<td></td>
</tr>
<tr>
<td>‘which one~’</td>
<td></td>
</tr>
</tbody>
</table>
Significance

The participant constructed a discourse as well as a sentence. Increasing his knowledge of the *WoW* game, he had spoken more and taken communicating initiative.

Though he improved his language ability, we are not sure that he acquired those forms yet.

His main strategy to develop his language was mainly based on chunks and prefabricated patterns.

4.5.2 Necessity of negative feedback period

In this period, some of his production remain ungrammatical. They were ignored from other players because they were not harmful to the player’s understanding. However they might be fossilized if they were not corrected for a long time.

In the following conversation, the participant, researcher, and Ksoo were talking in a non-game-related content.

Table 27-3. *Conversation 14-3*

<table>
<thead>
<tr>
<th>Time</th>
<th>Channel</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/21 06:00:41.463</td>
<td>Hchannel:Guild</td>
<td>h Detre: hanbi bro\textsuperscript{198} come back</td>
</tr>
<tr>
<td>12/21 06:01:04.751</td>
<td>Hchannel:Guild</td>
<td>h Ksoo: you go?\textsuperscript{199}</td>
</tr>
<tr>
<td>12/21 06:01:24.173</td>
<td>Hchannel:Guild</td>
<td>h Detre: he just go to see her\textsuperscript{200}...	extsuperscript{w}=</td>
</tr>
</tbody>
</table>

\textsuperscript{198} Name (Internet nickname) of the researcher.

\textsuperscript{199} Talking to the researcher.

\textsuperscript{200} Researcher's wife.
5. 12/21 06:01:32.538 |Hchannel:Guild|h[Guild]|h Detre: now come back
6. 12/21 06:01:35.497 |Hchannel:Guild|h[Guild]|h Ksoo: kk
7. 12/21 06:01:37.665 |Hchannel:Guild|h[Guild]|h Sutak: i just went to tuck her to bed
8. 12/21 06:01:46.817 |Hchannel:Guild|h[Guild]|h Sutak: you'll understand when you get married
9. 12/21 06:01:47.372 |Hchannel:Guild|h[Guild]|h Detre: it's your time
10. 12/21 06:01:56.782 |Hchannel:Guild|h[Guild]|h Ksoo: ;;;

The reason I introduce this data is because it was not related to gaming situations, compared with most of previous conversations related to game-topics. Specifically, conversation 14-3 was a place to personally socialize with other players within the game. Language forms the participant was supposed to learn were hopefully applied to general conversation situations out of the game. In this sense, the participant passes from an early stage (pidgin) to an advanced stage (creole). In line 1, the participant used a chunk, come back, to the researcher, and in line 3 the participant told Ksoo where the researcher had gone.

1) Line 3: he just go[went] to see her.

---

201 Answering Ksoo.
202 Indicated that the researcher came back.
203 In U.S. chatrooms, kk normally means okay. But in Korea, the laughing sound is used with kk. Therefore, in this conversation, Ksoo was laughing.
204 Telling that it is Ksoo’s time to get married.
205 Korean style emoticon, means I’m sweating (panacing). This indicated that marriage was not too easy to Ksoo at this moment.
As noted in the previous conversation, the participant used the infinitive *to* in the following situations:

2) Conversation 9-3, line 3: *Let’s go to kill elite!*

3) Conversation 10-2, line 1: *I need to take this?*

4) Conversation 10-3, line 12: *We need to make home here?*

5) Conversation 11-3, line 5: *if you want to hit*

6) Conversation 14-2, line 13: *which one do you need to kill?*

In the previous conversation 14-2, we concluded that his use of the infinitive *to* might be habitual in some contexts such as *go to, need to,* and *want to.* In this conversation 14-3, he used the infinitive *to* after the verb *go* again. In this sense, the participant’s use of the infinitive *to* was habitual. However, in a functional perspective, it should be said that he acquired infinitive *to.* He productively used the infinitive *to* in both game-related and non-game-related situations. This is the first finding.

The participant had shown limitations in his grammatical knowledge. He used the verb as present tense where it should have been a past tense. The reason for this error was because the participant was accustomed to *go to (do)* patterns; thus his awareness of grammar knowledge could been seen as a weakness. This repeats in line 5:

7) Line 5: *now come[came] back.*

The participant was not aware of using the past tense, because he used come back as a single chunk. He failed to convert the chunks into different grammatical forms depending on the situation.

In 1) and 7), the second findings, the participant made two grammatical mistakes. It was assumed that he might correct those mistakes if he received negative feedback
from other players. As far as his grammatical mistakes remained untouched, they might be fossilized. Generally adults do not correct other interlocutors’ grammatical problems unless the grammatical problems obstruct understanding. Let’s observe the following sentences:

8) Line 9: *it’s your time...*

9) *It’s your turn to get married.*

10) *It’s time for you to get married.*

If the participant wanted to structure a full sentence of *your* in 8), it should be structured as 9), and if he wanted to use *time* in 8), it should be structured as 10). One of the reasons that the participant committed such an error was because he did not have the chunks *it’s your turn* and *to get married*. Additionally, *it’s time* and *for you got get married* was not a chunk and thus had to elaborate an incomplete sentence in 8). In other words, the participant did memorized non-game related chunks. Thus, he had no choice but to come up with the incomplete sentence in conversation 14-3, sentence 8).

This is the third finding: when the participant did not have chunks in his mental lexicon, he tended to use grammatical knowledge in order to build relevant expressions. However, the participant’s language awareness would become active if he realized that he would need new language forms in a new conversation situation. In this sense, interactions such as those in conversation 14-3 (without game-oriented purposes) could have positive effects on language development.

In sum, this conversation was non-game-related. It was an opportunity to observe the participant’s language forms learned through games, applied into a non-game conversation. Also, it was found that the participant used his grammatical knowledge
when he did not have language forms he’d learned as chunks. Therefore, conversation 14-3 had significance. The following table sums up conversation 14-3.

Table 28-3. *Findings in conversation 14-3*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Remarks</td>
</tr>
<tr>
<td>line 1, <em>come back</em> → phrasal verb</td>
<td>A language function, Due to the fact that he was accustomed to the chunk <em>go to</em>.</td>
</tr>
<tr>
<td>line 3, <em>he just go to see her.</em> → ‘went’</td>
<td>The participant learned the language form and applied it into multiple situations functionally, the <em>go to</em> form was successfully acquired.</td>
</tr>
<tr>
<td>line 3, <em>he just go to see her.</em> → infinitive to</td>
<td></td>
</tr>
<tr>
<td>line 5, <em>now come back.</em> → <em>came</em></td>
<td>He needs negative feedback.</td>
</tr>
<tr>
<td>line 9, it’s your time → incomplete</td>
<td>Formal learning is necessary.</td>
</tr>
<tr>
<td></td>
<td>He did not have chunks to express his intention after <em>it’s your time</em>...</td>
</tr>
</tbody>
</table>

So he gave up trying to construct
Function | line 3, *he just go to see her.* → infinitive to | Purpose
--- | --- | ---
Significance | There were three findings in this conversation. First, acquisition of infinitive *to*, second, necessity of negative feedback and formal learning, and third, no chunks and use of grammar. |  

In the following conversation, the participant, Detre, and the researcher, loveshot, were talking about using the in-game voice chat system. Detre’s game knowledge was in the advanced stage of the research, but his language knowledge was in the mid stage. However, the participant had no issues getting around in the game with his language ability.

Table 29. *Conversation 15*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1/9 00:33:40.215</td>
</tr>
<tr>
<td>2.</td>
<td>1/9 00:36:57.707</td>
</tr>
<tr>
<td>3.</td>
<td>1/9 00:37:07.454</td>
</tr>
<tr>
<td>4.</td>
<td>1/9 00:37:19.952</td>
</tr>
<tr>
<td>5.</td>
<td>1/9 00:37:31.589</td>
</tr>
<tr>
<td>6.</td>
<td>1/9 00:38:32.522</td>
</tr>
</tbody>
</table>

[^206]: The participant says the researcher's voice sounds far away from him.  
[^207]: The participant asks if *small* could be used to express the high/low volume.
okay? isn't it too low?

7. 1/9 00:38:40.253 |Hchannel:Guild|h[Guild]|h Detre: too low208...
8. 1/9 00:49:35.397 |Hchannel:Guild|h[Guild]|h Loveshot: i'll be there soon
9. 1/9 00:49:40.633 |Hchannel:Guild|h[ Guild]|h Detre: yap..it's too far, isn't it?

This conversation was accidentally non-game related content. Because the participant and the researcher were trying to connect the in-game voice chat system, the conversation became non-game related. Due to the fact that the content was non-game related, it was expected that the participant would reveal limitations using chunks. Let’s see line 1:

1) Line 1: u r so far...

The participant wanted to say you sound far away from me or you seem so far. However, the participant did not have suitable chunks to express these sentences, and 1) was the closest he could elaborate. But his intention in 1) was not about the physical distance; the participant committed an error. However, the researcher correctly guessed the intentions of the participant in line 2, and he did not give negative feedback to the participant, so the participant might believe his expressions were correct at this moment. When the participant receives negative evidence209, he will then correct his error.

Let’s observe the findings in 2) and 3). In 2), the researcher used the auxiliary verb can. In 3), the participant answered with can.

2) Line 2: Can you hear me? (Researcher)
3) Line 3: *Yap, I can.*

Technically speaking, the participant knew how to use the auxiliary verb *can* in a proverb form. In this perspective, the participant’s grammatical knowledge was developing, and it was positive that the participant was not aware of his “language acquisition” process. He simply answered with *can* because of its convenience. He did not answer in 3) in order to show his grammatical development. This is an advantage of natural learning.

In lines 4 and 5, the participant requested help from the researcher. He did not ask for language forms thus far in the research, but in this conversation he requested scaffolding from the researcher. This is the second finding: scaffolding.

4) Lines 4 + 5: *but it’s too… how can I say… small?*

Since the participant confronted an unexpected non-game related conversation, he was having trouble expressing his thoughts. In line 4, *but it’s too…* indicated that he needed help with completing the sentence. In line 5 he asked the researcher by saying *how can I say…* and asked if *small* was correct to use in this sentence structure. The following is the formula that the participant used to ask a question:

5) Implication of the word he wanted to say (*it’s too…*) + question (*how can I say…*) + suggestion of alternative (*small*)

This formula reflects the participant’s ability for communication strategy. The *how can I say…* language form was also a new form he spoke. How the participant learned to use this language form cannot be explained solely through the research data, but supposedly he needed to know this expression in order to ask a question in the target language community.
Asking for the researcher’s scaffolding was an important factor. The participant did not ask for language-related help thus far in the research. But then why all of the sudden did he ask for help? His previous language had shown a fair amount of errors. He did not ask for help before, but he asked for it now. The possible answer could be that he wanted to know a correct way to construct his sentences. He was satisfied with his limited English language ability up to this point, but he decided he needed to understand more and speak better English in order to function well in the World of Warcraft community. Whatever the real reason was, it was clear that his attitude toward English had changed. This is the third finding in which the participant began to show concerns over language learning. This could be an important turning point in terms of his language learning.

Line 7 is a good example of his change of attitude. In line 7, the participant learned *low* instead of using *small*. Surprisingly, he immediately practiced *low* in line 7, in order to intake the word. This supports the fact that his attitude toward English language learning had changed.

The following was the participant’s utterance. It is worth examining because he had shown additional aspects of language development.

6) Line 9: *Yap, it’s too far, isn’t it?*

In 6), the participant used a tag question for the first time. This is a development communicatively as well as linguistically because the “tag question” implies the communicative function of “confirming.” This is the fourth finding.
In line 1, it was mentioned that he did not receive negative evidence for *u r so far*. As a result he used similar phrase *too far* to *so far* in line 6). This incident could represent why adult learners produce multiple errors in second language speaking, because if negative feedback was not given, they could believe the expression was right and feel no need to fix it. In other words, some language forms might be fossilized without negative feedback and formal learning could be necessary, as already mentioned.

In this conversation, *performing new tasks* should be emphasized. Although the participant was not given a new task in this conversation, the conversation itself could be regarded as task in which he was trying to maneuver through a difficult situation. In such a task, his language ability was put to test. That is, he learned new language forms, used previously known language forms, and used incorrect forms because of lack of negative feedback. In this perspective, the *World of Warcraft* environment contains a natural setting for language learning. This would be the benefit of *World of Warcraft*.

In sum, the participant used proverbs and tag questions in a language perspective. Additionally, he requested scaffolding for the first time and changed his attitude toward English language learning. He also has shown communication strategy in questioning. In a nutshell, the participant’s language was tested in a new setting. The following are the findings in this conversation.

Table 30. *Findings in conversation 15*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
</table>

210 Although *so* changed to *too*, the point is that *is* should be used with *seems*. 
<table>
<thead>
<tr>
<th>Form</th>
<th>Function</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>line 1, <em>u r so far</em> → physical distance</td>
<td></td>
<td>Since the researcher understood the expression, no negative feedback was given.</td>
</tr>
<tr>
<td>line 3, <em>I can.</em> → auxiliary verb and proverb</td>
<td></td>
<td>First use of proverb</td>
</tr>
<tr>
<td>line 4, <em>it’s too...</em> → incomplete sentence</td>
<td></td>
<td>Did not know the right word</td>
</tr>
<tr>
<td>line 5, <em>how can I say... small?</em></td>
<td></td>
<td>First use of <em>how can I say</em> expression</td>
</tr>
<tr>
<td>line 7, <em>too low...</em> → Completing line 4 sentence</td>
<td></td>
<td>Practiced the word <em>low</em></td>
</tr>
<tr>
<td>line 9, <em>it’s too far</em> → fossilization</td>
<td></td>
<td>No negative feedback</td>
</tr>
<tr>
<td>line 9, <em>isn’t it?</em> → tag question</td>
<td></td>
<td>First use of tag questions</td>
</tr>
<tr>
<td>line 4, <em>it’s too...</em> → incomplete sentence</td>
<td></td>
<td>Implying help to complete the sentence.</td>
</tr>
<tr>
<td>line 5 → <em>how can I say...</em></td>
<td></td>
<td>Question</td>
</tr>
<tr>
<td>line 5 → <em>small</em></td>
<td></td>
<td>Alternative suggestion</td>
</tr>
<tr>
<td>line 9, <em>isn’t it?</em> → tag question</td>
<td></td>
<td>Confirming</td>
</tr>
<tr>
<td>There were four findings. First, use of proverb <em>can</em>; second, <em>scaffolding</em>; third, <em>change of attitude</em> toward language learning; and fourth, use of <em>tag question</em>.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In a word, the participant developed his communicative skills and was aware of better language learning.

### 4.5.3 A small talk period

From Table 31-1 through Table 33-2, the participant showed that he was good at a small talk. In Table 31-1, he made a joke. In Table 31-2, he was proud of his character and kept talking about that. In Table 33-1, he was joking about the researcher’s pet dog. In Table 33-2, the participant was proudly talking about what he had done in the game.

In the following conversation, Iriya, the participant, was a priest, and loveshot, the researcher, was a hunter (he thought he was a rogue until halfway through conversation 16 series). They were playing as night-elf and the faction was Alliance.

In the series of conversation 16, the participant’s language proficiency developed from his mid-stage to higher mid-stage. In conversation 16 series, the participant joined an applied linguistics class where graduate students were experiencing the *World of Warcraft* environment. Since the participant interacted with graduate students, his English proficiency was expected to develop.

The participant’s game knowledge was high enough to teach other novice players; therefore, it would considered in his higher mid-stage. On February 22nd, 2009 the participant and the researcher joined a graduate class as helpers.

In the following conversation 16-1, the graduate students from two different classes were meeting for the first time in the game. Kloudo was a person the participant knew very well.
### Table 31-1. Conversation 16-1

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2/22 21:11:14.898</td>
<td>Loveshot: that's my friend&lt;sup&gt;211&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>2/22 21:11:20.647</td>
<td>Iriya: Hello people&lt;sup&gt;212&lt;/sup&gt; :)</td>
</tr>
<tr>
<td>3</td>
<td>2/22 21:11:30.199</td>
<td>Zyrr&lt;sup&gt;213&lt;/sup&gt;: hey everyone</td>
</tr>
<tr>
<td>4</td>
<td>2/22 21:11:30.895</td>
<td>Kludo: hello ina&lt;sup&gt;214&lt;/sup&gt;~</td>
</tr>
<tr>
<td>5</td>
<td>2/22 21:11:34.584</td>
<td>Slöwcöách&lt;sup&gt;215&lt;/sup&gt;: hi all!</td>
</tr>
<tr>
<td>6</td>
<td>2/22 21:11:41.142</td>
<td>Iriya: ...your name&lt;sup&gt;216&lt;/sup&gt;..</td>
</tr>
<tr>
<td>7</td>
<td>2/22 21:11:50.204</td>
<td>Iriya: start with 'K' too^^</td>
</tr>
<tr>
<td>8</td>
<td>2/22 21:11:53.900</td>
<td>Iriya: ....&lt;sup&gt;217&lt;/sup&gt;</td>
</tr>
<tr>
<td>9</td>
<td>2/22 21:12:00.426</td>
<td>Kludo: hmm;;you know the reason&lt;sup&gt;218&lt;/sup&gt;...</td>
</tr>
</tbody>
</table>

The purpose of introducing this conversation is to demonstrate an example of various topics emerging in the interactions. The topics included social talk as well as game talk. Conversations with various topics such as this could be considered as a benefit in using *World of Warcraft* as language-learning material.

One of the benefits that *World of Warcraft* holds is providing learners with a natural learning environment, similar to Krashen’s argument. Krashen (1982) had argued that adult L2 learners should learn language in the same environment as children learn their mother language. The children’s mother language learning environment would be

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<sup>211</sup> The researcher points out that the participant is his friend.

<sup>212</sup> The participant greeted multiple people.

<sup>213</sup> Graduate student.

<sup>214</sup> Kludo already knew the participant, therefore she called him by his name.

<sup>215</sup> Graduate student.

<sup>216</sup> The participant noticed that his friend Kludo used K to make her character’s name.

<sup>217</sup> Silence

<sup>218</sup> Kludo tells the participant that he knew why she only used K as her character’s name.
the most natural setting, without teachers or materials, which are artificial components in the classroom. The *World of Warcraft* environment (MMO environments) had similar settings and could be seen as a parallel setting with the children’s environment.

Then how do L1 children or L2 adults playing *World of Warcraft* learn language? This could be explained through socio-cultural theory and language socialization; thus these would be the second and third benefits of using *World of Warcraft* in language-learning settings. Lantolf (2000a) had stated that the crucial concept of socio-cultural theory was mediation of higher forms of human mental activity, such as use of memory, thinking of concepts, thinking logically, etc. He continued to argue that people used symbolic tools (mainly language) in order to ease the forms of human mental activity. In a socio-cultural perspective, language was a mere tool for children learning their mother language and adults learning a second language. Their purposes were focused on the non-language goal, not on language learning. In other words, language is a tool to acquire a particular interest. L1 children and L2 adults playing games happen to learn their L1 and L2 respectively. Specifically, they do not participate in the community in order to learn L1 and L2, but they learn L1 and L2 in order to socialize in the community.

L1 children and L2 adults playing *World of Warcraft* were similar in their language learning process according to a language socialization perspective. Mitchell and Myles (2004) argued that the language socialization perspective draws attention to researchers who develop language learning in a more integrated perspective. Specifically, when a language learner learns language, they do not focus solely on the language, but broaden the interest to social and cultural norms simultaneously. The participant in this research was only interested in playing *World of Warcraft* and did not care about
language learning in the beginning stage of the game. However, as he advanced through the game, he confronted situations where he needed the target language, so he decided to learn the English language. The important point here is that his decision was for the purpose of becoming a member of the game community, not to become a good language learner. In this respect, the participant’s learning was slightly different from that of Ochs’s (1996) argument, “Language socialization is a concept the editors take to mean both socialization through language and socialization to use language” (p. 2). The participant needed the English language to become a better gamer in the game society. That is why he took an interest in learning English. However, he did not socialize to use language as Ochs said, but he socialized to enjoy the game. However, both learning in the *World of Warcraft* environment and learning from language socialization were preceded as integration. Therefore, the slight differences mentioned above cannot matter.

In Task-based language teaching (TBLT) the similarity between L1 children and L2 adult *World of Warcraft* gamers was not considered as different. This would be the fourth benefit of *World of Warcraft*. In TBLT, a task requires that meaning should be in the primary focus, and that successful task depends on outcome of the task, not on language performance. And it requires that tasks should mirror real-life language use (Skehan, 1996); however, in the *World of Warcraft* situation, a task could be rather considered as a real-life setting. In this way, in a TBLT perspective, *World of Warcraft* consists of tasks that completely fulfill three conditions above. For example, conversation 16-1 can be a task in which players greet each other. So it can be called “greeting task.” On the other hand, for L1 children, we don’t have to mention them because it is true that they face new tasks every single day. So we can say that L1 children confronted various
types of tasks daily, and the participant in World of Warcraft also confronted various
tasks that had multiple functions; thus these two share similar aspects.

The fifth benefit of World of Warcraft was that language forms learned in the
game were in chunks, which is the main concept of the lexical approach. As previously
noted in Chapter 2, in the lexical approach perspective, the role of lexical units has been
emphasized in L1 and L2 acquisition research: Corder’s (1973) holophrases, Hakuta’s
lexicalized units. In the lexical approach, language learning and communication’s
components (the building blocks) were not grammar, nor functions, but only lexis, thus
combinations of word and word (Richards & Rodgers, 2001).

The sixth benefit was noticing. In order to transfer input into intake, noticing is
crucial. If an L2 adult gamer intended to speak a specific language form, the form needed
to be noticed in the game interaction, and then it was expected to transfer to intake. The
participant in this research had gone through this process multiple times and used various
chunks in speaking.

Then, back to conversation 16-1, lines 2, 3 and 5 for the purpose of greeting
should be observed:

1) Line 2: Hello, people. (participant)

2) Line 3: Hey, everyone. (Other 1)

3) Line 5: Hi, all (Other 2)

In conversation 16-1, the purpose of the task was “greeting” each other. All three
members greet each other in an informal friendly way. If the participant learned the
different greeting forms from other players, he would imitate the forms in the future.
The first finding in this conversation is that the participant used a distinctive greeting form among the game players. We do not know when and where he learned the form, but we know that he learned “Hello, people” in previous tasks. Therefore, we can positively say that “tasks” provide new language forms.

In lines 6 and 7, the participant was careless about using -s in front of the third person singular.

4) Line 6+7: Your name start[s] with ‘K’, too.

Since, Your name was a third person singular, the simple present verb start should have -s as the ending on the verb. Even though the participant’s language development had occurred in multiple areas, he continued to commit this type of grammatical error. The participant did not consider grammar knowledge of the third person singular as a barrier in communicating with others. Additionally, other players were not providing negative feedback, thus this pattern was in the fossilization status. As mentioned earlier, as far as he was not corrected, the participant remained with grammatically wrong language forms. If he wanted to become a better language performer, the participant needed to receive formal learning. This is the second finding.

In a language function perspective, the 4) utterance had an important meaning, because after he initially greeted other people, the participant held the communicating initiative and continued to interact with his friend Kludo. As far as the purpose of the task is “greeting and socializing,” communicating initiative functions as socializing first, which means that the participant actively shows his interest to other players. This is the third finding.
In sum, *World of Warcraft* provided multiple opportunities to participate in communication that did not relate to gaming. These types of various communication opportunities will impact the participant's language forms in the future. Technically speaking, the participant’s language had a possibility to move from pidgin to creole. On the other hand, he continued to commit errors in simple present verbs ending with “-s” in the third person singular.

In a language-function perspective, the participant greeted other players and used the letter *K* as an active socialization. This is called “communicating initiative.” The following are the findings in this conversation.

Table 32-1. *Findings in conversation 16-1*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 2, <em>Hello, people</em> → Greeting</td>
<td>Distinctive language form among others</td>
</tr>
<tr>
<td>line 6+7, <em>your name start with ‘K’, too.</em> → grammatically wrong</td>
<td>Was not concerned with minor errors in conversations.</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 2 → <em>Hello people</em></td>
<td>Initiates conversation</td>
</tr>
<tr>
<td>line 6+7 → <em>your name start with ‘K’, too.</em></td>
<td>Continues conversation and communicating initiative</td>
</tr>
</tbody>
</table>
There were 3 findings in this conversation. First, he used a distinctive greeting form, with which he learned from previous tasks. Second, he needed formal learning for better language performance. And third, he showed his active involvement in communication with communicating initiative.

In the following conversation, the participant and researcher talked to each other about the participant’s new rogue character that he had been leveling alone. The conversation was done through group chat, so only the participant and researcher could communicate with each other. The participant talked about his rogue becoming level 19 and acquiring some blue items. The participant was happy that his rogue was very strong for his level. In the last couple of sentences in this conversation, the participant told the researcher to change the loot system to free-for-all. When players are in a group, the default loot system was called group looting; the game system automatically lets the players to take the item in turns; however, if the loot system was free-for-all, then anyone in the group could loot the item regardless of their turn. However, the researcher said that he wanted to wait for more people to log in and decide the loot system later. The participant's speech or u wanna make teams other way? meant if the researcher wanted to separate groups between the researcher and participant.

Table 31-2. *Conversation 16-2*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2/22 21:12:53.865</td>
</tr>
</tbody>
</table>
In conversation 16-2, the participant was taking part in a new task in which he was predicted to experience new language forms. There was nothing special happening, but there were new language forms. The language forms were used like pidgins. Let’s observe lines 1 and 2.

1) Lines 1+2: *My rogue hit lvl 19.*

At first, let’s see *rogue.* This is a *WoW* game terminology. It is only used in the game. In other words, *rogue* has one function in this game. The expression *My rogue hit*
*lvl 19* is a game routine, so it can be a fixed expression, which can be one language form with one function. That’s why it functions as pidgin.

Here is the first finding: as he learned *rogue* in a new task, the participant was expected to learn the *My rogue hit lvl 19* expression. In this way, his language development will proceed. The verb *hit* in 1 could be used in general situations. Rundell’s (2002) dictionary explained the verb *hit*:

2) hit: 4 [spoken] to reach a place, especially on your way to somewhere else

Ex) when you hit the traffic lights, turn left.

However, 2) should be learned as a routine in order to use *hit* as 2) because the usage of *hit* is used in a spoken language. Most language expressions in a spoken language need to be easy to produce. That’s why routines develop. Thus, *hit* in 1) can be considered as a part of routine in *World of Warcraft* settings.

Line 5 would be a similar example of the first finding:

3) *I got blue H1 sword yesterday.*

*Blue H1 sword* was a game terminology. Naturally it is going to be included into a game routine. When he often used the routine in the new task, the participant would notice *I got + blue 1H sword + yesterday*. If he successfully noticed chunks such as *I got*, and *yesterday*, he might have a chance to reuse *I got* in different situations. When he notices tense difference between *I got* and *I get*, and when he correctly uses *I get* with a different chunk, we can say that he has successfully acquired the *I get* pattern.

In line 7, the participant had used a U.S. style of expression in order to intensify the adjective *strong*. 
4) Line 7: *It is sooo strong.*

The participant began to use multiple vowels (e.g. soooooo) to emphasize the *so* expression. This pattern indicated that he began to understand how to emphasize his sentences to others. This is the second finding. He learned how to express the intensifying adverb “so” in an American chatting way. This means that he acquired correct register in terms of social value as well as language form. In line 10, the participant used a game routine:

5) Line 10: *This is not [free] for all.*

This is another example of the first finding. The *free for all* was used as a game routine. It functioned as jargon, but this game terminology chunk had a possibility to transfer to a general situation of a *free for anyone* expression. Technically speaking, he had a high possibility to move from pidgin to creole again. Line 11 was a complicated sentence that the participant had barely used previously:

6) Line 11: *you wanna make teams other[another] way?*

When he notices *you wanna + make teams + other way* separately, and when he used the expression *you wanna* and *other way* in a general communication settings, then these patterns will function as evidence of his language development. This can be another example of the first finding.

In summary, the participant used new expressions in a new task situation. It is hoped that these expressions should transfer to general communication settings in the future for language development. The following are the findings in conversation 16-2.

Table 32-2. *Findings in conversation 16-2*
<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 1+2: <em>My rouge hit lvl 19.</em> → game routine</td>
<td>Pidgin</td>
</tr>
<tr>
<td>line 5: <em>I got blue H1 sword~</em> → game routine</td>
<td>Pidgin</td>
</tr>
<tr>
<td>line 7: <em>It’s sooo strong.</em> → adverb <em>so</em> → register</td>
<td>U.S. style</td>
</tr>
<tr>
<td>line 10: <em>this is not free for all</em> → <em>free for all</em></td>
<td>Game chunk</td>
</tr>
<tr>
<td>line 11: <em>you wanna~?</em> → <em>you wanna</em></td>
<td>Game chunk</td>
</tr>
<tr>
<td>line 11: ~ <em>other way?</em> → <em>other way</em></td>
<td>Game chunk</td>
</tr>
<tr>
<td>Function</td>
<td></td>
</tr>
<tr>
<td>line 1+2: <em>hit</em> → verb</td>
<td>Describe</td>
</tr>
<tr>
<td>line 5: <em>I got</em> → chunk</td>
<td>Possess</td>
</tr>
<tr>
<td>line 7: <em>sooo</em> → adverb</td>
<td>Intensifying</td>
</tr>
<tr>
<td>line 10: <em>free for all</em> → chunk</td>
<td>Condition</td>
</tr>
<tr>
<td>line 11: <em>you wanna</em> → chunk</td>
<td>Suggestion</td>
</tr>
<tr>
<td>line 11: <em>other[another] way</em> → chunk</td>
<td>Method</td>
</tr>
<tr>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>There were two findings. First, he took part in a new task that resulted in language development from game terminologies through game chunks to game routine. Second, he learned the correct register of <em>so</em> in the game chatting. It means that he learned not only a new expressing way of <em>so</em> but also social norms of the <em>WoW</em> game community. If specific language forms in game settings would be divided into chunks, and they gradually transfer to general communication settings, this can be language development.</td>
<td></td>
</tr>
</tbody>
</table>
The researcher owned a dog named Shippo, but when the researcher was trying to play *World of Warcraft*, the dog was pooping. The participant was laughing at this situation.

Table 33-1. *Conversation 17-1*

<table>
<thead>
<tr>
<th>Time</th>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/17 22:03:03.773</td>
<td>Detre</td>
<td>hey hi~</td>
</tr>
<tr>
<td>3/17 22:03:04.159</td>
<td>Lovekill</td>
<td>mail...</td>
</tr>
<tr>
<td>3/17 22:03:09.213</td>
<td>Detre</td>
<td>mail?</td>
</tr>
<tr>
<td>3/17 22:03:12.966</td>
<td>Lovekill</td>
<td>huk...wait..shippo is....action....ing²²² -_-</td>
</tr>
<tr>
<td>3/17 22:03:18.675</td>
<td>Detre</td>
<td>...-_²²³</td>
</tr>
<tr>
<td>3/17 22:03:42.680</td>
<td>Detre</td>
<td>he always know a good time to action..-_ -</td>
</tr>
<tr>
<td>3/17 22:05:03.765</td>
<td>Lovekill</td>
<td>i know</td>
</tr>
<tr>
<td>3/17 22:05:12.324</td>
<td>Lovekill</td>
<td>usually when i eat..that [is] when he goes²²⁴..-_</td>
</tr>
</tbody>
</table>

Conversation 17-1 contains non-game related conversations, which are a benefit of *World of Warcraft* related to language learning. This type of conversation provided the participant with opportunities to practice language expressions that he had learned in the game-related conversations and as a result led to language development.

In line 4, the researcher’s dog, Shippo, was pooping when he was about to play *World of Warcraft* with the participant.

1) Line 4: *Shippo is actioning*. (researcher)

---

²²² This expression was used to make the situation sillier. There are many euphemisms for *pooping*. Here are a few: *My dog is taking a dump, My dog is taking a crap, My dog is dropping a load, My dog is evacuating, My dog is backing a bus out of the garage, My dog is pinching a loaf.*

²²³ In this situation, the emoticon indicated a very unpleasant feeling

²²⁴ This sentence should be *He usually goes when I eat* or *He usually goes when he eats.*
The researcher used *actioning* instead of *pooping*. In line 6, the participant used a base form of *actioning, action*, to construct a sentence. Generally speaking, *action* was not used as a verb, but the participant used it as a verb in the following sentence:

2) Line 6: *He always know[s] a good time to action.*

The participant connected *actioning* with the infinitive *to* and transformed it into *to action*. The participant was not aware if the *action* was a verb or not, but it was surprising that he managed to delete the -ing suffix and convert *actioning* into *to action*. This procedure indicates that the participant’s grammatical knowledge developed. This is the first finding. The participant already knows that a word has its internal structure. So he knows that *actioning* consists of *action + ~ing*. But we are not sure that he knows that *actioning* divides into *act + ~ion + ~ing*. However the participant still committed an error to include the -s form in front of the verb when it was a third person singular. The participant was not aware of this error, even though he committed this error many times in the research. It is possible to assume that he did not receive any negative feedback on this error.

Another point is the noticing of the participant. The participant seemed to be curious about the expression of pooping (*actioning*), because he picked up the word *actioning* immediately. So we can say that noticing is likely to happen when curiosity or interest is stimulated on a target. This is the second finding. In a communicating perspective, the participant expressed witty comments toward the researcher's utterance in 2). This seemed to indicate that the participant was more active in conversations. In 2) he made a joke to the researcher and created a harmonious relation with the researcher.
So we can tell that the participant continued to enhance his communicative skill. This is the third finding.

In sum, the participant’s ability to notice language forms had developed. Additionally, his ability to convert language forms with suffix deletion had appeared for the first time. However, using -s after a present tense verb in a third person singular situation was still ignored. The following are the findings in this conversation.

Table 34-1. Findings in conversation 17-1

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 6, <em>he always know[s] a good time to action</em></td>
<td>Ignorance of adding -s</td>
</tr>
<tr>
<td>→ <em>know</em></td>
<td></td>
</tr>
<tr>
<td>line 6, → <em>to action</em></td>
<td>Deleting ~ing from <em>actioning</em> and noticing</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 6, <em>he always know[s] a good time to action</em></td>
<td>Used humorous comments in order to sustain the conversation</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There were 3 findings in this conversation. First, he showed that he had had morphological knowledge. Second, he showed that “interest” can be one of conditions to activate “noticing.” Third, he had a good sense of socialization such as making a joke, sustaining the conversation, etc.</td>
<td></td>
</tr>
</tbody>
</table>
In *World of Warcraft*, characters were given the ability to cook (skill). Eating cooked food provided players with useful buffs, and upon eating, certain stats will increase for a short period of time (from 15 minutes up to 2 hours). In order to obtain food, players will need to kill animal type monsters or fish. Through fishing, players can randomly obtain a skill to see schools of fish on the map. In this conversation, the participant obtained the fish skill and presented to the researcher the series of food he could make. This indicates that the participant was familiar with the game system at this period of time.

Table 33-2. *Conversation 17-2*

<table>
<thead>
<tr>
<th>Time</th>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/17 22:05:18.563</td>
<td>Detre</td>
<td>i made an interesting food</td>
</tr>
<tr>
<td>3/17 22:05:22.442</td>
<td>Detre</td>
<td>Grilled Squid</td>
</tr>
<tr>
<td>3/17 22:05:38.223</td>
<td>Detre</td>
<td>and also, i got a new skill</td>
</tr>
<tr>
<td>3/17 22:05:42.389</td>
<td>Detre</td>
<td>Find Fish(^{225})</td>
</tr>
<tr>
<td>3/17 22:05:48.098</td>
<td>Lovekill</td>
<td>hey...this is good...</td>
</tr>
<tr>
<td>3/17 22:05:51.910</td>
<td>Detre</td>
<td>interesting? =w=..</td>
</tr>
<tr>
<td>3/17 22:05:54.492</td>
<td>Lovekill</td>
<td>hmmm yes</td>
</tr>
</tbody>
</table>

It was interesting to observe that the conversation was about fishing and cooking, and it was still part of the game. In line 1, the participant used a routine:

1) Line 1: *I made an interesting food.*

\(^{225}\) Skill name of finding fish.
The reason that 1) could be seen as a routine was that, first, it was spoken in a specific gaming situation, and second, the participant used the sentence as a single word. More specifically 1) can be divided into words as below:

2) Line 1: *(I made) (an) (interesting) food.*

*Food* in 2) is a game terminology and the most important word in this sentence. In other words, *food* can be a new task. We have observed that routines would be acquired under a new task. So we can say that *food* is a new task and 2) is a relevant routine. After acquisition of routines, chunks in the routines are supposed to be noticed. If we keep speaking of this process, the words in brackets indicate words or word combinations (chunks) in the lexical approach perspective. These chunks will be used in a different situation in the future in order to construct different sentences with the same chunks.

This is the first finding in this conversation. And the first finding reflects that a language development process may exist in the game *WoW*. A game terminology → routine → chunk → new sentence. In 3), the participant shows a new grammatical function with a sentence of Lines 1 and 2.

3) Line 1+2: *I made an interesting food, Grilled Squid.*

*An interesting food* and *Grilled Squid* were apposition. This is the second finding. Of course the participant was not aware of “apposition” at all. Since he was learning in a natural situation, he was not conscious of grammatical knowledge. If he was learning in the classroom, he would have consciousness about grammar.

In 4), same pattern with 1) and 2) appeared; thus it was a routine:

4) Line 3: *(I got) (a) (new) skill.*
In 4), skill was a game terminology and the important concept in this sentence. As mentioned earlier, skill is a new task. Then we get a routine: I got a new skill. And this routine is going to be divided into chunks, such as I got, a, and new. Each chunk is then going to be reused in a different situation, and it will be included as a chunk in a new sentence. This progression is hypothetical; however, exploring this progression is a main purpose considered in this study.

In line 6, interesting should be observed carefully:

5) Line 6: interesting?

The participant used interesting as an adjective. Correctly speaking, the adjective in 5) was a “predicative.” In contrast, the interesting used in line 1 was an “attributive” adjective. We can say that the participant understood the usage of the adjective interesting. This is the second finding.

All in all, in conversation 17-2, the participant used routines that were related to the game and included game terminologies. Grammatically, he demonstrated appositions and attributive and predicative use of adjectives. The following table 34-2 sums up this section’s description.

Table 34-2. Findings in conversation 17-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 1, I made an interesting food. → Game related expression</td>
<td>Game routine Food = Grilled Squid</td>
</tr>
</tbody>
</table>

226 In conversation 12, lines 36 and 38, the participant used useless as attributive and predicative.
line 2, *Grilled Squid* → Game terminology
line 3, *I got a new skill.* → Game related expression
line 4, *Find fish* → Game terminology
line 6, *interesting* → adjective
(Apposition)
Game routine
Skill = Find fish
Different use of *interesting* from line 1

Function
line 1 → *I made*
line 3 → *I got*
line 1 → *interesting*
line 6 → *interesting*
Show-off
Show-off
Attributive
Predicative

Significance
There were 2 findings in this conversation. First, there was hypothetical language development. Second, the participant could subconsciously tell the difference between “attributive” and “predicative” in adjective *interesting*

Before we finish this conversation, we need to explain more about hypothetical language development in the game *World of Warcraft*. When he met a new task, the participant often used one-word utterances that were game terminologies. The game terminologies were normally a single noun word; these utterances looked simple, but they had a potential to function in various ways. For example, the word “refrigerator” is a simple language form, but it has a potential to be used in many different situations, such as “Chill the whisky in the refrigerator,” “Put the leftovers in the refrigerator,” “Defrost a refrigerator,” etc. So if you happen to know a game terminology, it would create many utterances in game relevant situations. Considering those utterances are related to the
game, we can call the utterances “routines.” In this sense, a game terminology is like a seed that grows roots, a trunk, branches, and flowers. In this study, it will be called a culture noun because a game terminology is culturally bounded in the World of Warcraft game. In the second stage after learning a game terminology, the participant used two-word or three-word utterances. These forms could be “downsized routines.” Because of his lack of language ability, the participant could not express his intentions with a full sentence. Instead he used two-word or three-word utterances as “routines” in order to express his intentions. After this stage, and after his language development was growing, the participant began to use full sentences as routines. And then he began to notice “chunks” in a routine. After that, he used noticed chunks to elaborate full sentences. His language had developed substantially at this point.

However, there were grammar problems to solve in this hypothetical language development. Here it is necessary to explain how grammar emerges. Since sentences were built by noticed chunks, “chunk + chunk = a sentence,” it would be difficult to conclude that the participant had the ability to structure a sentence grammatically. Finally, the participant has had subconscious awareness that grammar is needed in an interface where a chunk meets a chunk. At this period, we can say that his grammatical knowledge could be increased. In summary, when he went through a new task in the game, the participant could pick up a game terminology. When he was in the beginning level of the English language, the participant used the game terminology as a one-word utterance. Through two-word or three-word utterances, he began to use routines as full sentences. As time goes by, the full sentence would be divided into several chunks. And finally, he used those chunks in order to construct a new sentence. And here grammar is needed.
There are two more things to mention about this process. First, if his language knowledge and game knowledge improve, the participant doesn’t have to pass the two-word or three-word utterance stages. He can go directly from one-word utterances to a routine. Second, the one-word utterance stage can appear whenever he faces a new task. This means that game knowledge influences his language development. So cultural knowledge and linguistic knowledge are both important to language development.

4.5.4 Grammar emerging period

In this period, the participant knew how to use conjunction and relative pronoun in constructing complex sentences.

In the following conversation, the participant was explaining the skill of *Find Fish*. He explained what type of skill it was and how to use it.

Table 33-3. *Conversation 17-3*

<table>
<thead>
<tr>
<th>Time</th>
<th>Channel: Party</th>
<th>Chat</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/17 22:16:13.957</td>
<td>Hchannel: Party</td>
<td>Party</td>
<td>Detre: i can find a good place for fishing like find vein or herb&lt;sup&gt;227&lt;/sup&gt;..</td>
</tr>
<tr>
<td>3/17 22:16:37.305</td>
<td>Hchannel: Party</td>
<td>Party</td>
<td>Lovekill: so it's a skill for fishing?</td>
</tr>
<tr>
<td>3/17 22:16:56.588</td>
<td>Hchannel: Party</td>
<td>Party</td>
<td>Detre: i learned from stuff which i fished</td>
</tr>
</tbody>
</table>

<sup>227</sup> *Like find vein or herb* was grammatically wrong, but it was a formation of two game terminology chunks combined together (*Find Vein + Find Herb*). The participant’s intention was *like finding veins or herbs*. 
In this conversation, the participant continued to utter in full sentences. Line 1 utterance was structurally too complicated to consider as routines, but if we take a careful look, it has some evidences of routines. Let’s observe line 1:

1) Line 1: *I can find a good place for fishing like find vein or herb.*

First of all, *I can find a good place for fishing* is a routine. Since *fishing* was related to a task, the participant can easily find *I can find a good place for fishing* during the task. The next observation was *like find vein or herb.* The participant used the conjunction *like.* Although he failed to use a clause after *like*, his intentions were understandable as below:

2) *like find vein or herb* = *like (I can) find (a good place for) vein or herb.*

*Vein or herb* was a task. Automatically we can assume that *(I can) find (a good place for) vein or herb* was a routine for the task. Therefore, the intentions of the participant could be formulized as the following:

3) *I can find a good place for fishing* + *‘like’* + *(I can) find [a (good place for) vein or herb]*

   Routine         conjunction         routine

This is the first finding. In this conversation, the participant used a structure of “routine + routine” as a long sentence. The second finding is that he used the conjunction *like* for the first time. Then what about the structure of line 5?

4) Line 5: *I learned from stuff which I fished.*

In line 5, the participant was talking about fishing, which was a name of a task. But we cannot find a relevant routine about fishing. Instead we can find a structure “chunk + chunk” in order to build a sentence. We can draw inferences from two
grammatical forms, from and which. First, from helps a chunk, I learned, connect with another chunk, stuff. As mentioned earlier, the participant could create a new sentence at this time through the combination of chunks together. And grammar would emerge in order to combine a chunk with another chunk. This happens here in line 5. The participant used a preposition from for the combination. Second, a relative pronoun, which, helps a chunk, stuff, connect with another chunk, I fished. Through the following formula we can determine if line 5 was a routine or not.

5) (I learned) from stuff + which + (I fished).

Based on the formula, there is no evidence that the sentence was a routine. Rather it could be seen that the participant used the chunks and grammar tools from and which in order to structure a sentence. Therefore, this is determined as creativity, which the participant showed with his grammatical knowledge. Here there are two findings. The first is “creativity,” in which the participant used chunks to construct a sentence. The second is “grammar emerging,” in which the participant used a preposition, from, and a relative pronoun, which, for first time.

In sum, the participant used new grammar tools in order to build a sentence in this conversation. The grammar tools helped to build a structure “routine + routine” as a sentence like 3), and to construct a sentence with previously acquired chunks, like 5). The following table 17-3 sums up the findings as follows:

Table 34-3. Findings in conversation 17-3

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
</table>
4.5.5 Advantages and limitations of natural setting period

So far we described that the participant was very successful with his language development. However natural setting has limitations as well as advantages. Let’s describe the two aspects in this period. In Table 33-4, the participant was interviewed. He confessed that he could not learn in natural setting. In Table 35-1, the participant was overwhelmed by the other player’s game knowledge. He couldn’t talk even though he had a good chance to learn more language through Inference A and B Notices. In Table 35-2, his language showed that it was proper for a small talk but no more. In Table 35-3, the participant received negative feedback from an other player because what he said was not understandable to the player. But it was not enough for a better language performer. In Table 35-4, the participant produced short words in his interaction. It is an aspect of
natural conversation. In Table 37-1, once again the participant brilliantly demonstrated his strategies to construct sentences, depending on chunks and routines. However, he could not go beyond prefabrication (chunks + routines).

In the following conversation, the participant asked for more time to deal with personal issues.

Table 33-4. *Conversation 17-4*

<table>
<thead>
<tr>
<th>Line</th>
<th>Time</th>
<th>Chatroom</th>
<th>User</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/17 22:39:03.500</td>
<td>Party</td>
<td>Detre</td>
<td>spores give me 2 more quests, right?</td>
</tr>
<tr>
<td>2</td>
<td>3/17 22:39:17.331</td>
<td>Party</td>
<td>Lovekill</td>
<td>it should</td>
</tr>
<tr>
<td>3</td>
<td>3/17 22:39:44.235</td>
<td>Party</td>
<td>Detre</td>
<td>k..can u wait a little for me=w=...</td>
</tr>
</tbody>
</table>

Conversation 17-4 was short and included almost nothing special. Line 1 was a game-related routine because *spores* and *quests* were both game terminologies. Line 3 was an ordinary routine, which we could often use in everyday life. However, conversation 17-4 is worth describing. The first finding is that the participant began to use two different situational routines. That is, one routine was game-related and the other was everyday-life based. What does it mean “to use two different situational routines?”

As mentioned earlier, a routine was supposed to be divided into small components, chunks. A chunk from routine A and a chunk from routine B could be put together in order to create a new sentence. In this process, grammar emerges. So we can find the participant’s grammatical development more than ever before in this conversation. Let’s see Line 1.

1) Line 1: *Spores give me 2 more quests, right?*
Spores and quests are game terminologies. If he gathered spores required for a quest, the participant would get two more quests\(^{228}\). Considering this, we could easily perceive that 1) is a game routine. Spores was a plural form. The participant did not put -s suffix at the end of the verb give. It was grammatically correct. About 2 more quests, he correctly put the -s plural suffix at the end of the noun quest. Before this conversation, the participant had had -s suffix problems. They were untouched and almost fossilized because of lack of negative feedback from other players. Such grammatical errors from the participant were probably considered as “minor errors” because the errors did not prevent him from communicating with other players. There is one more point to mention about his grammar. Let’s look at line 3:

2) Line 3: Can you wait a little for me?

2) is a routine. But it is not a game-related routine but an ordinary routine. Grammatically speaking, 2) is an interrogative sentence.

Thus far in the research, the participant has spoken several interrogative sentences; the following indicated his word order in sentence structuring.

3) Conversation 10-2, line 1: I need to take this?
4) Conversation 10-3 line 12: We need to make home here?
5) Conversation 11-1 line 3: Do you want this?

\(^{228}\) In World of Warcraft, there is a system called reputation. Every race and faction has its own reputation, and players can increase their reputation by finishing required quest lines or killing opposing factions. Reputations are divided into eight levels: Hated-Hostile-Unfriendly-Neutral-Friendly-Honored-Revered-Exalted. As the reputation becomes closer toward Exalted, multiple benefits are given, such as: cheaper repairs, access to racial items, and faction mounts. If the reputation develops toward Hated, then the race will attack the player. In this conversation, the participant started out as Unfriendly with the faction Sporeggar, and in order to receive additional quests he needed to develop his reputation up to at least Friendly.
6) Conversation 14-2 line 17: *It’s your quest?*
7) Conversation 16-2 line 11: *You wanna make teams other way?*
8) Conversation 17-2 line 6: *interesting?*

In spoken language, adding a question mark after the declarative sentence could be considered as an interrogative sentence. In this sense, sentence structures 3), 4), 6), 7), and 8) did not have any problems. But in 5), the participant used the *do* auxiliary verb and structured a grammatically perfect interrogative sentence. In this conversation, he used *can* for the first time in order to structure an interrogative sentence. And he showed that he knew how to use an auxiliary verb *can* in order to make an interrogative sentence. How could he solve his grammatical problems and turn out to be a “better grammarian?”

The participant was interviewed about this question. He said that he made the best effort he could to correct his grammatical errors and that he was still working on them at that time. When he was asked the reason why he suddenly had interest in language, he answered that L2 learning is the second identity learning. When he was poorly communicating with other players, he felt that his ego had been hurt. That’s why he had to do something to feel better as a person. What he had done for language practice was that he required much negative feedback from other players and read grammar books if necessary. However, what he had done was to become a better person in the *WoW* game, not in order to become a successful language learner in the classroom. This is the second finding. Specifically speaking, he used his own learning strategies for language learning.

In sum, the participant used various situational routines in this conversation. This process helped him develop his grammatical knowledge, and he had a different attitude
toward L2 performance. It also encouraged him to use his own learning strategies. The following are the findings of Conversation 17-4.

Table 34-4. *Findings in conversation 17-4*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 1, → Spores give me 2 more quests</td>
<td>A game-related routine</td>
</tr>
<tr>
<td>line 1 → give</td>
<td>Grammatically correct</td>
</tr>
<tr>
<td>line 1 → 2 more quests</td>
<td>Grammatically correct</td>
</tr>
<tr>
<td>line 3, → can u wait a little for me?</td>
<td>An ordinary routine</td>
</tr>
<tr>
<td>line 3 → can</td>
<td>Used auxiliary verb <em>can</em> in</td>
</tr>
<tr>
<td></td>
<td>interrogative sentence</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 1 → spores give me 2 more quests</td>
<td>Confirmation</td>
</tr>
<tr>
<td>line 3 → can you wait a little for me?</td>
<td>Request</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There were two findings in this conversation. The first is that the participant had opportunities to develop his grammar. He used various routines in conversation, and they would lead him to construct new sentences with noticed chunks from routines. The second finding is that he began to use his own learning strategies for good language performance. In a sense, “natural learning” cannot give him full satisfaction to become a better language user because he began to depend on learning methods similar to formal learning.</td>
<td></td>
</tr>
</tbody>
</table>
In the following conversation, the participant was playing the game with the researcher but did not speak at all. In the conversation, a guild member, Jerund, offered to run through a five-man dungeon for them. Since Jerund was maxed level and a very well-g geared shaman, it would take him around 10 minutes to clear the dungeon. I wanted to introduce a strategic conversation between Jerund and the researcher in a dungeon run.

Table 35-1. *Conversation 18-1*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/21 00:36:38.877</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>2/21 00:36:43.236</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>3/21 00:36:45.987</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>4/21 00:36:50.462</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>5/21 00:36:56.892</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>6/21 00:37:22.195</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>8/21 00:37:36.671</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>10/21 00:38:12.076</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>11/21 00:38:18.009</td>
<td>Hchannel:Party</td>
</tr>
<tr>
<td>12/21 00:38:29.358</td>
<td>Hchannel:Party</td>
</tr>
</tbody>
</table>
The guild member Jerund’s knowledge of *World of Warcraft* was superior to that of the participant and the researcher. Jerund offered to run a low-level dungeon (level appropriate for the researcher and participant) for the researcher and participant; both of them were very happy with Jerund’s offer. During the dungeon run, Jerund explained the tactics and strategies to the researcher and the participant, and they observed the process. When learning something, observing could be considered as a learning strategy. In this instance, the participant and researcher listened to Jerund very carefully, because they both know he was an experienced player and wanted to learn his strategies.

Language is a mediation tool. Jerund’s explanation was entirely in language; therefore, his language output becomes input for the participant. As knowledge of the game develops, game-related terminologies become comprehensible input to the participant. Thus, even though the participant did not speak in conversation 18-1, the

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The participant and the researcher were ready.
observation contributes to his language development. In this sense, we can say that the
*WoW* society is a perfect place to learn L2. It gives a variety of opportunities, such as
speaking, practicing, noticing as in this conversation, etc.

In this case, what type of language will the participant notice? Unfortunately, we
do not have evidence that he decisively noticed certain language forms in this
conversation. However, we can draw two inferences about his noticing. The first is that
he tended to focus on game-related language forms. The second is that he began to be
interested in language itself. Looking back to Conversation 17-4, we know that he began
to positively change his attitude toward L2. In this conversation, for convenience,
“focusing on game related language forms” will be called “Inference A.” “Changing his
attitude toward L2” will be called “Inference B.”

Let’s observe line 2:

1) Lines 2 + 3, Jerund: *I forgot about this boss, any clue?*

People often make mistakes like Jerund did, *forgetting about a boss.* He intended
to explain about *this boss,* but he forgot; however, he knew how to get over such an
embarrassing situation by asking *any clue?* According to Inference B, the participant was
not as he had been. Now he was interested in Jerund’s communication strategies, like *any
clue.* So if he was ready to notice, the participant might pick up *any clue?* We can call
this the Inference B Notice.

2) Line 5, Jerund: *Let’s try it.*

As Jerund did not know the strategy for the boss fight, he used this phrase to
indicate that he would attempt to engage in a fight. *Let’s try it* could also be observed as a
routine. This is another attempt on his part to get over embarrassing moment. When
Jerund asked for help from Lovekill, Lovekill answered “not really” and couldn’t help Jerund. To the participant, 2) could be an appropriate routine to use as a tool for conversation strategy, when he might experience such an embarrassing moment and need to get over it. This is another Inference B Notice. In line 6, line 8, line 9, line 10, line 11, line 12, line 13, and line 17, Jerund was explaining the uses of three totems. These are all game related terminologies and game routines. The participant would use Inference A to notice terminologies and routines as far as he could. This is Inference A Notice. Among lines 6 through line 17, line 11 and line 12 are combinations of Inference A and Inference B. Let’s see line 11 first.

3) Line 11: air, I mean~

In 3), air was related to the game, and I mean was connected to everyday life situation. That was why line 11 can be a combination of both Inferences. Jerund meant to say air but accidently said wind instead, and he used I mean to correct his error. I mean is an ordinary routine. It is one of the conversation strategies used when someone makes a mistake and they can correct the mistake by themselves. Line 12 can be another combination of Inference A and Inference B.

4) Line 12, Jerund: in case it cast some deadly spell

In line 12, the in case phrase is a chunk to use in order to prepare for something that may happen.

To the participant, the in case chunk can belong to Inference B Notice. It cast some deadly spell is a game routine, which belongs to Inference A Notice. There are two findings in this conversation, which are Inference A and Inference B.
In summary, the participant was not speaking in this conversation. However, he confronted a situation in which he could learn more about the game knowledge and terminologies; thus his language would develop also. The following table sums up this conversation, but the form and function section will be excluded and only significance will be presented.

Table 36-1. Findings in conversation 18-1

| Significance | There are two findings in this conversation. For convenience, we used two terms: Inference A and Inference B. When the participant noticed game related language forms, it is called “Inference A Notice,” and when he noticed language forms on the basis of everyday life, it is “Inference B Notice.” Lastly, we found that the World of Warcraft society is a good place to notice language forms according to Inferences A and B. |

The following conversation was about the participant finding a team to do the quest Ring of Blood. From this point on, the participant’s character name was Railgun. He began to play without the researcher more often from this point in the research.

Table 35-2. Conversation 18-2

2. 3/22 18:42:30.974 Railgun: hi
That the participant began to play without the researcher more often could be considered as a language challenge for the participant. Since the interlocutor had changed, the participant would have to deal with new game knowledge and new language forms, which would result in his language development. This could be another benefit of *World of Warcraft* society in terms of language learning.

Let’s observe lines 4, 5, and 7:

1) Line 4, Bazel: *are you doing RoB?*

2) Line 5, Railgun: *I wanna do.*

3) Line 7, Bazel: *hang* 231

In 1), *are you doing RoB?* was a game routine. In 2), the participant answered *I wanna do*, which was a game routine. Though *I wanna do* did not include any game terminologies, we could guess that line 5 was going to be used for an answer to a game offer. That’s why it was a game routine.

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230 Ring of Blood is a quest where players need to defeat 5 mini bosses in a row. The reward will be items + money + experience points.

231 hang in there
Line 4 and line 5 can be a routine pair like *How are you?* and *I’m fine*, a greeting routine pair. According to conversation analysis, this is a part of the game’s conversation structure. Each routine in line 4 and line 5, and a routine pair, appeared for the first time in this conversation. In this way, the beginning of a new task or the start of a new task with new people requires the use of new language forms and new game strategies. This happens in the real world, too. That’s why the *World of Warcraft* society is a real society. This is the first finding.

In line 7 in 3), Bazel used an interesting language form; *hang*. It was a short word of *hang in there*. In *World of Warcraft*, this type of expression was used many times in order to save time. In the real world, the same phenomenon could occur to save time. For example, one could say *I smoke. You?* but one would not say *I smoke. Do you smoke too?* The second is grammatically correct, but social norms do not require a perfect sentence. The use of *hang* reflects a social norm in the game. The participant would notice *hang* in near future because he wanted to be a member of the game society. He may believe that *hang* can be a proof or certificate to be an in-group person. According to language socialization, linguistic knowledge and sociocultural knowledge are interdependent in the real world. In *World of Warcraft*, the participant tends to learn *hang* in terms of linguistic knowledge (*hang* is a short version of *hang in there*) and sociocultural knowledge (*hang* is a social norm). In this way, the *World of Warcraft* society is a very authentic real world. This is the second finding.

In sum, the participant began to meet new people and began a new journey in the *World of Warcraft* community. This change would influence the participant’s language development. Specifically speaking, the participant would change his attitude and
behavior in order to deal with new situations, including new people. Language, a mediation tool, would be intervened in the process of dealing with situations or people.

Language change and development are necessary to take care of them both.

Table 36-2. *Findings in conversation 18-2*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 5, <em>I wanna do</em> → Game routine</td>
<td>First appearance</td>
</tr>
<tr>
<td>line 7, <em>hang</em> → Shorten version of <em>hang in there</em></td>
<td>Social norm</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>Line 5 → <em>I wanna do.</em></td>
<td>Answer to a game offer</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There are 2 findings. First, there is a routine pair between Bazel and the participant. Second, there are language forms (e.g., <em>hang</em>) as social norms in the <em>World of Warcraft</em> society. In a word, both findings implied that the <em>World of Warcraft</em> society reflects the real word.</td>
<td></td>
</tr>
</tbody>
</table>

In the following conversation, the participant meets multiple players in order to run a dungeon. One of them provided negative feedback to the participant’s utterance.

Table 35-3. *Conversation 18-3*

The participant had shown traces of fossilization, because he did not receive negative feedback from other players in conversations 15, 16-1, 17-1, and 17-4. However, in this conversation he received negative feedback from a different player. In line 4, the participant asked other players about the purpose of the group formation.

1) Line 4: *what this group?*

In line 5, Wargrider did not understand the participant’s question, and in line 6 Gromulock told the participant he was missing a *for*.

2) Line 4: *what this group [for]?*

The participant should have structured the sentence as 2). Grammatically, the participant committed an error not only with *for*, but also needed an *is* between *what* and *this*.

3) Line 4: *what [is] this group [for]?*

But the players did not provide negative feedback with *is*, because they were not aware of his minor grammatical mistake. Actually, *is* is a linking verb that connects between words; thus it does not function as an important factor when understanding the sentence. Therefore, the negative feedback was given to *for* and not *is*. This is the first finding. Usually L2 adults do not receive negative feedback from other native adults unless errors are decisively important to understand L2 adult utterances. That is one of
the reasons L2 adults are very slow to learn a target language. So if an adult L2 learner wanted to get negative feedback for better language performance, he or she might depend on formal learning in the classroom.

Negative feedback will impact the grammatical knowledge of the participant in the future, because through this conversation, his raising of his grammar consciousness would have occurred.

In sum, this was the first time the participant received negative feedback about grammar from other players. Additionally, grammar correction did not occur where the utterances were understandable. The following are the findings in this conversation.

Table 36-3. Findings in conversation 18-3

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td></td>
</tr>
<tr>
<td>line 4, <em>what this group?</em> → [is]</td>
<td>Ignored, understandable</td>
</tr>
<tr>
<td>line 4, <em>what this group?</em> → [for]</td>
<td>Negative evidence</td>
</tr>
<tr>
<td>Function</td>
<td></td>
</tr>
<tr>
<td>line 4 → <em>what this group?</em></td>
<td>Question</td>
</tr>
<tr>
<td>Significance</td>
<td></td>
</tr>
</tbody>
</table>

There was one finding in this conversation, regarding negative feedback. The important point about negative feedback was that, as far as grammatical errors are left untouched, language development cannot be fully expected. There exists a distinctive difference between natural learning and formal learning.

In the following conversation, the participant talked about how and where he obtained his weapon.

Table 35-4. *Conversation 18-4*
The participant was playing *World of Warcraft* without the researcher in conversation 18-4. Instead, he was playing with a different gamer, Wargrider. Skimming the utterances between the participant and Wargrider, the participant’s language forms could be noticed as very disappointing. His utterances were one word or two words. Considering the language development that the participant had shown over the course of a year, these one- or two-word utterances could be disappointing. However, if the dialogue is read from a different point of view, it can be surprising. First, in lines 1 and 3, Wargrider and the participant gave and took each turn with a full sentence. In line 1, *I want ur axe railgun* and in line 3 *This is a quest reward*. The utterances look fine so far. In lines 4 and 5, Wargrider started to use single words. Then the participant responded

---

232 Spoken after seeing the participant's axe.
233 Obtained from the quest *Ring of Blood*.
234 The expression was said out of envy.
235 Geographic name
236 A region after Zangarmarsh. Normally players will level in Zangarmarsh and move on to Nagrand. Both regions are next to each other but the quest sequence also moves from Zangarmarsh to Nagrand.
with single words, too (see lines 6 through 8). Technically speaking, Wargrider and the participant were talking in the same level of register. This is the only finding, but it seems that the participant showed his natural way of using language.

In summary, the participant’s language was just enough to communicate with other players. At this time, the participant was producing very naturally and appropriately in terms of register. In line 3 he used game routines, and in lines 7 and 8 he combined a geographic name and a chunk to form a sentence. However, excluding the prepositions indicated that his language was not at the sophisticated level.

Table 36-4. Findings in conversation 18-4

<table>
<thead>
<tr>
<th>Significance</th>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is one finding in this conversation. The participant could appropriately register his language with single words like Wargrider. Thus we can say that he developed a sense of natural use of language.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The participant had played *World of Warcraft* alone for about a two-month period of time. In the following conversation, the participant, Railgun, was an undead DeathKnight. His game knowledge would be at the higher end of the research, and he also knew his role when running dungeons. His language was in the mid stage, but he did not have any problems communicating with other players. In conversation 19-1, Felero invites the participant to run a dungeon, and another player, Kalethas, also appears.

Table 37-1 *Conversation 19-1*

1. 3/23 21:42:44.393  Felero whispers: wanta join?
The participant continued to play without the researcher and engage with other players in *World of Warcraft*. As the situation changed, the participant’s language and communication skills also changed.

Let’s observe the participant’s line 2:

1) Line 2: *what would u do?*

In 1), the participant said *what would u do?* This could be questioned if *what would u do?* was used as a routine or as a creative expression. In order to discuss this, we

---

237 Name of dungeon.

238 Asking the participant if he wanted to run the dungeon.
need to look for his previous uses of the question pronoun, *what*. The participant used the interrogative *what* three times before this conversation:

2) Conversation 9-4 line 11: *What’s this?*

3) Conversation 10-2 line 9: *What’s the quest name?*

4) Conversation 10-3 line 5: *What [do] we need?*

In 2) and 3), he used *what* in the *what* + be~ structure. In 4), he was supposed to use the dummy auxiliary *do* after *what*, but he failed. From 4) we could guess that the participant did not have grammatical knowledge about use of the dummy auxiliary *do*. Then, in conversation 19-1, he used a modal verb *would* in 1). Thus we cannot decide that the participant had acquired the “dummy auxiliary verb *do*” or the “modal verb *would*.” In this sense, the participant used *what would u do?* as a routine.

Line 4 is very interesting to observe:

5) Line 4: *that's good but can u wait a minute?*

The participant produced line 4 with a structure “routine + grammar(*but*) + routine.” We remember that he built a sentence in two ways in Conversation 17-3. One was a structure, “routine + grammar (*like*) + routine” in line 1. The other was a structure, “chunk + grammar (*from*) + chunk + grammar (*which*) + chunk” in line 5. Here we need to compare line 1 in Conversation 17-3 with line 4 in Conversation 19-1. For convenience, let’s rewrite those two sentences.

6) Conversation 17-3, line 1:

*I can find a good place for fishing* + *‘like’* + *[I can] find a (good place for) vein or herb*

routine 1                conjunction                routine 2

7) Conversation 19-1, line 4:
In 6), the participant constructed a complex sentence. The first routine in 6) was a main clause, and the second routine in 6) was a subordinate clause. On the other hand, in 7) he built a compound sentence. The first routine and the second routine in 7) were all main clauses. Due to the characteristics of conjunctions, clauses were differently distributed functionally. *Like* was a subordinating conjunction, and *but* was a coordinating conjunction. The participant made a compound sentence with a routine plus a coordinating conjunction. This is the first finding.

Now let’s compare line 9 in Conversation 19-1 with line 5 in Conversation 18-2:

8) Line 9: *i wanna do just one quest.*

9) Conversation 18-2 line 5: *I wanna do.*

*Do* in 8) and *do* in 9) were the base forms *do* after infinitives. However, they were functionally different. *(To) do* in 8) was the object of the main verb *want*, and *(to) do* in 9) is a proverb. It was already mentioned that *I wanna do* was a routine in conversation 18-2.

Then what is *I wanna do just one quest*? Is it a routine, creativity, or a combination of routine and creativity? Let’s see the following:

10) *I wanna do* + *just one quest.*

In line 5 of conversation 18-2, the participant used *I wanna do* as a routine. In line 9 of conversation 19-1, he used *just one quest* as a chunk. He built a sentence with a structure, “routine + chunk.” This is the second finding.

Finally, let’s observe line 11:
11) Line 11: *real quick*

Line 11) was similar to a two-word utterance, but it was a single routine. Grammatically speaking, he should say *quickly* (as an adverb), but *real quick* is idiomatically used in speaking. “Idiomatically” implies routine. Thus, *real quick* was a routine. This is the third finding: use of idiomatic expression.

In sum, in conversation 19-1, the participant used three different kinds of structures to build a sentence or utterance. He was very active in constructing routine-based, chunk-based, and idiom-based expressions. And there was one coordinating conjunction, *but*. The following are the findings for conversation 19-1.

Table 38-1. *Findings in conversation 19-1*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 2 → <em>what would you do?</em></td>
<td>Routine, first use of <em>would</em></td>
</tr>
<tr>
<td>line 4 → <em>that's good but can u wait a minute?</em></td>
<td>Coordinating sentence</td>
</tr>
<tr>
<td>line 11 → <em>real quick</em></td>
<td>Idiomatic expression, routine</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 2 → <em>what would you do?</em></td>
<td>Question</td>
</tr>
<tr>
<td>line 4 → <em>that's good but can u wait a minute?</em></td>
<td>Excuse</td>
</tr>
<tr>
<td>line 8 → <em>can u guys wait a little for me?</em></td>
<td>Excuse</td>
</tr>
<tr>
<td>line 9 → <em>i wanna do just one quest</em></td>
<td>Request (favor)</td>
</tr>
</tbody>
</table>
Significance

There are 3 findings in this conversation. First, “routine + coordinating conjunction + routine,” second, “routine + chunk” and lastly, idiomatic expression. In this respect, the participant mainly depended on prefabrication.

4.5.6 Necessity of formal learning period

In Table 37-2, whatever he expressed, the participant showed to only use a small portion of grammar. In Table 39-1, simple sentences were typical in the Wow game. In Table 39-3, Zadaria’s language was grammatically analyzed. The participant couldn’t learn such grammar in the Wow game. In Table 40-2, we reached a conclusion that the participant’s language proficiency was just right for a small talk.

In the following conversation, Zadaria asked the participant, who had just finished running a dungeon, to join a quest line to obtain a specific mount.

Table 37-2. Conversation 19-2

1. 3/23 23:50:52.809 Zadaria: (whispers) are you interested in doing the quests for a neatherwing drake? epic mount?
3. 3/23 23:51:41.477 Zadaria: (whispers) would be the fast flying mount you get out of the quests
mount?
5. 3/23 23:52:34.425 Zadaria: (whispers) ya it's for the fast one out in sanctum of the stars
7. 3/23 23:53:11.046 Zadaria: (whispers) it's a chain of 4 or 5 quests pretty easy but the last one is a group quest
(3/23 23:53:32.658 Zadaria has invited you to join a group.)
10. 3/23 23:53:37.279 Zadaria whispers: i'm going there now
11. 3/23 23:55:13.100 |Hchannel:Party|h[Party]|h Zadaria: i did the quests on my mage they are pretty easy
12. 3/23 23:55:47.601 |Hchannel:Party|h[Party]|h Railgun: well, this is the first one for me, so i didn't know about that

It was notable to observe that the participant’s language had greatly developed thus far. In line 2, the participant structured a sentence based on chunks:

1) Line 2: \[ I + just + bought + from + here. \]

split chunk grammar(prep.) chunk

For the first time, the participant used a “split chunk” to build a sentence. He had acquired \textit{just} as independent element. In line 9 of Conversation 19-1, he already used \textit{just} in \textit{I wanna do just one request}. Like this, he could use \textit{just} whenever he wanted to use it. In this sense, \textit{here} would be regarded as a similar element. However, the participant
preferred the position of *here* at the end of a sentence. So we categorized *here* as chunk, even though *here* was one word. In sum, the participant produced line 2 with a structure, “split chunk + grammar + chunk.” This is the first finding.

In line 4, the participant used the *there is* structure correctly:

2) Line 4: *Is there a quest for the flying mount?*

If we analyze line 4, it will be as follows:

3)  

<table>
<thead>
<tr>
<th>Kreuzung</th>
<th>Syntax</th>
<th>Punkt</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Is there a quest</em></td>
<td><em>for</em></td>
<td><em>the flying mount</em></td>
</tr>
<tr>
<td>creativity (interrogative)</td>
<td>grammar (prep.)</td>
<td>chunk</td>
</tr>
</tbody>
</table>

*Is there a quest* was a routine. Specifically speaking, it is an interrogative creativity. We can explain why the *is there*– pattern is a creativity. In lines 5 and 6 of Conversation 10-6, the participant used the *there is* form once.

4) Line 5+6: *Maybe there are a lot of draenei.*

At this time in the research, the participant used the *there are*– form as a chunk. As time went by, and as he often used *there are*– pattern, we presume that he could adjust the *there are*– pattern according to its environment into *there is*– or *is there*–. This indicated that the *there are*– pattern was no longer a chunk, but an acquired form.

Thus, the main part of sentence 2) can be seen as creativity. And the whole structure of 2) was “creativity + grammar + chunk.” This was the first example to put creativity and chunk together with the help of grammar. This is the second finding.

Let’s continue with line 9:

5) Line 9: *where can I get the quest?*

<table>
<thead>
<tr>
<th>Kreuzung</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>where can I</em></td>
<td><em>get the quest</em></td>
</tr>
<tr>
<td>creativity (interrogative)</td>
<td>routine</td>
</tr>
</tbody>
</table>
Where can I~ was an interrogative creativity because we believe that the participant acquired the where can I~ pattern. We can explain this in detail. The participant used can and where together in a sentence in conversation 7, line 3.

6) Conversation 7, line 3: do you know where we can completed?

In line 3 of Conversation 7, the participant realized the word order “where + S + can + main verb~” after the do you know~ pattern. It means that he understood both the word orders, “where + S + can + main verb~” and “where + can + S + main verb~,” and that he could use both word orders correctly in appropriate linguistic contexts. That’s why he had had a grammatical knowledge about the where can I~ pattern and acquired the pattern.

Line 12 is a typical example of sentence-making in this period. Let’s observe the following:

7) Line 12:

\[
\text{this is the first one for me, } \quad + \quad \text{so} \quad + \quad \text{i didn't know about that.}
\]

routine plus chunk grammar(adj.) routine

Let’s analyze this is the first one for me. It was divided into this is the first one and for me. This is the first one was a routine. Because it had no game-related vocabulary, we presume that the participant had learned and acquired the expression outside of the World of Warcraft community. It is, therefore, a routine based on everyday life. For me was a chunk because it was hard to consider this is the first one for me as one unit. That was why the first part of line 12 was routine plus chunk. On the other hand, I didn’t know about that was a routine. It could be one unit. When we utter I didn’t know about that, we feel that it comes out right away as one unit. This is the first one for me seems different.
Producing this expression, we can feel a pause between *this is the first one* and *for me*.

Lastly, let’s talk about grammar. Line 12 was a compound sentence. The conjunction *so* connects *this is the first one for me* to *I didn’t know about that*. This is the third finding.

In sum, we can find that the participant used grammar actively to construct sentences, though his grammar only included prepositions and conjunctions. However, uses of routines and chunks mainly occurred in sentence-making. The following is the table of this conversation’s description.

Table 38-2. *Findings in conversation 19-2*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 2 → <em>i just bought from here</em></td>
<td>Split chunk + grammar + chunk</td>
</tr>
<tr>
<td>line 4 → <em>is there a quest for the flying mount?</em></td>
<td>Interrogative creativity + grammar + chunk</td>
</tr>
<tr>
<td>line 9 → <em>where can i get the quest?</em></td>
<td>Interrogative creativity + chunk</td>
</tr>
<tr>
<td>line 12 → <em>this is the first one for me, so i didn't know about that</em></td>
<td>Routine plus chunk + grammar + routine</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There are three findings in this conversation. First, “split chunk + grammar + chunk,” second, “creativity (interrogative) + grammar + chunk,” and third, “routine plus chunk + grammar + routine.” Each finding reflects active roles of grammar in constructing a sentence. In addition to this, the participant showed the use of a “split chunk” for the first</td>
<td></td>
</tr>
</tbody>
</table>
time and used “interrogative creativity.”

However, ironically enough, the more he used grammar successfully, the more he needed formal learning. Since a very small portion of grammar was used, and since his sentences were basically simple and short, we assume that the participant has to attend formal learning if he wants to produce longer sentences and discourse.

The conversation series 20 does not contain the participant’s language development; rather, it introduces the variety of conversations that the participant engaged in. In the following conversation, the participant was confused about a specific quest item and provided wrong information to Zadaria.

Table 39-1. Conversation 20-1

<table>
<thead>
<tr>
<th>Time</th>
<th>Channel</th>
<th>Party</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/24 00:04:46.331</td>
<td>Party</td>
<td>Party</td>
<td>Zadaria: did you pick up any carcasses?</td>
</tr>
<tr>
<td>3/24 00:05:02.486</td>
<td>Party</td>
<td>Party</td>
<td>Railgun: carcass?</td>
</tr>
<tr>
<td>3/24 00:05:10.866</td>
<td>Party</td>
<td>Party</td>
<td>Railgun: Rocknail Flayer Giblets you mean, this?</td>
</tr>
<tr>
<td>3/24 00:05:20.891</td>
<td>Party</td>
<td>Party</td>
<td>Zadaria: ya but it says carcass</td>
</tr>
<tr>
<td>3/24 00:05:34.447</td>
<td>Party</td>
<td>Party</td>
<td>Railgun: i have 4</td>
</tr>
<tr>
<td>3/24 00:05:44.305</td>
<td>Party</td>
<td>Party</td>
<td>Zadaria: lol use them after we kill</td>
</tr>
<tr>
<td>3/24 00:07:02.338</td>
<td>Party</td>
<td>Party</td>
<td>Zadaria: use another one</td>
</tr>
</tbody>
</table>

239 Quest item.
240 The participant had one, but confused it with a different item and said four.
The participant did not understand the game terminology *carcasses*, so he was confirming the word’s meaning with Zadaria on line 3:

1) Line 3:

*Rocknail Flayer Giblets*  
*<i>u mean</i>, + <i>this</i>?  
routine  
deleted routine

Actually, the item was *Rocknail Flayer Carcass* not *Racknail Flayer Giblets*. The participant was confused between the two items. Thus he was confirming his confusion to Zadaria with *<i>u mean, this? You mean</i>* was a routine. No argument was necessary. But what about *<i>this</i>?* It was a word, but it was a deleted form of *Is this right?* So we will name this a “deleted routine.” This is the first finding.

Let’s observe line 5:

2) Line 5: *I have 4.*

Line 5 is a “S+V+O” sentence pattern. Because it is very short and simple, it doesn’t have to be grammatically processed in the brain. Then it can be a routine. In lines 8+9, the participant realized that he was mentioning the wrong item.

3) Lines 8+9: *That was all. I had only one.*

---

241 Zadaria thought the participant had four *carcasses.*
Line 8 was a “S+V+C” sentence pattern, which did not need grammatical processing in the brain, so it was a routine. Line 9 was a “S+V+O” sentence pattern and was a routine for the same reason.

In this conversation, the participant constructed simple and short sentences with routines. Comparing with Conversation 20-1, we can see that this finding is interesting. In the previous conversation, the participant’s language had developed enough to structure sentences with “split chunk + grammar + chunk,” “creativity + grammar + chunk,” and “routine plus chunk + grammar + routine.” However, in conversation 20-1 he regressed back to using S+V+C and S+V+O sentence patterns, which do not need grammatical processing.

However, it cannot be concluded that the participant’s language development had stopped. Rather, his command of language skill got better, because he was able to use simple sentences to make conversations; therefore, his communicative performance had developed. In fact, the participant consciously used simple forms. He used those forms because they were what he learned from the *WoW* game, which means “natural learning” had taken place. This is a benefit of *World of Warcraft*. And this is the second finding.

Another noticeable development was his use of tense. In line 5 he used a present tense verb, then in 8+9 he used a past tense verb appropriately. Through the use of tense, it is clear that the participant’s grammatical knowledge had increased. This is the third finding.

In sum, the participant used simple sentences such as S+V+C and S+V+O in conversation 20-1. Since he was able to communicate with simple sentences, he must be comfortable enough to talk with others. In a functional perspective, he successfully
conveyed his intention with such simple sentences. In this respect, simple sentences (routines) are handy because they make conversation easy. The following describes the findings in this conversation:

Table 40-1. Findings in conversation 20-1

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 3 $\rightarrow$ you mean, this?</td>
<td>Routine + deleted routine</td>
</tr>
<tr>
<td>line 5 $\rightarrow$ I have 4.</td>
<td>S+V+O, routine</td>
</tr>
<tr>
<td>line 8+9 $\rightarrow$ That was all. I had only one.</td>
<td>S+V+C, S+V+O routine, correct past tense</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 3 $\rightarrow$ you mean, this?</td>
<td>Confirmation</td>
</tr>
<tr>
<td>line 5 $\rightarrow$ I have 4.</td>
<td>Providing confirmed information</td>
</tr>
<tr>
<td>line 8+9 $\rightarrow$ That was all. I had only one.</td>
<td>Confirming and providing with correction of wrong information</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There are three findings in this conversation. First, there is a new structure, “routine + deleted routine.” Second, simple sentences are a kind of characteristic of the WoW game. Third, correct tenses are used in this conversation. Even though he was successful in using simple sentences, the participant seemed to need formal learning if he would want to use rhetorically decent language. A natural setting, like the WoW game, cannot provide such learning.</td>
<td></td>
</tr>
</tbody>
</table>
The participant continued to pursue the quest line for the epic mount. A new player joins his party.

Table 39-2. Conversation 20-2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 3/24 00:16:31.911</td>
<td>[Hchannel:Party</td>
</tr>
<tr>
<td>2. 3/24 00:17:34.857</td>
<td>[Hchannel:Party</td>
</tr>
<tr>
<td>(3/24 00:18:34.662</td>
<td>Notme joins the party.</td>
</tr>
<tr>
<td>3. 3/24 00:18:40.873</td>
<td>[Hchannel:Party</td>
</tr>
</tbody>
</table>

In this conversation, our purpose is to show that situations of World of Warcraft are similar to situations of everyday life. Since this research was based on a “natural environment,” it is meaningful to show how the WoW community proceeds. People do not have unlimited options in conversation but typically follow general language patterns. The first pattern is to greet each other. In line 3, the participant was greeting Notme, a new player, with the following:

1) Line 3: *hi there.*

Thus far, the participant generally used *hi* or *hello* to greet others.

2) Conversation 6, line 2: *Hi*

   line 5: *Hello*

3) Conversation 14-1, line 1: *Hello*

4) Conversation 16-1, line 2: *Hello, people*

5) Conversation 17-1, line 1: *Hey, hi*

---

242 In order to finish the quest, players need to find the NPC who was running around randomly in the area.
6) Conversation 18-2, line 2: Hi

Through greeting language patterns above, we could guess that there were many social interactions between the participant and other game players. This was proof that the World of Warcraft community provided a variety of occasions to the game users and that L2 gamers were exposed to various language interactions. Before this conversation, the participant used Hi two times, Hello twice, Hello, people once, and Hey, hi once. We do not know why he used various greeting language forms. In this conversation he used hi there for the first time. This indicates that he learned how to greet other people warmly.

In sum, this and previous conversations imply that there are many social events in the WoW game, seen through the consideration of various greeting language forms.

Table 40-2. Findings in conversation 20-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>line 3 → hi there</td>
</tr>
<tr>
<td>Function</td>
<td>line 3 → hi there</td>
</tr>
<tr>
<td>Significance</td>
<td>Greeting interaction implies that there exists a society to meet people. The participant belongs to this real society.</td>
</tr>
</tbody>
</table>

In the following conversation, I would like to describe the participant’s pragmatic ability. In the quest line, the participant needed to kill the wandering monster.

Table 39-3. Conversation 20-3
Thus far, the participant’s language development started as one-word utterances and developed into full sentences (e.g., routine + chunk, or chunk + creativity). His language competence and communication skills had substantially increased.

However, in conversation 20-3, the participant had shown a passive attitude toward other interlocutors; he only spoke in line 1. Although he initiated the conversation, the participant yielded the conversational initiative to Zadaria. This conversation is useful to observe the participant’s pragmatic failure. The first possibility about his failure is that the participant did not know how to play the quest in the conversation and asked Zadria for help, so he had no choice except to listen to Zadria’s instruction. For example,
Zadria seemed to catch something for a demonstration in line 9. The second possibility is that the participant had no knowledge about the quest. In line 6, Notme, another player, joined Zadria’s explanation because Notme might have been familiar with the quest. How could the participant join the conversation without knowledge of the quest? The third possibility is what we would like to discuss. Due to lack of language ability, the participant might not respond to Zadria. So far we have shown how much the participant developed his language abilities. His language development was positively described. Despite that, his language abilities were much lower than Zadria’s. For a moment, let’s see Zadria’s language.

1) Line 3: then he has us save some of the babies.
2) Line 5: one more step after that and then the group quest which is to kill a boss
3) Line 7: hardest part is finding the guy to turn the quests in to

In 1), Zadria used causative verb has and inserted a sentence, we save some of the babies, into one declarative sentence. In 2), he used relative pronoun which, bringing information into the sentence. In 3), he used “to-infinitive” in order to explain about the guy. The three grammatical tools (has, which and “to-infinitive”) helped to contain much information in one sentence. The participant couldn’t use his grammatical knowledge in this way. What we want to mention about his limit of grammatical knowledge is that natural learning can hardly support advanced grammar. The participant needs to depend on formal learning if he wants to be at Zadria’s level.

Now let’s look at the participant’s grammatical errors. In line 1, the participant still failed to use an auxiliary verb do.
4) Line 1: *what [do] we have to do?*

Looking back to line 5 of Conversation 10-3, we found that the participant deleted an auxiliary verb *do* as follows:

5) Conversation 10-3, line 5: *What [do] we need?*

Until this Conversation 20-3, he ignored the use of *do* with a question pronoun, *what*. We can then say that an auxiliary verb *do* was not yet acquired.

In sum, the participant did not actively participate in the conversation. The reasons are threefold. First, he listened to only Zandaria’s instructions. Second, lack of game knowledge made him hesitate to respond. Third, because of limitations to his language competence, participation was difficult. The lack of language competence seemed to be the main reason.

Table 40-3. *Findings in conversation 20-3*

<table>
<thead>
<tr>
<th>Significance</th>
<th>Despite the fact that he enhanced his language proficiency, we have to admit that the participant was not competent enough to respond to Zandaraia’s comments. This was the limitation of “natural learning.” The participant needs formal learning in order to go beyond his present abilities.</th>
</tr>
</thead>
</table>

The following conversation was the last conversation in which the participant’s language development was observed. In this conversation, other players, Notme and Zadaria, died couple of times and failed the quest, but they were all at the last stage of the quest. However, the time invested in the quest line took too long for the participant, and he told the other players that he wanted to log out.
In lines 1, 2, 3, and 4, Notme and Zadaria were communicating about the results of the quest. Notme needed 7 minutes in order to recover to normal status. The participant was tired of the quest line and it was very late at night, so he told the other players that he wanted to leave in line 5:

1) Line 5: *sorry guys but I have no more time.*
The participant indicated that he could not finish the quest. Grammatically there were no errors, and functionally his intention was successfully transferred. Considering he was very passive in conversation 20-3, we can say that the participant fulfilled his turn well. His attempt of closing the conversation in lines 9, 10, and 11 was very good, too.

2) Line 9+10+11: Don’t mind. It was fun. Anyway, cya.

He used three utterances to indicate the closure of discourse. They were all routines—three routines perfectly constructed into one discourse. In line 9, he expressed, Don’t be sorry for my leaving. In line 10, he tried to make them feel all right, saying It was fun. In line 11, he attempted to change the topic with anyway. Lastly, he closed his turn, expressing cya. It is a wonderful discourse.

In summary, the participant’s language proficiency was enough to demonstrate closure in conversations, even though he failed to express more serious game issues. The following describes the summary of this conversation:

Table 40-4. Findings in conversation 20-4

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>line 5 → sorry guyz but i have no more time</td>
<td>Grammatically fine</td>
</tr>
<tr>
<td>line 9+10+11 → don't mind. it was fun. anyway, cya</td>
<td>Grammatically fine</td>
</tr>
<tr>
<td></td>
<td>Wonderful discourse</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>line 5 → sorry guyz but i have no more time</td>
<td>Excuse</td>
</tr>
<tr>
<td>line 9+10+11 → don't mind. it was fun. anyway, cya</td>
<td>Closure of conversation</td>
</tr>
<tr>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>The participant’s language proficiency was enough to deal with a small talk.</td>
<td></td>
</tr>
<tr>
<td>He could interrupt the conversation appropriately (e.g., line 5) and</td>
<td></td>
</tr>
<tr>
<td>terminate the conversation well (e.g., lines 9, 10, and 11).</td>
<td></td>
</tr>
<tr>
<td>However, he needs formal learning if he aims at, for example, a good job.</td>
<td></td>
</tr>
</tbody>
</table>

Two months had passed since the conversation 20 series. The purpose of introducing this conversation was to observe the participant’s language development. It has been a year since the research was originally conducted. At the beginning of the research, the participant’s language ability was not observable due to his silence, and by August 2008, the participant's language was observable. Conversation 21 was conducted in May 2009; thus, including the excluded data, it has been a year since the participant played *World of Warcraft*. In this conversation, the participant begins the conversation as Railgun (DeathKnight, undead) and changes his character to Retre (Paladin, bloodelf). The researcher was not in the conversation, and the participant's game knowledge was at the highest end of the research.

The following conversation contains conversations with Kaziah (participant’s guild master). He asked Kaziah to make a weapon for his deathknight, Railgun. In *World of Warcraft*, in order to build a weapon, specific materials are required, and depending on the item, the material varies. Only players with the blacksmithing profession can build weapons, and they also need to have learned the skill to build the specific item. Since the participant was a melee class player, he needed a weapon to run dungeons. In a maxed level dungeon, players were required to be equipped with a certain level of items, and Kaziah could build one of them for the participant; therefore, he asked Kaziah humbly...
because he was asking for favor. Kaziah told the participant he would build one for him after he was done with some guild managements.

Table 41. Conversation 21

<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/29 23:44:34.676</td>
<td>To Kaziah: hey kaziah can i have a favor?</td>
</tr>
<tr>
<td>5/29 23:44:44.163</td>
<td>Kaziah whispers: whats up? =]</td>
</tr>
<tr>
<td>5/29 23:45:02.236</td>
<td>To Kaziah: actually my DK hit lvl 80..</td>
</tr>
<tr>
<td>5/29 23:45:08.748</td>
<td>To Kaziah: so i need a new weapon(^{247}):)</td>
</tr>
<tr>
<td>5/29 23:45:24.718</td>
<td>To Kaziah: can u make titansteel destroyer(^{248}) for me?</td>
</tr>
<tr>
<td>5/29 23:45:40.611</td>
<td>Kaziah whispers: if you get me the mats(^{249}) sure =]</td>
</tr>
<tr>
<td>5/29 23:45:43.630</td>
<td>To Kaziah: im prepared all mat :)</td>
</tr>
</tbody>
</table>

Conversation 21 was one of the closing stages. We are going to see how much the participant enhanced his language proficiency. Let’s look at line 1:

1) Line 1: *hey Kaziah can I have a favor?*

The participant was trying to be polite, asking a favor for making a weapon for his deathknight, Railgun. In 1), the participant made an error. He had to express *can I ask a favor (of you)?* But he failed. Why did he fail? *Ask a favor (of you)* was a routine. Unfortunately, he did not have the routine in his mental lexicon. So he had to use grammar to complete his intention in language. This is how he made the sentence in 1).

Here, we would like to mention a very important point about the use of grammar. Basically, the participant depended on routines and chunks to construct sentences. To him, grammar emerged when “routine + chunk” or “chunk + chunk” could occur in the

---

\(^{247}\) Without a decent weapon, it was considered difficult to join a dungeon team.

\(^{248}\) Titansteel Destroyer = name of the weapon

\(^{249}\) Mats = materials
process of building a sentence. This is what we have found, observing his language development. Now we discover one more point about the use of grammar. The participant used grammar for compensation when he did not have a relevant routine in his mental storage. That’s why he made an expression like 1). And this reminds us of Pawley & Syder (1983) saying, “…. only a small proportion of the total set of grammatical sentences are nativelike in form...” (p. 193). In this respect, the participant’s error was not made grammatically but idiomatically. This is the first finding.

Next are lines 3, 4, and 5.

2) Line 3+4+5

*Actually my DK hit lvl 80*

*So I need a new weapon.*

*Can you make titansteel destroyer for me?*

These were all game routines. We could see how useful a routine was in this trading conversation. The participant made a discourse with the game routines, asking for a weapon. In lines 3 and 4, he explained his situation—that is, why he needed a weapon. In 5, he described what kind of weapon he needed and asked a favor. Thanks to routines, each utterance was syntactically simple and semantically clear to express his intentions. Those utterances in 2) were all the same simple sentence patterns, “S+V+C.” Also, to use a routine “helps us speak with fluency” (Nattinger & DeCarrico, 1992, p. 32). This is what the participant had learned during the game play. That is, the participant could speak clearly and fluently as far as routines were involved. This is the second finding.

Let’s observe line 7. This is the last one to see:

3) Line 7: *I’m prepared all mat.*
Line 7 is grammatically wrong. It should be spoken as below:

4) I’ve prepared all the material(s). Or I’m prepared with all the material(s).

The participant seemed to have two content words (prepare and material) in his lexicon. But he did not know how to put those two words in the right word order. In other words, he did not have a grammatical knowledge to arrange them correctly in a sentence.

How can the participant get over such errors? We can think of two possibilities. The first is that he could learn more grammar, such as the “present perfect,” “past participle adjective” (e.g., prepared), “preposition,” etc. The second is that he takes I’ve prepared all the material or I’m prepared with all the material as a routine. For this, he first needs negative feedback. For example, when he says, I’m prepared all mat, somebody must give him negative feedback. Then he can repeat the correct form until it is acquired as routine. However, we cannot tell which way is right. It depends on which method the learner prefers.

Speaking of the participant’s strategy about routine learning and use, what makes him learn a routine in World of Warcraft, and what makes him not learn a routine and result in frequent grammatical errors? This answer is a primary concern over non-language goals and content. Considering that he could use game related routines, we assume that the participant has a particular interest in World of Warcraft. Seeing he makes errors like 1) and 4), we feel that the participant did not have enough interest in social interaction or trade interaction yet. So the third finding was that his grammatical errors may be related to how much interest he takes in situations involved.
In sum, when he has routines in his mental lexicon, the participant expresses his intentions very well. He can construct a discourse with routines. On the other hand, when he has no routines, he makes errors, idiomatically or grammatically. As far as the participant is concerned, a primary interest in the content in question was the best way to get over such an error. In the following table, these findings are explicitly listed.

Table 42. Findings in conversation 21

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>Line 1 → <em>can I have a favor?</em></td>
<td>Idiomatically wrong</td>
</tr>
<tr>
<td>Line 3, 4, 5 → <em>all game related routines</em></td>
<td>Perfect discourse</td>
</tr>
<tr>
<td>Line 7 → <em>I’m prepared all mat.</em></td>
<td>Grammatically wrong</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>Line 1 → <em>can I have a favor?</em></td>
<td>Social interaction</td>
</tr>
<tr>
<td>Line 3, 4, 5 → <em>all game related routines</em></td>
<td>Game description</td>
</tr>
<tr>
<td>Line 7 → <em>I’m prepared all mat.</em></td>
<td>Trading interaction</td>
</tr>
<tr>
<td><strong>Significance</strong></td>
<td></td>
</tr>
<tr>
<td>There are three findings in this conversation. First is an idiomatic error. Second is that he makes a perfect discourse which consists of routines. Third is that a primary concern over meaning was necessary to notice and learn related routines. Specifically speaking, the participant constructs a sentence based on routines or chunks. When he had the routines or chunks in his lexicon, his expressions were clearly presented. When he did not have lexicons, then he made errors idiomatically and grammatically. His interest in <em>World of Warcraft</em> caused him to notice and learn routines.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 5. DISCUSSIONS

5.1 What is language development in *World of Warcraft*?

The data collection of the participant began after three months of *World of Warcraft* game play. Visual data was collected through video recordings, but no English interactions were observed for three months. Thus, language data was collected only when English interactions emerged. The first portion of the participant’s data shows his early stages of language development. For convenience, we will present partial or whole tables in this section.

Table 2. *Partial Findings of Conversation 1*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 4, this quest → two-word utterance</td>
<td>“This” modifies “quest.”</td>
</tr>
<tr>
<td>Line 6, red color → one-word utterance</td>
<td>“This” is a determiner. “red color” is one game terminology.</td>
</tr>
<tr>
<td>Line 14, bear → one-word utterance</td>
<td>Game-related word or terminology</td>
</tr>
</tbody>
</table>

From the beginning, the participant used one-word or two-word utterances. In line 4, he used “this quest” as a structure of “this + quest.” “This” is a determiner and “quest” is a noun, which we called a “culture noun.” In line 6, “red color” is a one-word utterance, not a two-word utterance because “red color” is a game terminology. In line 14, “bear” is
a one-word utterance because it is a game related terminology. The three utterances are all routines. Precisely speaking, they are all “deleted routines,” as we mentioned in conversation 20-1.

Why did the participant use deleted language forms? There are three possible answers. First is that he might lack language to express his intention. In order to explain this, we need to go back to conversation 1. At this time, the participant and the researcher were questing together, and the quest object was in the tower. In order to retrieve the quest object, they needed to avoid the void monster. This is what the participant wanted to say. How could he say this with his poor level of competency in the English language? It is almost impossible. So his only choice was to say “this quest.”

The second possibility is that the participant might lack game knowledge that could help him build context for the game. If he could build context, it would function as schema that works to help him understand game-related language. Consequently, he might take the game-related language as input that turns out to be routine. At that time, the participant had poor knowledge of World of Warcraft, so he could not take a routine of a full sentence as input. Instead he had to use a “deleted routine.”

The third possibility is that he might lack knowledge not only of language but of the game. The participant did not know what to express (game knowledge) and how to express it (linguistic knowledge). We assume that this third possibility describes the participant’s state.

Let’s see the next finding in conversation 3:

Table 6. Partial Findings of conversation 3
In line 7, the participant used a deleted routine again. Comparing with deleted routines in conversation 1, we can easily see that the deleted routine in conversation 3 is longer than those in conversation 1. “Checking my quest” is a collocation in the *WoW* game because “check” and “quest” often go together. If we write a deleted part of “checking my quest,” it will be “(I’m) checking my quest.”

How could the participant use a deleted routine longer than that in conversation 1? Since he had increased his game knowledge, the participant could bring schema to the print or spoken language forms. Consequently, he was ready to accept those language forms as input. The more he brought schema, the better he took input. Therefore, he could take and use a deleted routine longer than that in conversation 1.

If we observe line 5 in conversation 4, we can understand that the participant had more game knowledge than in conversations 1 and 3.

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 7, checking my quest → collocation</td>
<td>(I’m) checking my quest</td>
</tr>
</tbody>
</table>

Table 8. Partial Findings of Conversation 4

In line 5, the participant used a whole sentence, “I don’t need it,” as a routine.

This means that he could open his ears wide to input from other game players and notice input, thanks to his increased game knowledge.
The participant amazingly produced a grammatically correct sentence. However, we are not sure that he enhanced grammatical knowledge. Because he used “I don’t need it” as a routine that means it is one unit; we cannot tell that he could analyze the sentence into smaller components.

On the basis of descriptions so far, we make a tentative hypothesis of the participant’s language development as follows:

Working hypothesis of language development 1:

- high-deleted routine* → middle-deleted routine** → low- or zero-deleted routine

↑  ↑

Increase in game knowledge  increase in game knowledge

* One-word or two-word utterances
** Collocations

There is one important question about the participant in this research. That is, why did he prefer to use “routines” from the beginning in participating the World of Warcraft community? Some people might say that routines are easy to use in terms of language forms. That may be a possible answer because routines are structurally short and simple.

But we have a different view about routines. Routines reflect a social value. When we go to a restaurant and know how to order food with routines, we feel good. The participant also felt good when he began to use game related routines: he felt happy because he believed he became member of the World of Warcraft community, which is a proof that he could share its social value with other players. Considering he was not
interested in L2 learning at all, we cannot agree with a structural view about routines.

Now we can say that “routine” is a starting point of his language development.

Now let’s look at the participant’s second stage of language development. Here are line 3 and line 8 in conversation 10-1:

Table 20-1. Partial Findings of Conversation 10-1

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 3, I can’t believe I’m playing <em>WoW</em> at home.</td>
<td>Chunk+ routine, complex sentence</td>
</tr>
<tr>
<td>Line 8, I think it’s enough.</td>
<td>Chunk+ routine, complex sentence</td>
</tr>
</tbody>
</table>

In line 3 and line 8, the participant constructed a complex sentence with a structure, “chunk + routine.” “I can’t believe~” and “I think~” are chunks, and “I’m playing *WoW* at home,” and “it’s enough,” are routines. In addition to that, the participant created a new sentence structurally and semantically, adding a chunk to a routine in line 3 and line 8. Structurally, he used “chunk + routine” for the first time. Semantically, he used “a speaker’s thought + statement.” These sentences represent amazing language development because he showed his attitude toward his statement. Then we need to rewrite our tentative hypothetical language development as follows:

**Working hypothesis of language development 2:**

```
High, middle, and low deleted routines → routine → chunk + routine
↑         ↑         ↓
Increase in game knowledge           Increase in game knowledge           new sentences
```
Before we proceed to the next stage, we need to mention the role of chunks. As mentioned before, chunks are subcomponents of a routine. When he began to notice chunks in a routine, it means that the participant had to choose syntactic or semantic ways to divide a routine into chunks. We assume that he mostly used semantic ways in that he had had a small knowledge of acquired syntax before he entered *World of Warcraft*. When he happened to divide into chunks and form a sentence with chunks by his syntactic knowledge, he would often make grammatical violations.

The following is part of conversation 10-3. The participant produced sentences that were grammatically incomplete. Let’s see the scene:

Table 20-3. *Partial Findings of Conversation 10-3*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 5, what [do] we need?</td>
<td>Deletion of the auxiliary verb “do”</td>
</tr>
<tr>
<td>Line 12, [Do] we need to make home here?</td>
<td>Deletion of the auxiliary verb “do”</td>
</tr>
</tbody>
</table>

In line 5, the participant used an interrogative sentence with “what” but did not use “do.” In line 12, he made the same mistake. Why did those mistakes happen? His syntactic knowledge was not sufficient to correctly form a sentence with chunks.

Here we would like to talk about which methods the participant applied first to construct a sentence. When he happened to ask a question with a question pronoun, “what,” he moved one component “what” into the front and left the other component “we need” in the same place. Semantic ways were applied in the first place. This is how “what we need?” happened. Now it is when syntactic ways are applied. Since the auxiliary verb “do” has a grammatical function and no semantic meaning, it is natural that the
participant would use syntactic ways here. But he did not have a grammatical knowledge of the auxiliary verb “do.” That’s why he made grammatical violations in line 5 and line 12.

We can offer another working hypothesis as follows:

Working hypothesis of language development 3:

In working hypothesis of language development 3, the participant failed to construct an interrogative sentence because he lacked grammatical knowledge of the auxiliary verb “do.” In order to get over such an error, he needed negative feedback from other players. When he was interviewed about negative feedback, he admitted that there were many instances of negative feedback during World of Warcraft game play. After this, we believe that he would raise his grammar consciousness.
Table-24. *Partial findings of Conversation 12*

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong> Line 1, 3, &amp; 6:</td>
<td></td>
</tr>
<tr>
<td>Line 1: You got 2 blue items this morning.</td>
<td>Routine + chunk</td>
</tr>
<tr>
<td>Line 3: maybe, that’s why..</td>
<td>Chunk + routine</td>
</tr>
<tr>
<td>Line 6: You used all of your lucky this morning.</td>
<td>Routine + chunk</td>
</tr>
<tr>
<td>Line 20 &amp; 21:</td>
<td></td>
</tr>
<tr>
<td>20. Well, I don’t think so.</td>
<td>Chunk + routine</td>
</tr>
<tr>
<td>21. I’m enjoying skinning.</td>
<td>Routine (game)</td>
</tr>
<tr>
<td>Line 24:</td>
<td></td>
</tr>
<tr>
<td>Almost of them can be skinned.</td>
<td>Passive voice (first appearance)</td>
</tr>
</tbody>
</table>

In conversation 12, we can discover new language developments: discourse and passive voice. In lines 1 + 3 + 6 and lines 20 + 21, the participant made discourses without help of particular grammatical knowledge. Speaking of grammar, “passive voice” could be added in his grammatical knowledge. However, we included those developments in Working hypothesis 3. We regarded discourse as a combination type of “routine + chunk,” because the participant did not count on particular grammatical knowledge in order to build a discourse. And we admit that “passive voice” was a new discovery, but we cannot make sure that it functioned grammatically. Instead he used “passive voice” as routine.
It is interesting to observe conversation 16-2. In this conversation, routines and chunks were divided distinctively into: game routines and real-life routines; and game routines and real-life chunks. For convenience, we call game related routines G-routines and real life related routines R-routines. Likewise we call game related chunks G-chunks and real life related chunks R-chunks.

Table 32-2. Partial findings of Conversation 16-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 1+2, My rouge hit lvl 19.</td>
<td>G-routine</td>
</tr>
<tr>
<td>Line 5, I got blue 1H sword yesterday.</td>
<td>R-chunk + G-chunk + R-chunk</td>
</tr>
<tr>
<td>Line 10, this is not for all.</td>
<td>G-routine</td>
</tr>
<tr>
<td>Line 12, some lvl 1 are logging in.</td>
<td>G-routine</td>
</tr>
<tr>
<td>Line 13, so we can wait.</td>
<td>R-routine</td>
</tr>
</tbody>
</table>

Lines 1, 2, 10, 12, and 13 show that the participant used distinctive routines according to the context. In this sense, line 5 is different. It represents combinations of R-chunk plus G-chunk in one G-sentence. As mentioned earlier, routines are divided into chunks, and then chunks from this routine and chunks from that routine are combined together to construct a new sentence. This process is exactly what happened in line 5.

This is what we are looking for, anticipating language development from the participant. So here is another working hypothesis below:

Working hypothesis of language development 4:

---

250 G-sentence refers to a game related sentence, like G-routine or G-chunk.
In this stage, the participant showed his ability to create a sentence with an R-chunk and a G-chunk. It showed that the participant’s strategy was first based on routines and second based on chunks in order to build a new sentence. However, he did not show much knowledge of grammar in constructing a new sentence.

Let’s move to the next stage to see what he was doing to make a new sentence.

We will see conversation 17-3 and conversation 19-2, back to back.

Table-34-3 and Table-38-2. Partial findings of Conversation 17-3 and 19-2

<table>
<thead>
<tr>
<th>Types of words or expressions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Conversation 17-3</td>
<td></td>
</tr>
<tr>
<td><strong>Line 1,</strong> I can find a good place for fishing + like + find vein or herb.</td>
<td>G-routine + conjunction + G- deleted routine → a complex sentence</td>
</tr>
<tr>
<td>Line 2, I just bought + from + here.</td>
<td>R-split chunk + preposition + R-chunk</td>
</tr>
<tr>
<td>Line 4, Is there a quest + for + the flying mount?</td>
<td>Creative G-interrogative routine\textsuperscript{251} + prep. + G-chunk</td>
</tr>
<tr>
<td>Line 9, Where can I get the quest?</td>
<td>Creative R-interrogative chunk + G-routine</td>
</tr>
<tr>
<td>Line 12, This is the first one for me, + so + I didn’t know about that.</td>
<td>R-routine plus R-chunk + conj. + R-routine → a compound sentence</td>
</tr>
</tbody>
</table>

In these conversations, the participant used grammatical function words, such as “conjunction,” “preposition,” and “relative pronoun.” He made two complex sentences and a compound sentence with the help of those function words.

Also, he successfully made interrogative sentences such as an auxiliary verb “be” and a question adverb, “where.” These represent his grammatical development.

\textsuperscript{251} “There is a quest,” is a G-routine. Here the participant changed the routine into interrogative routine. In other words, he did this with the use of his grammatical knowledge. As far as grammar is concerned, it is a creativity. That’s why we would like to call “Is there a quest?” “creative G-interrogative routine.”
Speaking of his language development, there were a variety of combinations of chunks and routines in these conversations. So we can say that the participant activated putting together chunks and routines.

In sum, the participant showed his grammatical development as well as language development. The following is a description of his development. This is a final working hypothesis:

Working hypothesis of language development 5:

```
| 1st stage | A variety of deleted routines |
| 2nd stage | routines -> G-routines and R-routines |
| 3rd stage | Notice of chunks -> G-chunks and R-chunks |
| 4th stage | combinations of chunks or of ‘chunk + routine’ = a new sentence 1st stage |
| 5th stage | combinations of chunks or of ‘chunk + routine’ = a new sentence 2nd stage |

R-chunk + G-chunk + R-chunk = G-routine (no grammar included)

G-routine + conjunction + G- deleted routine -> a complex sentence
R-chunk + from + R-chunk + which + G-chunk -> a complex sentence
R-split chunk + preposition + R-chunk -> a simple sentence
Creative G-interrogative routine + prep. + G-chunk -> an interrogative sentence
Creative R-interrogative chunk + G-routine -> an interrogative sentence
R-routine plus R-chunk + conj. + R-routine -> a compound sentence (grammar included)
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* when a new sentence is built and when grammatical errors appear in this process, negative feedback is needed. -> grammar conscious raising

“There is a quest,” is a G-routine. Here the participant changed the routine into an interrogative routine. In other words, he did this with the use of his grammatical
knowledge. As far as grammar is concerned, it is a creativity. That’s why we would like to call “Is there a quest?” “creative G-interrogative routine.”

5.2 If language development was successful in World of Warcraft, then what aspects lead to successful language acquisition?

The biggest benefit of World of Warcraft is the naturalness of the environment. Its benefits are similar to Krashen’s (1982) argument that language acquisition should be conducted in a similar environment to children’s natural environment. As we know, children learn their L1 without a teacher or classroom materials. Language acquisition happens when children and adults socialize. Children do not make a conscious effort to learn their L1; they happen to learn their L1 through socialization.

World of Warcraft provides a similar environment to children’s natural learning environment. There are no teachers or materials, no one forces anyone to learn the target language (e.g. English). In addition, learners do not feel the pressure to learn the target language in World of Warcraft. In spite of this matter, it is amazing that the participant developed his L2 up to a certain level.

Another benefit of World of Warcraft is that gamers construct the society (community). This community is very similar to children’s community where they can socialize with other people. As children socialize in the community, they happen to understand that language is used as a mediation tool in order to socialize with others in the same community. In World of Warcraft, the participant used the English language as a mediation tool. This could be understood as socio-cultural theory.
Since children use their L1 as a tool, and since they are not ready to fully produce it, their language must be fragmentary. They may use two-word or three-word utterances for communication. This is the basic concept of the lexical approach. Likewise, in the *World of Warcraft* society, the participant also used game terminology (one-, two-, or three-word utterances) whenever he confronted a new task, and then later moved on to using routines. After a certain period of time, the participant began to notice chunks included as subcomponents in the routines and applied them into communication settings.

Children learn their L1 through socialization; this is the main concept of language socialization. Language socialization theory presents the idea that language is learned as a whole, not as something separate from culture. Specifically speaking, linguistic knowledge and cultural knowledge are interdependent, so language cannot be separately learned in the society. No one doubts that the participant had also gone through this LS procedure.

The third benefit of *World of Warcraft* is that it provides tasks. In *World of Warcraft* settings, multiple tasks exist, and completing these tasks leads to advancing to a different stage. When a new task is given, new game terminologies appear. And game users will talk about different stories under a new task. To novice players, their current linguistic knowledge will not be enough to communicate about the new tasks given in *World of Warcraft*. The participant might repeatedly experience these stages and consequently experience increased language awareness, which leads to noticing. As a result, the participant learned new language expressions and continued to develop his L2. For L1 children, everyday activities provide new tasks, such as “going to a museum,”
“going to daycare,” “going to the library,” etc. In other words, children confront new tasks in their daily lives.

In sum, the natural environment of World of Warcraft consists of multiple combinations of theories: distinction between acquisition and learning, task-based language teaching, socio-cultural theory, language socialization, the lexical approach, and the noticing hypothesis.

5.3 If the language learned in World of Warcraft settings were satisfying, then do we need formal learning?

Thus far, we have described the participant’s language development from working hypothesis 1 to working hypothesis 5. We have tried to show how much he had developed his language proficiency. Many findings in this research showed that he started L2 learning first on the basis of routines and second on the basis of chunks. Thanks to noticing, he realized how to combine “chunks + chunks” and “chunks + routines.” Finally, he could construct new sentences.

However, these methods were not enough because the participant had to deal with grammatical problems in his new sentences. Thanks to negative feedback from other players, and thanks to his desire to be a better language performer, he could get over grammatical problems and end up building complex and compound sentences, interrogative sentences, etc.

Despite the participant’s development, we need to evaluate his development in the natural setting of the World of Warcraft community. For this, we are going to review
the significance of the findings about the participant. There are 6 of them in this review.

First, let’s see the significance of conversation 17-4.

Table-34-4. Partial findings of Conversation 17-4

| Significance | There are two findings in this conversation; the first is that the participant could have opportunities to develop his grammar. He used various routines in the conversation and they would lead him to construct new sentences with noticed chunks from routines. The second finding is that he began to use his own learning strategies for a good language performer. In a sense, “natural learning” cannot give him full satisfaction to become a better language user because he began to depend on methods similar to formal learning. |

At this time, the participant realized that he had to improve his language proficiency for better socialization. What he realized is true because second language learning is second identity learning. So what he did was begin to use his own learning strategies. For example, he did not mind receiving negative feedback from other players. This means that he could not be satisfied with natural learning alone.

Next is Conversation 18-3:

Table-36-3. Partial findings of Conversation 18-3

| Significance | There is one finding in this conversation. It is about negative feedback. The important point about negative feedback is that, as far as grammatical errors are left untouched, language development cannot be fully expected. Here there exists a distinctive difference between natural learning and |
In this conversation, the participant expressed *what [is] this group [for]?* to Wargrider, but Wargrider failed to understand. Another player, Gromulock, helped Wargrider understand the participant. In fact, the participant had ignored some grammatical points for which he did not receive negative feedback. In this conversation, he received negative feedback for “for” from other players. He would correct his grammatical error soon. But he did not get negative feedback for “is,” because other players did not care about the deletion of “is,” which was not necessary for understanding. If he attended formal learning, his grammatical errors, including “is,” would be corrected.

If we read conversation 19-2, we can be informed that the participant needs formal learning. Here is the significance of conversation 19-2:

| Significance | There are Three findings in this conversation. First, “split chunk + grammar + chunk,” second, “creativity (interrogative) + grammar + chunk,” and third, “routine plus chunk + grammar + routine” Each finding reflects active roles of grammar in constructing a sentence. In addition to this, the participant showed the use of “split chunks” for the first time, and “interrogative creativity.” However, ironically enough, the more he used grammar successfully, the more he needed formal learning. Since a very small portion of grammar was used, and since his sentences were basically simple and short, we assume that the participant has to attend formal learning if he wants to |
produce longer sentences and discourse. In this conversation, the participant showed a great ability to creatively build sentences. However, he used a very small portion of grammar. And his sentences were basically simple and short. We assume that those grammatical sentences were only achievements in natural settings. If he wants to go beyond this level, the participant should attend formal learning.

Conversation 20-1 also showed that formal learning was necessary to the participant.

Table-40-1. Partial findings of Conversation 20-1

| Significance | There are 3 findings in this conversation. First, there is a new structure, “routine + deleted routine.” Second, simple sentences are a kind of characteristic of the *WoW* game. Third, correct tenses are used in this conversation. Even though he was successful in using simple sentences, the participant seemed to need formal learning if he would want to use rhetorically decent language. A natural setting, like the *WoW* game, cannot provide such a learning. |

In this conversation, we could find that in the *WoW* game society the use of simple sentences was popular, and consequently the participant was not motivated to go to higher language learning. We assume that the participant could only keep pace with this level.

Let’s observe Conversation 20-3:

Table-40-3. Part of the findings of Conversation 20-3
Significance

Despite the fact that he enhanced his language proficiency, we have to admit that the participant was not competent enough to respond to Zadaraia’s comment. This is the limitation of “natural learning.” The participant needs formal learning in order to go beyond these limitations.

When he happened to talk with Zadaraia, the participant succumbed because of Zadaraia’s high language proficiency. We admit that the participant was getting better and better. But we believe natural learning has this limitation on an L2 learner’s ability to engage in discourse.

Next is the final observation. Let’s see Conversation 20-4:

Table-40-4. Partial findings of Conversation 20-4

<table>
<thead>
<tr>
<th>Significance</th>
<th>The participant’s language proficiency was enough to deal with a small talk. He could interrupt the conversation appropriately (e.g., line 5) and terminate the conversation well (e.g., lines 9, 10, and 11). However, he needs formal learning if he aims at, for example, a good job.</th>
</tr>
</thead>
</table>

We agree that the participant was good at a small talk. But this is not all he needs for his future. If he wants to be good at academic talk or business talk as well as small talk, the participant will need formal learning.

In conclusion, this research had observed the L2 development of a 21-year-old adult playing World of Warcraft. In chapter 4, it was indicated through multiple findings that the participant’s English language proficiency was satisfactory at small talk even though we stated that he needed formal learning.

However, the purpose of this dissertation is not to advise L2 language teachers use World of Warcraft in the classroom. The purpose is that L2 teachers, hopefully, will
consider the implications of natural settings such as *World of Warcraft*. Therefore, describing the benefits and limitations of *World of Warcraft* settings, we hope the findings could contribute to future foreign language learning classrooms.

First, *World of Warcraft* can provide L2 learners with a natural environment. No one is forced to learn language in the game. Instead, the participant can try to learn English if he needs to. If L2 teachers want to consider their students—that is, why their students want to learn L2, what they want to learn about L2, and how they want to learn L2—they should rethink the way they have taught their students to include the benefits of learning in a natural environment.

The second point is that the study involving *World of Warcraft* demonstrated how the participant built a sentence. We already know that he mainly used routines and chunks, and later grammatical knowledge, and ended up making complicated sentences. In short, routine was a starting element in language development in *World of Warcraft*. Thus, we hope that L2 teachers carefully consider what routines are, why humans need routines, and how they teach routines to their students.

The third benefit of *World of Warcraft* is that grammar was needed in two directions. One was a positive direction. When he had many routines in his mental lexicon, the participant could divide them into chunks with the help of noticing. Then he could combine routine and chunk, or chunk and chunk. At this point, he used grammar and then constructed grammatical sentences. The other necessity of grammar was a negative direction. When he did not have enough routines in his head, the participant consciously made a sentence with single words. This resulted in odd sentences. Therefore, L2 teachers should know when to teach grammar.
The forth benefit is that we can describe what language development is in *World of Warcraft* settings. From routines through chunks to combinations of routines and chunks, we have described language development with working hypotheses 1-5. But this does not mean that language development in *World of Warcraft* is the single solution. We admit that the value of *WoW* as a natural environment is still hypothetical. What we expect of L2 teachers is that they should have a picture of how language development proceeds within the game.

It is obvious that *World of Warcraft* also has limitations. As mentioned earlier, L2 learning in *World of Warcraft* is not enough for a game player to be considered a fluent language user. For example, the participant used a very small amount of grammar and used simple and short sentences, like pigdinization. That’s why a confession about the need for formal learning was noted.

Another limitation of natural learning as in *World of Warcraft* is that L2 learners can have too much freedom over their learning. If they are satisfied with their present language proficiency, nobody can encourage them to develop further. The following anecdote is a good example. The participant in this research played the game because it was fun, and fortunately he happened to learn the English language. Thus, if he decided to stop playing the game, then his English language proficiency would stop at that level. The following interview was about the participant’s response to a foreign teacher in Seoul, after he returned to South Korea:

*After returning to Korea, I had confidence in English speaking classes, even though my major was Math not English. I remember one time when I was presenting for a class project, I did not prepare a pre-made script. Other students needed a script for a presentation but in my case, all I needed to do was remember the flow of my presentation. When the foreign teacher noticed that I*
did not have a script ready, he asked if I memorized my whole presentation. I told him that I had no problem elaborating what I wanted to say, and even if there was anything I did not know, I could ask him about it. The foreign teacher was surprised and really enjoyed having me in his class.

After I finished playing World of Warcraft, I didn’t think I needed more English education. I could speak whatever I want, and I could understand most of other peoples’ conversations, so I don’t need learn more English. Sometimes I think I might have problems with structuring sentences, but it seems that other people understand it very well. (2010)

Through the interview, one might say that the participant had confidence in his English speaking and was very satisfied with his speaking ability. However, it was questionable if his English speaking ability would be welcomed in the Korean job market. When a person does not have a purpose in L2 learning anymore, he or she may discontinue L2 learning. This can be a limitation of natural learning and will need to be considered in subsequent research.
CHAPTER 6. CONCLUSIONS

6.1 Games as a learning environment

In this research, World of Warcraft has been regarded as a natural environment. Because different views lead to different definitions of a natural environment, the term will be defined in this section.

When a certain environment bears resemblance to real life, it can be called a natural environment. In our research, there were no teachers and no teaching materials, and accidental learning took place in the World of Warcraft environment. As such, three conditions were met for a natural environment. Krashen (1981) argued that children’s learning outside the classroom could be considered as acquisition. Per Krashen, children’s environment was also a fit with the three conditions mentioned above; thus World of Warcraft can likewise be considered as a natural environment and reality.

Some people disagree that World of Warcraft is a natural environment because the game developers’ intentions are reflected in the purposeful activities of the game. They may think that a natural environment does not require intended purpose. However, concerning whatever environment, intended purpose occurs if people participate in the environment. Consider the circumstance of going to the mountain or beach. One of the main purposes of this activity is to rest. The resorts and resting areas are intentionally built by developers. Thus, intended purposeful activity is implemented in these natural environments as it is in World of Warcraft.

Natural learning is an end product of participation. It is mainly subconscious. On the other hand, classroom learning is conscious because it has a language goal. Currently,
the classroom attempts to copy real life as far as second-language learning is concerned. That is, when the classroom can successfully copy a natural environment, we can say that natural learning can occur in classrooms. In this regard, by importing ideas from the *World of Warcraft*, a successful classroom learning experience is possible.

6.2 Review of the six theories

6.2.1 Review of Krashen’s acquisition-learning hypothesis (ALH)

In the beginning of the 20th century, English language education was influenced by linguistics. Structuralism in the 1940s and 1950s and generative-transformational linguistics in the 1960s were key concepts that influenced English education. However, structuralism and generative-transformational linguistics were theories of language, not theories about language learning. Consequently, they focused only on grammar, which is the core component of language.

In the second part of the 20th century, especially in the 1970s and 1980s, interests shifted away from grammar to cognitive and affective domains. This shift affected English language education. As a result, Krashen’s (1981, 1982) second language acquisition theory was born in this era.

Krashen (1981) argued that there were two independent systems in adults’ language learning. One was subconscious language acquisition, and the other was conscious language learning. He argued that of the two, subconscious language
acquisition was more important. Krashen (1982) also argued that the two different systems were exclusive of each other.

Through Krashen and Terrell’s (1983) research, principles and practices that were applicable to the classroom were well combined. The researchers argued that contemporary methods, such as the Audiolingual method, were based on a theory of language, not on a theory of language acquisition. They continued to say that language is a tool for communication, that meaning should be considered more important, and that vocabulary learning should therefore be the main focus. The purpose of my research was to observe whether an L2 adult possibly develops his language in the natural environment, which is defined as having no necessity of a teacher, material, or demand to study. In this regard, the natural environment of my research was similar to that defined by Krashen.

In the first stage, the subject in the research began to learn game terminologies, then word combinations related to the game, and then game routines. In the third stage, he could subconsciously divide routines into chunks. In the fourth stage, he could generate new sentences by using routines and chunks. All learning was definitely subconscious. This was quite similar to Krashen’s statement that L2 adults should learn a target language subconsciously. It had been observed that, through the five stages, the subject mainly used chunks in his production and sentence-generation. This phenomenon was also similar to Krashen and Terrell’s argument that vocabulary is the center of language.

There were differences between the results of the research and Krashen’s theory. The main difference was that in the experiment the subject depended not only on subconscious language acquisition but also on conscious language learning. In the fourth
stage, the subject committed many errors in the process of combining chunks together. He was afraid of a negative image from his socializing with game players. He wanted to overcome his grammatical problems, and he wanted to appeal to conscious language learning. His reactions led us to believe that subconscious language acquisition was sufficient for small talk but was not enough to allow for better socialization. Considering this, we are forced to disagree with Krashen’s argument that subconscious language acquisition and conscious language learning are exclusive; instead, our research demonstrates that they are not exclusive but complementary. Therefore, we would like to believe that subconscious language acquisition can be a good start, and then it can be healthy to continue with the help of conscious language learning.

6.2.2 Review about task-based language teaching (TBLT)

The most important concept of TBLT is a “task.” Since a movement for CLT spread out in the 1980s, the use of tasks was considered proper in order to develop communicative language teaching (CLT). For example, Willis (1996) said that a task of TBLT could be an important key to develop principles of CLT. Consequently, TBLT has gained academic attention, and some scholars have proposed conditions for appropriate tasks. Skehan (1996, p. 20) was one of them and described tasks as follows:

Tasks… are activities which have meaning as their primary focus. Success in tasks is evaluated in terms of achievement of an outcome, and tasks generally bear some resemblance to real-life language use. So task-based instruction takes a fairly strong view of communicative language teaching.

His words can be summarized as follows:

- A primary focus of tasks is meaning.
• Non-language goals should be achieved.

• Resemblance to real life is required.

Nunan (1989) divided such tasks into real-world tasks and pedagogical tasks. Current tasks used in the classroom are mainly pedagogical.

TBLT reflects a theory of language and a theory of language learning. For the former, TBLT follows the belief that lexicon is the center of language. Skehan (1996) mentioned that native language speech processing is mainly lexical in nature. According to him, “speech processing is based on the production and reception of whole phrase units larger than the word…” (p. 22). Perkins (1999) commented that the speech processing principle is based on economy of effort. It is analogous to a human’s walking. A person who has long legs walks more easily than a person who has short legs.

For the theory of language learning, TBLT is based on Swain’s (1985) comprehensible output hypothesis (COH). She criticized Krashen’s input hypothesis (IH). According to her, IH cannot complete second-language acquisition. When a person directly participates in speaking, he or she can notice a gap between what he or she wants to say and what he or she is able to say. By noticing the gap, the person can modify his output and then learn something new about the target language.

My research and TBLT are similar in many ways. World of Warcraft has a variety of tasks. They encourage game players to focus on meaning, have a non-language goal, and bear resemblance to real-life, conditions which Skehan suggested were necessary to complete the definition of tasks. A theory of language which emphasized lexicon in TBLT is the same as our findings in World of Warcraft. It was found that the subject developed his language with chunks.
A theory of language learning based on Swain’s COH can be applicable to *World of Warcraft*. Three months after the participant played *World of Warcraft*, the subject began to participate in speaking by himself. In the first stage, his language developed from one-word utterances through two- or three-word utterances to full routines. In the third stage, he noticed his utterances had subcomponents. In the fourth and fifth stages, he generated complex sentences. That is, he modified and developed his language.

However, there were differences between tasks of the *World of Warcraft* and those of TBLT. In a word, tasks of *World of Warcraft* were real-life ones. Those of TBLT were mainly pedagogical. We wonder how successful pedagogical tasks are in the classroom. For example, Richards and Rodgers (2001) introduced two early models to which a task-based approach was applied. One was the Malaysian Communicational Syllabus (1975) and the other was the Bangalore Project (Beretta & Davies, 1985; Prabhu, 1987; Beretta, 1990). Both models failed. Richards and Rodgers continued to say that they were not sure about the effectiveness of TBLT in the classroom because TBLT did not provide successful large scale cases.

The word “pedagogical” sounds decent, but it might hamper non-language goals because it provokes tasks in the direction of language goals. Therefore, real-life tasks should be emphasized over pedagogical tasks for successful TBLT application in the classroom.
6.2.3 Review of socio-cultural theory (SCT)

In the late 20th century, there has been a new movement in which language learning is viewed in social terms (Mitchell & Myles, 2004). But this is not a new idea. Vygotsky (1978) already developed SCT, and Wertsch (1991) proposed three main themes in Vygotsky’s theory. The first was that social interaction precedes development. A child learns through interactions between people (interpsychological), and then the child integrates this learning into his or her mental structures. Therefore, consciousness and cognition are the byproducts of socialization, which is different from Jean Piaget’s understanding of child development. The second theme was that parents, teachers, older adults, peers, or the culture at large are responsible for the development of higher-order functions. The third theme was the concept of the zone of proximal development (ZPD). The ZPD is the distance between “do it alone” and “do it with the help of others.”

Since the 1980s, SCT began to be applied to second-language learning. The foremost scholar of SCT was James Lantolf (1994, 2000b). Research findings from him and his colleagues (Dunn & Lantolf, 1998; Lantolf & Appel, 1994) were well described by Mitchell and Myles (2004, p. 200) as follows:

Similarly, the second language learner has an opportunity to create yet more tools and new ways of meaning, through collaborative activity with other users of the target second language. … The unitary concept of activity theory challenges the compartmentalization of social and psychological aspects of language learning; the concept of microgenesis of new language forms in social interaction disputes distinctions between surface performance and underlying competence; and the concept of the Zone of Proximal Development links processes of instruction, organized learning and ‘naturalistic’ development or acquisition in a single site.

The above excerpt is summarized below.

- Language is a tool to convey meaning.
• Language learning collaboratively proceeds with more knowledgeable people.
• Language learning operates under integration of linguistics, psychology, and sociology.
• ZPD is a very important place to unite natural development and classroom learning.

Socio-cultural theory supports learning from World of Warcraft. First, the World of Warcraft is a natural environment, and SCT has developed from observation of a natural environment. Second, the subject in World of Warcraft learned new things, such as language and game knowledge, through social interaction, and SCT emphasizes learning through social interaction. Third, the subject learned language and game knowledge from more knowledgeable people through social interaction, and SCT is based on such learning. Fourth, language was a tool for the subject, and SCT emphasizes the use of language as a tool, too.

However, my research observations in World of Warcraft disagreed with SCT about ZPD. The subject learned new things from more knowledgeable people, but the more knowledgeable people did not teach or influence him. When he was ready to move beyond his current state of whatever knowledge, he automatically used “noticing” to make that transition. But when we consider classroom teaching, we wonder whether teachers wait for their students to be ready to move beyond their current state or not. The scholars above believe that SCT is applicable to the classroom, but we are not sure. It should not be forgotten that SCT is a result of observation of natural development or learning. Nor should it be forgotten that classroom teaching and learning are based on conscious work, and a classroom is not a natural environment. That’s why further research is needed, especially about ZPD.
6.2.4 Review about language socialization (LS)

A basic idea about LS is that language and culture are not separable. Ochs (1988, p. 14) describes the relationship between language and culture as follows:

Given that meanings and functions are to a large extent socioculturally organized, linguistic knowledge is embedded in sociocultural knowledge. On the other hand, understanding of the social organization of everyday life, cultural ideologies, moral values, beliefs, and structures of knowledge and interpretation are to a large extent acquired through the medium of language.

Putting Ochs’s words differently, when entering a new community or culture, a person would automatically learn new language that has the equivalent meaning in their own language and social values. For example, one of the morning greetings in Korean culture is “Did you have breakfast?” Although the question is literally asking if one had breakfast or not, culturally it replaces “Good morning.” As seen in this example, culture is implied in language.

Ochs and Schieffelin (1984, 1995) researched three different interactions from infants of different cultures: North America, Samoa, and Kaluli. In the white middle classes of North America, infants are viewed as conversational partners. Thus when a baby utters an unintelligible sound, its caretaker tries to understand what the baby says and makes an effort to determine what the baby means. Therefore, the caretaker often uses checks and recasts. On the other hand, in Samoa and Kaluli, infants are not considered as conversation partners. As a result, when they do not speak clearly or understandably, their utterances are seldom clarified or recasts. Although Ochs and Schieffelin’s research show the relations between culture and language, they do not note anything about infants’ language development.
Research has been conducted about the relationships between LS and second-language learning. Pallotti (2001) observed how Fatma, a five-year-old Moroccan girl, interacted with her classmates in an Italian nursery school over a period of eight months. What he found was that she repeated others’ expressions or parts of their expressions while she was interacting with them in her early conversation, which implies cultural routines. Kanagy (1999) learned that L2 children understood when and how to use routines when they were given routines in the classroom. These young children learned culturally focused language forms without difficulty. Ohta (1999) experimented on adult learners about second language socialization (SLS). In Japan, interest and support among interlocutors are considered important in socialization. Ohta found that her subjects could use culturally appropriate expressions to make people harmonious. Through these reviews, we can obviously understand that language and culture are interdependent.

In my research, it is possible to observe that the subject fit well with language socialization or second-language socialization. In the first stage, he produced game terminologies in the early stage of his involvement in the *World of Warcraft* community. This means that he focused game-culture-bounded words, and then in the next stage he uttered word combinations relevant to the game and game routines. However, the subject was different in the third stage. He noticed chunks that were subcomponents of game routines and could combine chunks. Then, in the fourth and fifth stages, he could generate new sentences.

LS and SLS are necessary to connect people with language development. No matter where an infant is born, we understand that infants start to talk with culture-bound words. We need to do further research about why they use such words first. If such words
would be a starting point of language development, such findings would make a significant difference in language-acquisition research.

6.2.5 Review of the lexical approach (LA)

Lexical approach is a concept coined by Lewis (1993). In LA, language is viewed as being made of lexical phrases known as chunks. When students are taught by lexical approach principles, they are able to perceive grammar (patterns of language) as well as chunks in a target language. Therefore, the purpose of LA instruction is to teach chunks. Natural Approach (Krashen & Terrell, 1983) and Task-Based Language Teaching (e.g., Willis, 1996) are based on lexical phrases as chunks, too. We observed that the subject developed his language with chunks. As mentioned several times, in the first stage the participant produced game terminologies through word combinations relevant to *World of Warcraft* game routines.

However, the lexical approach, including natural approach and TBLT, does not have a coherent language-learning theory. Though these approaches emphasize vocabulary as the center of language, they fail to explain why students start with chunks. According to my research findings, chunks should be the center of language learning. The subject was interested in joining the *World of Warcraft* community. As a consequence, he engaged with game terminologies in his early game play. When he began to increase his game knowledge, he produced longer word combinations. In other words, his game knowledge enabled him to develop his language proficiency.
Compared with the description above, LA needs further research; it failed to explain when a learner needs grammar. In my research, the subject felt grammar consciousness raising in the fourth stage and then produced more correct grammatical sentences in the fifth stage. Specifically speaking, the subject received negative feedback from other game players in the fourth stage, which encouraged him to pursue grammar knowledge. When the participant decided to pursue grammar knowledge, his intentions were not as a learner; rather, his purpose was to survive in the game community. More specifically, he needed to clarify his grammar in order to express his thoughts and feelings and to project his virtual identity more clearly to other players.

As can be seen through these observations, LA did not explain findings that this research discovered. Lewis (2000, p. 184) made a comment about lack of coherence of his theory as follows:

- Encountering new learning items on several occasions is a necessary but sufficient condition for learning to occur.
- Noticing lexical chunks or collocations is a necessary but not sufficient condition for “input” to become “intake.”
- Noticing similarities, differences, restrictions, and examples contributes to turning input into intake, although formal description of rules probably does not help.
- Acquisition is based not on the application of formal rules but on an accumulation of examples from which learners make provisional generalizations. Language production is the product of previously met examples, not formal rules.
- No linear syllabus can adequately reflect the nonlinear nature of acquisition. (cited in Richards & Rodgers, 2004, p. 134)
6.2.6 Review of Noticing

In second language acquisition (SLA), there has been a controversy among scholars about the relationship between awareness and acquisition. Brown (2007a, p. 292) implied that noticing stemmed from awareness; thus noticing and awareness are to be considered as the same concept.

Swain (1985, 1995) proposed the output hypothesis (OH) and explained there were three functions in the output. One of them was the noticing function. According to Swain, a learner could notice his or her error while he or she was talking. The learner could realize how he or she was falling behind about knowledge of a target language. One of the influential researchers about noticing is Schmidt (1990, 1994, 2001), who suggested the noticing hypothesis (NH) and argued that a learner could not learn a pattern of language (grammar) unless it was noticed. Schmidt (1994) continued that noticing changes from input to intake for learning, but he later weakened his statement, saying that more noticing would lead to more learning. Another hot issue about noticing is whether noticing is conscious or subconscious.252 Peters (1998) agreed with Schmidt that noticing is conscious, but Lightbown and Spada (2006) believed that noticing is subconscious. The subject in my experiment kept noticing all the time from the first stage to the fifth stage. In the first stage, he noticed words (game terminologies), then game related word combinations, and then game routines. We are not sure whether his noticing was conscious or subconscious, but we found while interviewing him that he could not remember picking up game words, game word combinations, and game routines. We can

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252 If “focal and peripheral” terminology is preferred instead of “conscious and subconscious,” read Slavin (2003).
assume, therefore, that his noticing was subconscious. In the third stage, the subject surprisingly noticed his language. This was definitely subconscious. He did not know why it happened. When we showed him his conversation data, he said “Miracle!” His noticing led to not only more learning but also increasing his ability to express himself. He subconsciously collected many chunks from his routines and used them in his production. These findings are different from those of current noticing researches. Therefore, we can say that noticing works for language development.

In the fourth stage, the subject’s grammar consciousness was raising. He began to be aware of developing grammatical abilities. His noticing in this stage was conscious because he consciously focused on language. Especially, he focused on language forms when other players gave him negative feedback. This finding was accorded with the negative feedback of Nicholas et al. (2001). They observed that utterances of negative feedback were more focused than other utterances.

In summary, the subject used conscious noticing or subconscious noticing, depending on his degree of interest. When he focused on the game, he subconsciously noticed language items. When he paid attention to language forms, he consciously noticed them. The subject moved from subconscious noticing to conscious noticing. We would like to believe that the such a noticing order happens in a natural environment like World of Warcraft.

There is one more question to raise about noticing: what makes a learner notice language forms? Further research needs to be done in this area. If it is correct that noticing is an important factor for language development or acquisition, then we as educators should know about it. The subject in World of Warcraft was interested in
participating in the game. As a result, he was noticing all the time during game play. According my findings, it is possible to say the following to future second language teachers: Help students develop their non-language goals. Do not teach or focus on language learning. When the students want to know something about language, that is when a teacher can focus on language teaching.

6.3 Using games in L2 classrooms

Leontiev (1981a), Nikolopolou (1993), etc. mentioned that humans have intrinsic motivation to play. Verenikina et al. (2003) argued that play as previously understood has recently been replaced by other activities, such as computer games. Therefore, play and games can be viewed as similar concepts.

Sociocultural theorists (Vygotsky, 1977; Bodrova & Leong, 1996) argued that play (or games in this paper) is an important activity for children’s development. Therefore, playing and enjoying games is part of human nature, no matter who, what, or how old people are. A game is the medium for people’s entertainment. There has been a tendency for classroom teachers to imitate features of a game. However, the effectiveness of using games in language classrooms was disappointing. Further research in using games in language classrooms will be required in order to determine the effectiveness of games for ESL teachers.

Let’s start with definitions of learning. Brown (2007a, p. 8) made a list of definitions of learning as follows:

1. Learning is acquisition or “getting.”
2. Learning is retention of information or skill.

3. Retention implies storage systems, memory, cognitive organization.

4. Learning involves active, conscious focus on and acting upon events outside or inside the organism.

5. Learning is relatively permanent but subject to forgetting.


7. Learning is a change in behavior.

Definitions from 1 to 6 will result in 7. We change and grow through learning. It sounds beautiful, but it accompanies pain in that we have to give up part of the knowledge that we have kept for a long time in order to gain new knowledge. So the longer pain lasts, the shorter learning lasts. A game reduces such pain. That’s why teachers tend to pay attention to using games in classroom.

Then what aspects of videogames can be applied to language classrooms and make the use of games for language learning successful? As far as second language learning is concerned, several things will be mentioned. First, there should be a variety of tasks in the game. Whenever they complete one task, learners have to have an internal desire and interest to engage in the next task. For example, *World of Warcraft* players can develop their own characters to be stronger after every task. Players are actively involved in creating their own characters and are in control of the characters. They enjoy each task. Second, the game is designed to invite the participation of a lot of game players. “You do it, then I do it,” is an essential feature of humans. Humans are social animals, and they learn whatever they need in the community. Third, there should be communications among players. *World of Warcraft* has various communications that require a lot of
language functions, such as asking, greeting, challenging, inviting, and reciting a monologue. We know that those functions lead to language development. Fourth, a teacher should be part of the game community, not a master. As mentioned above, *World of Warcraft* is based on natural environments. We expect that there exist equal relations among game players. If teachers have too much desire to teach, it will lead to influencing their students, and then equal relations cannot be expected. As is known, the learner concerned in a natural environment should choose the learning environment. In the fourth stage in the experiment, the subject realized he needed formal learning in English. In this period, students will be more likely to receive any input from the teacher. Until this period, the teacher should learn to wait for the student to be ready.

*World of Warcraft* was used as material in my research. The results were satisfied with conditions mentioned above. If different games can fully meet such conditions, it can be believed that the game can be positively suggested in the second language classroom.
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