Using the MMORPG 'RuneScape' to Engage Korean EFL (English as a Foreign Language) Young Learners in Learning Vocabulary and Reading Skills

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DECLARATION OF AUTHORSHIP

The work conducted during the development of this PhD thesis has led to a number of presentations and a guest talk. Papers and extended abstracts from the presentations and a guest talk have been generated and a paper has been published in the BAAL conference' proceedings. A list of the papers arising from this study is presented below.

Kim, K. (2012) 'MMORPG RuneScape and Korean Children's Vocabulary and Reading Skills'. Paper as Guest Talk is presented at ***CRELL Seminar*** in University of Roehampton, London, UK, 31st, October 2012.

Kim, K. (2012) 'Online role-playing game and Korean children's English vocabulary and reading skills'. Paper is presented in ***AsiaCALL 2012 (11th International Conference of Computer Assisted Language Learning)***, in Ho Chi Minh City, Vietnam, 16th-18th, November 2012.

Kim, K. (2013) 'Online role-playing game and Korean children's English vocabulary and reading skills'. Paper is presented in ***IATEFL 2013 (47th Annual International IATEFL Conference and Exhibition)***, in the Arena and Convention Centre Liverpool, Liverpool, UK, 8th-12th, April 2013.

Kim, K. (2013) 'Can online role-playing games help improve Korean children's vocabulary and reading skills?'. In Archibald, A. N. (Ed.), ***Proceedings of the BAAL Annual Conference 2012*** (the 45th Annual Meeting of the British Association for Applied Linguistics), p. 117-119), in University of Southampton, UK, 6th-8th, September 2012. London: Scitsiugnil Press.

Parts of the above works have been used in my thesis as follows:

Examples of text data and categories of vocabulary and reading strategies from the presentations and guest talk were used in Chapter 8 and Chapter 9.

Examples of text data and categories of vocabulary and reading strategies from the paper published in BAAL 2012 Proceedings were used in Chapter 8 and Chapter 9.

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ABSTRACT

This study aims to explore the affordances offered by online role-playing games like RuneScape in learning English vocabulary and developing reading skills, and to examine whether there is any relationship between playing RuneScape and Korean children's vocabulary and reading skills. I sampled five elementary students (1 female and 4 males, aged 10-11), who played RuneScape for 30 minutes per session for 9 to 14 sessions in a private English institute in South Korea. I collected the text data through retrieving the text from the recordings of participants' game-plays using a screen recorder. The observation data was attained by observing them playing games through participant observation, observation framework and field notes. I analysed the English text learners would encounter when playing Runescape, and using observation, attempted to describe the vocabulary and reading strategies they tend to use whilst playing. The findings showed that participants encountered the seven categories of vocabulary whilst playing: generally-used vocabulary, fixed phrases, RuneScape vernacular, lexis specific to computer games, chat speak (acronyms and abbreviations), emoticons and reduplication. From the observation data, I found that participants used the following vocabulary strategies: looking up in a dictionary, verbalising vocabulary and guessing meanings verbally. Reading strategies were: clicking, verbalising, reading texts aloud, translating and typing. The findings suggest that there is relationship between playing RuneScape and vocabulary and reading skills. However, Korean children do not get sufficient practice in their use of vocabulary and reading skills for pragmatic purposes in their English classrooms, due to time limitations and large classes. Children tend to lack instrumental motivation for learning English, so the fun and interest of playing games might help engage them in learning English. I would argue therefore that online role-playing games have the potential for Korean children as a useful supplementary tool for developing vocabulary and reading skills.

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Chapter 1 INTRODUCTION

1.1 Motivation for the Study

This study relates to several research fields: English learning, young learners and ICT (Information and Communications Technology). Specifically, it is about the use of computer games for Korean young learners to learn English in an EFL (English as a foreign language) situation. Here I explain why I selected children, learning and computer as my focus and what stimulated my motivation to begin this study.

I have been interested in the widespread perception that better learning can occur when someone is more interested since I began to teach English to Korean students from elementary school (aged 7 - 10) in a private English institute. I also taught middle and high school students; however, the interest of their parents and school teachers was in the high scores in the English exams at schools, not making them interested in English in itself. I therefore realised that the elementary school students, who start studying English as a subject at school, were the best participants to explore whether I could make it possible to make them motivated and interested in learning English. During my teaching, for several years, I made every effort to engage them in English learning with the awareness that learning could be interesting and fun; I used games for leading them with incentives or motivation to keep learning unconsciously. The games I used were not computer games, but games using paper-made cards (e.g. pictures or English spellings) or plastic game tools (e.g. plastic sticks with rock, scissors and paper shapes). I perceived that using games during lessons could be a stimulating way for my students to learn English because they were young and tended to be fond of playing games. I therefore made use of various gaming tools and materials, taking into consideration their grades, and devising lesson plans to offer more opportunities. It aimed to make my students feel that learning English was interesting. Although I was not able to make all of my students interested in learning English, I can say that many of them seemed more motivated and

perceived that English learning was interesting. I found this through feedback from them and their parents and their examination results from schools. I then started thinking about whether there were ways to encourage all of my students and other Korean young learners not involved in our private institutes. This was because I saw that some students lost motivation or interest in learning English and they gave up studying English as a subject in middle schools or high schools, which affected their university entrance examinations and future career.

Before I came to the UK for Master's Degree, I started to consider computer games instead to save time and be more efficient; computer games for children were already provided by websites, so I would save time not making game materials and I could use them repeatedly whenever I wanted. I realised the limitation of this idea in the context of the classroom because it might be possible only in computer labs equipped with high speed Internet. However, thanks to the rapid progress of Internet and technology in Korea, computer labs in public schools have been set up for using the Internet, making it possible to play computer games. Nowadays, tablets such iPad are being used and are becoming popular in the classroom in Korea, rather than computer labs. The big problem, however, was what kind of computer games would be the most appropriate for Korean young learners and the Korean context. After research, I decided to use MMORPG (Massively Multiplayer Online Role Playing Game), a genre of computer games, which I will explain in the following section. Because of its strengths and learning environments, it seemed to be a proper tool for Korean young learners' English learning. I will discuss this in detail in Chapter 5.

1.2 Definition of MMORPG

This study will use "RuneScape"[1] as a research tool to find out whether it has affordances as an English learning tool for Korean young learners. RuneScape is a MMORPG (Massively Multiplayer Online Role-playing Game). MMORPG is a genre

[1] RuneScape official website, http://www.runescape.com/

of role playing game 'in a virtual environment in which players attempt to increase their standing within the game, carry out tasks and missions, or simply enjoy interacting with other players within the rules of the game' (Hsu and Chen 2009: 327). The major distinction between MMORPGs and other role playing games is that MMORPGs lead a large number of players to play and interact together throughout the world in real time online, as opposed to playing against invented characters or alone. I will discuss the language learning environments in MMORPGs including RuneScape in detail in Chapter 5.

1.3 Significance of the Study

1.3.1 Methodological Innovation

The two methodological innovations of my research provide the reasons why this study is significant: (1) using a screen recorder for recording and collecting data and (2) using the text data recorded by the screen recorder for analysing data. The first innovation is that I used a screen recorder program to record the whole process of computer game-playing for data collection and this method has been rare in the TESOL (Teaching English to Speakers of Other Languages) area. I was unable to find any previous studies on English vocabulary learning using a screen recorder. However, it was not hard to handle the recording procedure and obtain and store the recording files, and therefore screen recorder programs can be applied to diverse usages. For example, English teachers, or parents, or students themselves, are able to use a screen recorder to attain recording files for reviewing the English learning via online websites or computer games. I argue, therefore, that my study is significant in terms of the use of the innovative and useful data collection method of screen recording program. The other innovation is that I retrieved and examined text data from the screen records for data analysis. I planned to obtain some text data in RuneScape to find out whether and how RuneScape game-playing and Korean children's English vocabulary learning would be related. After obtaining text data using the screen recorder, I used the recording files in the data analysis stage. I filled in the text data forms with the files. I presented the language, which learners

encountered when playing RuneScape in Chapter 7. The use of text data has been done in the fields of education, but the screen recorded text data have rarely been used to find out the relationship between computer games and EFL children's English vocabulary learning. Using the text data from the recording files for analysing data in the context of EFL and computer games is rare. I argue therefore that my research methodological approach is innovative and significant for the English vocabulary learning of young learners using computer games in EFL contexts.

1.3.2 Theoretical Contribution

The other significant feature of this study is its theoretical contribution with reference to reviewing the existing literature in the field of TESOL and ICT. Based on the literature and my research findings, I discuss the three aspects of theoretical significance in my study: (1) RuneScape for English learning; (2) MMORPGs for English learning of EFL children; and (3) MMORPGs for vocabulary and reading skills. Firstly, little is known about using RuneScape for English learning. Despite the possible affordances of MMOPRG for language learning (see Chapter 2), a few researchers have attempted to explore MMORPG as a language educational tool. As pioneers in the field of MMORPGs and language learning, Rankin et al. (2006a; 2006b) firstly introduced MMORPG Ever Quest II for language learning. With Bryant's (2006) article, some researches have been carried out employing "World of Warcraft"[2] (WoW) for education with older students (Thorn 2008). These researches are not appropriate at my study about EFL children's English learning. I will discuss how RuneScape is different from WoW in Chapter 5. No study about using RuneScape for language learning has been carried out, although there are some articles on RuneScape itself (Bilir 2009; Crowe and Bradford 2006; Loeppky 2006; Muñoz Rosario and Widmeyer 2007; Osborne 2008; Van Loon 2008; Willems 2008). I suggest therefore that introducing and employing RuneScape for English learning tool can be significant, contributing to the field of TESOL.

[2] World of Warcraft official website, www.warcraft.com

Secondly, knowledge and research based on EFL young learners' English learning using MMORPGs has advanced little to date in the field of TESOL. The above studies using MMORPG for language learning used university students rather than young learners. Waters (2007) proposed that MMORPGs are less efficient at building up the grammatical aspects of language and not suitable for beginners, because they require at least intermediate-level knowledge of the English language. However, it seems that although Korean children are beginners and are unable to acquire the precise grammar, MMORPGs like RuneScape can influence other aspects of their English learning, such as vocabulary and reading skills. I suggest that MMORPGs, including RuneScape, can be used as an English learning tool for EFL young learners.

Thirdly, research about English vocabulary and reading skills in MMORPG including RuneScape has been rarely done. I presumed that RuneScape was unable to provide the listening and speaking modes and writing English might be difficult for Korean children as beginners. Because of this, I focused particularly on vocabulary and reading skills, and conducted my research with the aims of examining whether Korean children encountered new vocabulary and whether they applied any vocabulary and reading strategies to understand the text meanings when playing RuneScape. The results of my research showed that Korean children encountered new vocabulary and they used a number of vocabulary and reading strategies to facilitate their understandings of the texts in RuneScape. It seems likely that there is the relationship between RuneScape and Korean children's vocabulary and reading skills and further RuneScape would enable them to engage in vocabulary and reading learning.

1.4 Research Aims and Questions

The purpose of this study is to investigate whether playing MMORPG RuneScape has an impact on Korean young learners' English learning, specifically vocabulary and reading skills in the Korean context. It aims to examine whether playing MMORPG RuneScape and participants' English vocabulary and reading skills are

related; if so, what kinds of vocabulary and reading strategies participants employed while playing RuneScape. To achieve the purposes of my study, I set up my research questions as follows:

RQ1. Do learners learn new vocabulary when playing RuneScape?

RQ2. What kind of reading do learners do with RuneScape?

1.5 Organisation of the Study

This thesis consists of eleven chapters. Chapter 1 has introduced my motivation for beginning to study this topic, the context and the rationale behind this study, and has outlined its findings and significance.

Chapter 2 describes the context of my research in more detail. The first part reviews the system of English language teaching in South Korea and discusses the cultural and social barriers to English learning in this context. In the next part, I discuss the current relationship between children and technology. I then discuss Korean children's characteristics in language learning.

The literature review is split into the three chapters, which provide the theoretical frameworks: Chapters 3, 4 and 5. Chapter 3 reviews vocabulary learning and vocabulary learning strategies in EFL contexts including South Korea. Chapter 4 discusses reading in English as a foreign language, considering challenges and solutions for Korean young learners' reading, multimodality and new literacy, gaming literacy and online reading, and online reading strategies for Korean children. Chapter 5 discusses the potential of MMORPG RuneScape for Korean children's English learning, focusing on vocabulary and reading skills.

Chapter 6 describes the research methodology, presenting research aims and questions, research design, methodological frameworks, pilot studies, the main

study with data collection and analysis and ethical considerations.

The following chapter describes the learning context in RuneScape. The first part gives a general overview of RuneScape gameplay, displaying specific examples of one of the participants. The second part presents the language of RuneScape which learners encountered when playing RuneScape, retrieving from the text data.

Chapter 8 and 9 present the findings from observation data about vocabulary learning strategies and reading strategies, respectively and interview data, describing what I have achieved through the research process.

Chapter 10 discusses the findings about vocabulary learning strategies and reading strategies, based on the research questions. Interview findings are also discussed.

In Chapter 11, I conclude the study by discussing validity and generalisability of this study, suggesting implications, limitations and directions for future research and contribution of the study.

Chapter 2 ENGLISH LANGUAGE TEACHING IN SOUTH KOREA & CHILDREN, TECHNOLOGY AND LANGUAGE LEARNING

2.1 Introduction

The research presented in this thesis took place in South Korea. Alesina et al. (2003) said that South Korea is one of 'the least ethnically fractionalised countries' and 'the least diverse countries' (p. 8). Also, the Further Education Funding Council in England said that South Korea is 'one of the most culturally, ethnically and linguistically homogeneous countries in the world' (Further Education Funding Council 1998: 2). This lack of diversity in Korean cultural and social features influenced the Korean educational system and English Language Teaching (ELT); it produced some challenges and obstacles to ELT in the Korean context. Another aspect of context focuses on children, technology and language learning, considering 10-11 year old Korean children's characteristics. Korean children's lives are surrounded with technology, in which learners can construct their own learning for themselves, through interactions with the teacher or peers or computer. This is the reason why I selected playing computer games as a tool of learning English for Korean children. In this chapter, I first discuss the contextual considerations of ELT in South Korea: the status of ELT and challenges in ELT, cultural and social barriers to ELT, and the model of reading in Korea. I then consider the contexts of today's children and technology. I finally examine 10-11 year old Korean children's English learning, discussing learning English and age, transitional period in Korean education system and scaffolding, ZPD, mediation and MMORPGs.

2.2 English Language Teaching (ELT) in South Korea

2.2.1 The Status of ELT and Challenges in ELT

ELT in the State Sector

With the development of Information & Communication Technology (ICT) and the spread of the global village, English is more significant than in any other era. To

keep pace with the currency of English as a global language, English was introduced as a required subject in the Korean core curriculum for elementary education (Park and Oxford 1998). English Language Teaching (ELT) has started from the third grade (aged 8) in elementary school since 1997 in the 7th Curriculum phase, whereas the previous system started from the first grade in middle school (aged 12). Schooling consists of the three groups in Korea, namely elementary school, years 1-6 (aged from 6 to 11), middle school, years 7-9 (aged from 12 to 14) and high school, years 10-12 (aged from 15 to 18). The Ministry of Education (MOE) of Korea reformed the English curriculum in 2008, currently in the eighth revision of the national curriculum phase (known as the 8th Curriculum). Linking with the 7th Curriculum, the Ministry of Education has goals for the subject of English in elementary schools: to enhance communicative competence for increasing the individual and national competitiveness and to provide the benefits of education to everyone, regardless of economic and geographical backgrounds (MOE 2008).

To achieve the first goal, the Ministry of Education revised the English lesson hours per week in 40 minute periods, for students to become more exposed to English, increasing from one to two hours (Grade 3-4) and from two to three hours (Grade 5-6) (MOE 2008). Since the 7th Curriculum, with the perspective that grammatical English teaching methods are unable to help much in enhancing learners' communicative competence (Development Committee 1992: 66, cited in Li 2001), the approach of teaching English has shifted from a grammar-oriented approach to a communicative approach. Communicative Language Teaching (CLT) has been the official English teaching approach (Kim 2002) since then. CLT aims to help 'develop the ability of learners to use language in real communication' (Ellis 2003: 27) and to 'handle communicative functions in real life' (Kim 2002: 131). This 'communicative language ability' means the 'ability to deploy the appropriate language knowledge and strategic competence for a particular context' (Chapelle 2003: 18). In reality, however, although the Korean government set up CLT as the official approach for the subject of English in schools, Korea has a range of difficulties in keeping up CLT. The first issue is about teachers: the deficiency of teachers' English proficiency and the shortage of teachers' applicable abilities to do various tasks or activities with

the authentic resources (Li 2001), and their not having 'enough resources, assistance, or time to develop materials and assessments by themselves' (Butler 2011: 41). The second constraint is about the classroom-level: the 'large class sizes and limited instructional hours' in some EFL countries (Butler 2011: 42). For example, although some teachers are able to apply diverse activities to their English class and have advanced English proficiency levels, it is difficult for the teacher to manage the allocated curriculum per class with allotting time to student-centred task activities or involvements, because of the large class sizes (normally over 30 students, but 50-60 previously) and limited lesson periods. The third limitation is that, like other EFL countries, students' use of English is limited to classroom settings; there is 'little access to authentic language input and limited opportunities to interact with native speakers of English' (Kim 2002: 132). To add to the obstacles, in 2001, the Ministry of Education introduced the policy of "teach English through English" (the official acronym is TETE; henceforth TETE) (Kim 2002). The policy was to ask elementary school EFL teachers to use only English in the classroom context (Kang 2008). TETE "is defined as speaking and using English as often as you possibly can, for example, when organising teaching activities or chatting to students socially (Willis 1981). It means establishing English as the main language of communication between students and instructors" (Kim 2002: 132). The Korean Ministry of Education has been promoting TETE as the instructional model from primary education through higher education (McKay 2009). However, the implementation of TETE has been criticised because of some challenges: the concerns of the EFL teachers about individual learner difference, e.g. low levels of learner interest and motivation (Kim 2002); large size and mixed ability classes (Kang 2008); teachers' anxiety about TETE (Kim 2008); and the struggling of limited English proficiency of teachers to use English confidently in their classes (McKay 2009). In considering the challenges, Kang (2008) suggested from the findings of his study that it would be more recommendable for elementary school EFL teachers to use both Korean and English in the classroom for 'maintaining classroom discipline and enhancing student comprehension, both of which could contribute to continued student interest' (p. 224). Kim's (2008) findings suggest the intensive teacher training programs to reduce teachers' anxiety and develop their

communicative skills. For the second goal, to give equal opportunities and reduce private education expenditure, the Ministry of Education established diverse online English learning programs, such as "EBSe", an English education channel[3] and "Edunet"[4], a cyber home learning system.

ELT in the Private Sector

The Ministry of Education has recommended online English programs for students and parents to enhance communicative competence and reduce the expense of private tutoring and private educational fees. Nonetheless, private education has still been popular because of a high value on education in Korean society, locally called the education fever and the Korean people's lack of faith in the public education system. Private education includes 'extracurricular lessons, such as cram schools (*hagwon*), private tutoring (*kwaoe*), English camps (*yeongeocamp*), and even language training abroad (*haewoeyonsu*)' (Park 2009: 51). I will discuss the issues around this education fever and other barriers to learning English in Korean society and education system in the following section. Statistics Korea (2015) reported that 81.1 percent of the elementary school students participated in private education in South Korea in 2014, including so-called cram schools (*Hagwon*); and the participation rate for English subject (45.9 percent) recorded highest among general subjects of Korean (26.3 percent), mathematics (45.8 percent), and social science and science (12.6 percent). To 'restore confidence in the country's education system and reduce the financial and emotional burden on families', in 2011, the President of Korea, Myung-bak Lee made an effort to 'wrest control back from a frenzied private tutoring industry that enrolls three-quarters of Korean students, the highest rate in the world'[5] (Chandler 2011). The President seemed to trust the public education system, but still parents send their children to private English schools or private tutors for conversation classes or for test-taking skills in the English subject. It was caused by long-term disappointment in the

[3] EBSe, http://ebse.co.kr
[4] Edunet, http://www.edunet4u.net
[5] Retrieved on 10.August.2015 from http://articles.washingtonpost.com/2011-04-03/world/35262862_1_education-systems-cram-schools-shadow-education

quality of public education and ongoing lack of faith in it. In private education, usually Korean EFL teachers teach general English classes for exam-taking skills and native speaker teachers teach English conversation classes. The eligibility of the applicants for being native English teachers in public schools is indicated by NIIED (National Institute for International Education), a government-affiliated organisation. Applicants must be a 'citizen of one of the seven designated English-speaking countries (Australia, Canada, Ireland, New Zealand, South Africa, U.K., U.S.A.); hold a minimum of a bachelor's degree from an accredited university; have a good command of the English language; have the ability and willingness to adapt to Korean culture and lifestyle; and be mentally and physically healthy'[6] (NIIED). However, some native speakers in private education do not have qualifications such as bachelor's degrees. I therefore prefer the term "competent speakers" to the term native speakers, because being 'a native speaker does not automatically qualify one as a competent speaker' (Anchimbe 2006: 8). I suggest that qualified competent speakers should be hired in private education.

2.2.2 Cultural and Social Barriers to ELT

The Korean historical, cultural and social backgrounds contributed to the construction of the Korean education system. Concurrently, they seemed to cause the barriers to English learning. I discuss them in terms of Confucianism, education fever and examination hell.

Confucianism in Korean Society and Education

In the Korean education system, the teacher has been at the centre of the class, in a dominant role of transmitter of knowledge and therefore students' learning depends on the teacher's instruction and control. Barr (2004) argues that students could rely on the teacher's opinions or views and then become incapable of building their opinions and analysing critically, leading students to play passive roles during the class. This perspective is associated with Confucianism from the traditional Korean education system.

[6] Retrieved on 10.August.2015 from
http://www.niied.go.kr/eng/contents.do?contentsNo=98&menuNo=369#none

Confucianism is a philosophy and ethical moral system set up by Confucius (551-479 BC) in China. It has given a strong influence on the values of Koreans' lives and modern Korean society (Crowder Han 1995; Hyun 2001; Park and Cho 1995). One of the fundamental principles of Confucianism is hierarchy, in which 'the composition of society is hierarchical, based on the vertical structure of superiors and subordinates' (Hyun 2001: 205). This hierarchy affected order within the family between parents and children, stressing the identification of one's place and role within the family and society, called collectivism; whereas the West respects the individual's equality and rationality (Guilloteaux 2007). Confucianism was extended to the educational system when the Choson Dynasty, which ruled Korea for 500 years (1392-1910), adopted an official philosophy and political system. "Neo-Confucianism" refers to the later version of Confucianism in the Choson Dynasty, stressing respect for the teaching of ancestors, parents, and teachers, which is considered to be an important virtue for descendants, children and pupils (Im 2008). It also stressed learning and the 'high valuation of education' (Sorensen 1994: 11), in which students are highly motivated to succeed in school and society. In the combination of hierarchy and education, the relationship between teachers and students is not equal in that the students should be obedient to teachers, stressing that 'the teacher is a sensei or guru figure who imparts knowledge and wisdom, and the role of the student is to listen carefully, learn deeply, and apply that wisdom' (Eastmond 2000: 102). In this context, the teacher leads the class, speaks most and knows everything, and students listen (Lim and Griffith 2003). Expressing one's opinion against the teacher is considered rude. This system caused students to be passive and dependent on the teacher in their learning. The English learning classroom is not exceptional, considering that 'most EFL teachers in Korea remain the primary sources of action and linguistic input - the main actors in the classroom' (Park and Oxford 1998: 107). Despite the modern era, in Korea, 'remnants of the Confucian consciousness in terms of education and learning culture still strongly impinge upon learning styles and teaching methods' (Kent 2004: 60). Despite the efforts of government to increase the students' participation in class, at present the teacher-centred English classroom is still dominant in Korea.

It seems that the hierarchy of teachers and students from the value of Confucianism in education is a barrier to learning English for Korean learners.

Education Fever and Examination Hell

The previous and current education has been playing an important role in 'the major sources of economic growth and social development in Korea' (Kim 2002: 29); however, it led Koreans to be preoccupied with educational achievement and competitive examinations. Seth (2002) said that this preoccupation of education was 'the product of the diffusion of traditional Confucian attitudes toward learning and status, new egalitarian ideas introduced from the West, and the complex, often contradictory ways in which new and old ideas and formulations interacted' (p. 6). This phenomenon is called "education fever" (*kyoyukyeol*) by Koreans themselves (Park 2009), by which they mean a 'national obsession with the attainment of education' (Seth 2002: 9). According to the review by the Organization for Economic Co-operation and Development (OECD) of South Korea in 1998, Koreans' strong enthusiasm for education is incomparable in the world (OECD 1998). It is widely known in Korea that Korean students and families spend money, time and effort on private schools or private tutoring, focusing on how to get a high score in exams. Most Koreans consider it to be a good investment for a brighter future. Some families even send their children to be educated in English-speaking countries, aiming to make them competent English speakers. However, in this case, serious social side effects have arisen over the last decade. For example, there are cases of Korean fathers living alone in Korea for several years, working to support a wife and children living abroad. Koreans call such men "a goose father or dad" (*gireogi-appa)*: in Korea, 'the geese symbolise several virtues of the Confucian tradition that new couples should follow in their married life and in the creation of an ideal family. They diligently take care of their young, sometimes traveling great distances to bring back food' (Cho 2007:52). Some geese fathers are struggling with loneliness and depression and some of them attempt suicide (Park 2014). Some of them have even committed suicide. Cho (2007) claims the causes of their suicide: 'emotional isolation from the lack of meaningful conversation, poor eating habits from eating alone, and alcohol abuse from loneliness are all common complaints

among fathers in Korea living away from their families', leading to 'disintegrated marriage, divorce, and external marital affairs - a tragic ending related to the unsustainability of wild geese families' (p. 58-59).

To such an extent, Koreans are preoccupied with the drive to learn English to make their children competent speakers of English. English education in Korea is also very important because English is given great weight in the university entrance examination, called the College Scholastic Aptitude Test (CSAT). Success in this exam is very important to enter a university with a good reputation. This is an indispensable step for 'intellectual, economic and social success in Korea' (Hong and O'Neil 2001: 188). In the social status and network, Breen (1999) points out the reason why entering a university, preferably one of the top universities in Seoul, is important and the rewards of graduating from top universities as follows:

> [S]chool and university provide Koreans with the most important social network in their life. Old Boyism works rather like the public school and Oxbridge system in that the higher the establishment is on a scale, the greater the sense of mutual support. If you are a graduate from a top university you can be confident that there are tens of thousands of 'seniors' out there who will do favours for you. (Breen 1999: 65)

Lee and Larson (2000) said that 'graduating from a high ranking university is a means of obtaining a good job, high wages, high social status, and even a good marriage' (p. 250). The pervasive perception of Korean people about the value of education is that the social and economic rewards after university benefit not only students, but their parents and family. This perception has brought about "examination hell" (*ipsi-jiok*), which Korean students 'go through while preparing for the competitive university entrance examination' (Lee and Larson 2000: 250). For example, most high school students who wish to enter universities spend all their time in their last two years preparing their exams, suffering lack of sleep and going without vacation until the university entrance examination is over (Lee and Larson 2000). In my experience, high school students usually say, "If I sleep more than four hours, I'll have no hope whatsoever of getting into Seoul National

University", a top university in Korea. There is a popular saying among Korean students, '"pass with four, fail with five", which refers to the hours of sleep thought allowable to maximize exam preparation' (Lee and Larson 2000: 251). This excessive examination hell has had negative social effects. For example, some students, even elementary school students, commit suicide. According to a report by the Education Ministry, a total of 139 South Korean students committed suicide in 2012 because of family problems (40 percent), depression (16 percent) and exam stress (11.5 percent): 88 were high school students, 48 from middle school and 3 from elementary school (AFP 2013). AFP (2013) said that 'dozens of teenagers kill themselves every year around the time of South Korea's hyper-competitive college entrance exam, unable to cope with the intense scholastic and parental pressure to secure a place in a top university'[7].

The current situation of excessive competition and examination hell was the same when I was in high school, although the English curriculum has been reformed and the university entrance exams have been revised. Koreans perceive that entering the university would guarantee a brighter future. Yet, the examination hell continues for adult learners who have entered or graduated from universities, seeing that they need to get high scores in English proficiency tests for the purposes of employment or promotion; e.g. TOEIC (Test of English for International Communication) or TOEFL (Test of English as a Foreign Language) or for academic purposes, such as TOEFL or IELTS (International English Language Testing System). Education fever and "English fever" were caused by Koreans' willingness to invest money, time and energy into learning English, hoping that it would secure a bright future for them and their families. However, it seems that it brought about negative by-products, such as examination hell, goose fathers and barriers to real English learning, by regarding English ability as a high score on standardised tests and a tool of climbing up the social and economic ladder in Korean society.

[7] Retrieved on 02.August.2015 from http://www.nation.com.pk/international/21-Aug-2013/s-korean-school-suicides-total-139-last-year

2.2.3 Contextualisation: Models of Reading

To overcome the barriers to real English learning, here I discuss the models of reading for Korean children. I explain the reasons why reading skills are important and why I focus on reading skills in this thesis. In Korean society, as discussed above, there are a number of barriers to learning English, particularly to enhancing communicative competence, in which Korean children need to develop not only the four skills of English language itself (listening, speaking, reading and writing), but to learn test-taking skills to get a high score. However, the English curriculum in the elementary school of Korea stresses only speaking and listening skills to follow the trend of CLT, leaving the reading skills behind and not dealing much with writing skills. It is widely believed in Korea that speaking and listening skills have been the weakest skills for Koreans, who were taught English with traditional methods, focusing on teaching grammar and translation. I therefore agree with the educational policy that we need to make every effort to strengthen these two skills. However, reading skills are also important in terms of the Korean context and the realistic requirement of reading English. In the Korean context, the large class size, short lesson period and shortage of competent speakers in classrooms, supply students with limited opportunities for practising English speaking and listening, mean that the first step and more frequent exposure to English is mainly through reading the textbooks or new vocabulary cards. Also in my English learning experience and my teaching experiences, Korean students are likely to get initial exposure or input of English through reading rather than listening. Learners receive English input through textbooks or storybooks in the classroom context and through the Internet outside the classroom. In particular, the Internet provides students with more opportunities for being exposed to English. It enables them to engage in individual and social activities, such as surfing the Internet, e-mailing, chatting, blogging, communicating with their teachers and classmates via their school websites or their own class website or blog, searching information for school homework, and using educational websites for English learning. It seems that reading is important in the Korean context because reading is an initial input stage of English with more frequent exposure opportunities than listening or speaking.

Another reason for the importance of reading is that English exams or tests for assessing students' English abilities are mainly composed of reading texts. The goal of the English Curriculum is to enhance speaking and listening skills. However, in reality the items of exams require students' reading skills such as reading the texts and selecting the right answer in multiple-choice tests. Previously, I criticised the Korean educational context for focusing on obtaining a high score in English exams or tests as a barrier to learning real English. Nonetheless, I deal with exams or tests here because, practically, Koreans, including me, cannot completely disregard them for surviving in the highly competitive Korean society, in which successful English education and results of exams or tests are perceived as keys to success and loads to carry for life. English exams or tests involve mostly text-focused reading sections, because of the difficulties in marking speaking and writing tests. For example, in the university entrance examination, the question items are mostly for identifying reading abilities apart from listening questions in part. Although recently the government announced a new university entrance examination, to be implemented in a few years, adding speaking and writing items, Korean people tend to be sceptical about the action of the new policy because the policies or systems have been reformed too frequently and quickly. In the middle and high school exam systems, English test consists of reading comprehension items and partly listening ones. In the elementary school context, after having scrutinised the English test papers of diverse schools, during my teaching period in Korea and the data collection period, I found that most of them consist of vocabulary tests in the both lower and higher grade tests, reading comprehension tests and simple listening tests. Each level of English tests considers reading as an important part among the four skills. Students are required to achieve reading and comprehension skills to be successful in English exams in the Korean context. Song (2000) stresses the importance of reading in the Korean context and the advantages of teaching English reading to Korean learners without sufficient supply of competent speakers in schools: it is the most practical way, the most feasible input to EFL learners, the way of gaining information from books or the Internet and the most important parts of university entrance exams and tests.

Despite the importance of English reading in Korea, however, the model of reading in the classroom has not changed a lot since the introduction of English as a school subject. The normal model of English reading with a textbook in classroom is to firstly learn unknown vocabulary through quiz or tests, secondly to read each sentence, and in the last to translate into Korean. I assume that the reasons are because of the teacher-led classes with large sizes and mixed abilities or the irrelevant training for teachers, not 'oriented toward communicative competence but toward grammar translation' (Jeong 2004: 41). Nonetheless, there might be individual English teachers who make an effort to employ different models of reading, for example extensive reading using authentic materials such as English newspapers or Internet articles. I am one of the teachers who follow the new models of reading, considering how to stimulate Korean children to engage in reading English and to improve their reading skills. Instead of the ordinary method of using paper books to read English texts, I selected the use of MMORPGs as a method for teaching reading English. I will discuss the potential of MMORPGs for English learning in detail in Chapter 5. The reason why I selected computer games is based on my conjecture that, in general, children tend to like playing games, including computer games, and spend a lot of time playing games, although individual children's preferences are different. The reason why I selected MMORPGs for reading is that their environments are based on rich text-based contexts in English, which are mainly involved in the interface between playing games and the programs, requiring that players read and understand the texts, which give information or hints about how to complete the tasks and go up the next levels. Without this reading process, players are unable to proceed to the next stage. It seems that the use of MMORPGs can be a model of English reading in the Korean context, providing repeated exposure to the texts and reading opportunities: Korean young learners can improve their reading skills, using some strategies to understand the texts better.

2.3 Children and Technology

My participants in this study are today's Korean children whose lives are surrounded with technology. Among the various methods of learning English, therefore, I would like to develop a method in using a tool of technology as a facilitator. That was the starting point to think about using computer games for Korean children's English learning. I shall argue that children's lives and their characteristics in technology need to be considered, because they are a new generation of 'tech-savvy' learners and a 'new kind' of learner (Bennett and Maton 2010: 322).

Some authors have argued that today's new generation has been immersed in digital technologies and therefore they think, behave and learn differently from previous generations of learners (for example, Oblinger and Oblinger 2005; Palfrey and Gasser 2008; Prensky 2001a; 2001b; 2001c; 2009; Tapscott 1997; 1999; 2009). Prensky (2001b: 1) writes that 'our students have changed radically. Today's students are no longer the people our educational system was designed to teach'. To identify new generations of children, Prensky (2001b) has coined the well-known term "digital natives", writing that they 'have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age' (p. 1). Other common terms as alternatives of digital natives (Prensky 2001a; 2001b; 2001c; 2009) are "Net Generation" (Oblinger 2003; Oblinger and Oblinger 2005; Tapscott 1997; 2009), "Millenials" (Howe and Strauss 2000), "Generation Y" (Jorgensen 2003) and "Digital Generation". To identify the previous generations as an opposite term of digital natives, Prensky (2001a) coined the term "digital immigrants", who were born before 1980 (Helsper and Eynon 2010). Prensky (2001a) described the digital immigrants as those who 'were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology' (Prensky 2001a: 46). Brooks-Young (2005) redefined the digital immigrant as those who 'use technology, but often attempt to bring this use into a framework they find comfort in; for example, they might print material

accessed on the Internet before reading it' (p. 8). Prensky's view (2001a) is that, although digital immigrants including teachers come to learn digital technology willingly or forcedly, they will never be as comfortable as digital native-born children. In the school context, Prensky (2001b) said that the big problem of today's education is that teachers are also digital immigrants and they are uncomfortable with computers and 'speak an outdated language (that of the pre-digital age) … struggling to teach a population that speaks an entirely new language' (p. 2). Simensen (2010) agrees with Prensky's (2001b) argument, saying that 'the most pressing question from an educational point of view is the discrepancy between the language pupils are exposed to in the media and society in general, and the language they meet in the educational system' (p. 482). Henry's (2013) work is consistent with Prensky's (2001b) and Simensen's (2010) arguments, arguing that the gap is between two different cultures, one in school and one out of school, in which students encounter English, and narrowing the gap between them is an important issue.

However, some authors (Bayne and Ross 2007; Bennett et al. 2008; Bennett and Maton 2010; Helsper and Eynon 2010) suggested that Prensky's assumptions and the dichotomy between digital natives and digital immigrants could be misleading and dangerous. This is because he has based his definitions on the age factor only. They propose that we should consider more diverse factors in terms of the necessity of radical education change for the new generation. To transcend the distinction of the natives and immigrants, Prensky (2009) proposed the new concept of "digital wisdom" and "homo sapiens digital", stressing that the digital immigrants can also attain digital wisdom by enhancing their digital capabilities with their innate capacities. His new term, digital wisdom, seems to be more acceptable having a wider scope than previous ones. However, I shall argue that the "visitors" and "residents" continuum, which was proposed by White and Le Cornu (2011), is a more relevant replacement for the concepts of the digital natives and immigrants. Instead of age, White and Le Cornu (2011) considered the different ways of how people behave in using digital tools, according to motivation and context: visitors, literally, are likely to visit the Web as a tool to obtain certain goals,

engaging little in online interactions; residents, literally, seem to reside online as another place to interact with other people, sharing information or opinions about their lives and working with digital identities or persona. The concept of visitors and residents is suggested as a continuum, not as binary distinction, because 'individuals may be able to place themselves at a particular point along this continuum rather than in one of two boxes' (White and Le Cornu 2011: 10). In 2012, White, Le Cornu and colleagues have developed their model and suggested the "modes" of visitor and resident rather than categorising individuals into visitors and residents (Connaway et al. 2012; White et al. 2012). This model is likely to be a more flexible and useful model than the previous ones, identifying the modes of use and behaviours in digital engagement as resident mode and visitor mode, which can change in different contexts and situations (Connaway et al. 2012; White et al. 2012).

With this model, the distinction of digital users between adults and young people, including children, seems to be blurred and less relevant. Nonetheless, some authors (Bayne and Ross 2007; Bennett et al. 2008; Brooks-Young 2005; Jones and Shao 2011; Oblinger 2003; Oblinger and Oblinger 2005) suggested characteristics of today's children, considering their learning and technology. Bayne and Ross (2007) argue that children are immersed in digital technologies with 'speed of access, instant gratification, impatience with linear thinking and the ability of multi-task', creating a different approach to learning. The new generation of students tend to receive information quickly, multitask and prefer active rather than passive learning (Bennett et al. 2008; Jones and Shao 2011; Oblinger 2003; Oblinger and Oblinger 2005), feeling more comfortable working in a hyperlinked environment (Brooks-Young 2005: 8). In the children's use of technology, Prensky (2001a) argues that 'teenagers use different parts of their brain and think in different ways than adults when at the computer' and 'as a result of repeated experiences, particular brain areas are larger and more highly developed, and others are less so' (p. 44). For children, 'the computer is a friend. It's where they have always turned for play, relaxation, and fun' (Prensky 2001a: 63). Prensky (2001a) calls children the games generations, who are '*native speakers* of the digital language of computers, video

games and the Internet' (Prensky 2001a: 46). Children's use of digital technology can be considered positively as in Prensky's view; however, some concerns and negative sides can be also addressed. Examples of negative and controversial issues are online safety, violence of video games and cyber-bullying (Walker and White 2013). Despite the controversy of children's using technology, I believe in the positive sides of digital technology, and advocate the beneficial impact of computer games upon Korean children's English learning (see Chapter 5).

2.4 10-11 Year Old Korean Children's English Learning

2.4.1 Debate on Learning English and Age

In my experience, Korean parents generally believe that the younger a child begins to learn English, the better. They are therefore willing to send their children to private English schools or even expensive English kindergartens at an early age. This comes from the recommendation of the 'early education movement': in particular, stress placed on 'early English education' by the Ministry of Education of Korea in the 1980s (Lee 2009: 95). It was based on the critical period hypothesis in L2 (Second Language), according to which 'when timing is critical, a particular development can only take place within defined periods of time' (Pinter 2011: 49) and 'the brains of young children are particularly adaptable to acquiring language before puberty' (Kirsch 2008: 3). There has been research arguing for and against the critical period hypothesis, comparing the differences between adults and children in L2 acquisition, 'with regard to rate and level of ultimate attainment' (Philp et al. 2008: 8). A critical view on the critical period hypothesis is that 'the only advantage of an early start is the total amount of time spent actively on learning a language' (Kirsch 2008: 4). This is because some research studies suggest that older learners showed similar (Pinter 2011) or better L2 acquisition in some areas (Kirsch 2008). On the other hand, the view supporting the critical period hypothesis is based on some research studies proposing that younger learners showed relatively better performance with regard to pronunciation or oral fluency (Kirsch 2008; Pinter 2011) or accent (Cameron 2001). The debate on the critical

period hypothesis has not reached a conclusion. I cannot argue that the critical period hypothesis is correct or applicable to Korean language learners or that 10-11 year old children are already past the 'cut-off point' (Kirsch 2008: 3). However, in terms of younger learners' native-like pronunciation, I support the perspective of the critical period hypothesis, although this is only one aspect of language learning. The critical period hypothesis suggested that 'native-like pronunciation was an unrealistic goal for older second language learners' (Lightbown and Spada 2013: 68). I have encountered some children who were able to pronounce very clearly and naturally. They had never been abroad, but had simply started learning English at the very early age of four or five years. They attended English kindergarten and had classes with native speakers. I cannot say that their overall English proficiency was higher than others'; one British English teacher was surprised at their pronunciation and said that it sounded very natural, like native speakers. From a different perspective, I saw some adults who had studied in the UK from 12 or 13 years old and whose English proficiency was excellent; their pronunciation and accent were not so natural. It is possible that these two cases are not applicable to individuals. Some people even say that pronunciation is not important, but that English proficiency is more important. I do not want to say whether this is true or false: the point is that the phenomena happened to some younger and older Korean language learners. In the Korean context, according to Lee (2009), the employment of Primary ELT in Korea has raised people's awareness positively since 1997, claiming that 'early learning of English is very necessary and beneficial' (p. 98). On the other hand, the 'negative effect has been that there is pressure for ever-earlier starts' (Lee 2009: 98). It seems more likely that the starting age alone does not decide the learner's overall performance, but that various factors would affect it, such as 'the type of instruction and the teachers' competence' (Kirsch 2008: 3). Santrock (2007) said that 'the pattern of human development is created by the interplay of several processes - biological, cognitive, and socioemotional' (p. 16), processes which are 'intricately intertwined' and 'interact as individuals develop' (p. 17). It seems undesirable to stick to one aspect of these processes or to a specific age. We need to consider the characteristics of 10-11 year old English learners and understand 'how children think and learn' (Cameron 2003: 111).

2.4.2 Transitional Period in Korean Education System

The age of 10 to 11 years is transitional in Korean education system. Korean Ministry of Education (2008) clarified that 10-11 year old students' English education should be prepared in advance in conjunction with middle school curriculum. They need to take active parts in their learning and accustom themselves to do that and they need abilities and habits of English learning using strategies for themselves (MoE 2008). According to Santrock (2007), 10-12 years of age children enter adolescence, which is 'the developmental period of transition from childhood to early adulthood' (p. 17). Physical changes begin to occur and they seek independence and identity (Santrock 2007). In my experience, they often seemed to regard themselves as teenagers, considering that they were not children any more. When I treated my students as children, they insisted that they were already mature enough to be independent and to recognise world knowledge. Nonetheless, their behaviour showed the tendencies of pre-adolescents: they still behave like children who usually lack patience and responsibility about what they learn in English classroom. It is natural to feel that learning a foreign language is hard and boring. Most Korean teenagers in middle school and high school have recognised that the English language is significant these days. They are willing to spend their time learning English, controlling their instincts to play, although they are also struggling with learning a foreign language; 10-11 year old children seem to prefer still going outside to play with friends. There seems to be a gap between their cognitive development and physical behaviours: their mental maturation remains behind their physical development. In this transitional period, however, they need to overcome this gap for their successful middle school English education in Korea.

As a way of preparing for middle school English class, 10-11 year old students need to cultivate a habit of self-studying, even out of school. This is because the level of middle school English is completely different from one of elementary school English: number of vocabulary rises; sentences of English textbook lengthens; and amount of reading texts increases. Korean people believe that the best way is to form a habit of studying themselves. To help 10-11 year old students get used to self-

studying, it is required the premise that the Korean education system should shift the traditional view from teachers to learners: teacher should help and support learners to be independent and responsible for their learning. In the context of the language learning classroom, a good teacher might be 'one that helps learners explore, express, exchange - and ultimately expand - their views, from within [not a sage on the stage, but a guide on the side]' (Ackermann 2004: 19). In Korea, an ideal educational environment would be one in which the teacher 'participates with the child in the processes of discovery and learning' by sharing her/his 'knowledge with the child by living it' (Gruber and Vonèche 1977: 692); and that 'child-centred pedagogy … leaves children free to pursue their path at their own pace along the universal road of cognitive development' (Painter 1998: 18). It is also supposed that learning is the process of an individual's personal understanding coming from their experiences, in contrast to the traditional view of learning as the accumulation of facts or knowledges. Piaget and his colleagues studied children's psychology and cognitive development (Piaget 1926; 1955; 1958; Piaget and Inhelder 1969), proposing that 'children construct knowledge for themselves by actively making sense of their environment' (Pinter 2006: 5-6). It is based on the constructivists' perspective, regarding learning as the process by which 'individuals are actively involved right from birth in constructing personal meaning' (Williams and Burden 1997: 21). 10-11 year old children can carry out their learning actively, constructing knowledge for themselves from their experience and environment. If a learner is interested in learning and engages in learning actively, the outcome of the learning is more productive. To help them learn actively, concrete tasks and activities are needed, since they are involved in Jean Piaget's (1896-1980) concrete operational stage (Huitt and Hummel 2003; Pinter 2006; 2011). At school, teachers need to provide them with opportunities of playing games or doing activities with specific pictures or objects. By carefully monitoring and collecting regular feedback about children's interests and needs, teachers can choose 'suitable materials that are developmentally appropriate for the given age group in a given context' (Pinter 2006: 10). When it comes to setting language tasks, teachers should consider whether tasks are matched with learners' English levels. In Korean school context, however, it is very hard to do that, because of time limit, number of students,

teachers' qualification and learners' individual differences. Teachers' abilities affect the implementation of such tasks or activities in class. Learners' individual English levels and development degrees are different, although they are in the same developmental stage. The characteristics of any one child are also diverse, because each child is influenced by cultural and social factors as well as individual factors, such as family relationships or teacher and friend relationships. Therefore, they need a personalised learning, considering their English levels and differences. To support this perspective, Korean Ministry of Education has provided teachers with supplementary learning program to engage underachieved students in learning (MoE 2008). As an alternative way, Kent (2004) argues that language learning using a computer can help with 'transitioning students from roles of somewhat dependent and passive learners to more active, autonomous and perhaps even more analytical ones, well-suited to the independent creation of knowledge through the use of multimedia' (p. 74). This is because 'cyberspace is a highly learner-centred and self-regulated learning environment, where learners must take responsibility for what and how to learn' (Kent 2004: 74). It helps learners to be more autonomous, independent and self-directed 'away from more teacher dependent means of acquiring knowledge' (Kent 2004: 72). In conjunction with this perspective, Korean Ministry of Education has offered digital materials for students' self-directed learning (http://de.edunet4u.net) and English education channels (http://ebse.co.kr/TSA) for learners, teachers and parents (MoE 2008). Although it is uncertain that those methods have been really implemented in classroom and home, the focus on learners and the use of computer and digital materials by the Korean government look desirable.

Another way of helping 10- to 11- year- old learners construct their habit of active learning might be to increase motivation. This is because their concentration span is not too long. We need to provide stimulus for holding their concentration for long and keep doing. Although children are initially eagerly curious about new things, including learning a new language, they soon tend to lose their curiosity. When they realise that learning the language is difficult, they lose their curiosity sooner. It is quite common for Korean children to receive supplementary lessons

from private English institutes, private tutors or home-study materials. Without their concentration and interest, those lessons and materials would be waste of time. Referring to this phenomenon, Cameron (2001) writes that 'children bring to language learning their curiosity and eagerness to make sense of the world. They will tackle the most demanding tasks with enthusiasm and willingness. Too often, these early gifts are turned to fear and failure' (p. 246). In the future, this failure could bring about difficulty in following middle school lessons and achieving higher marks in English exams. Some students may be frustrated at their low marks and lose their interest in English. In the end, they could give up studying English. To prevent this, a range of ways to motivate learners need to be considered. Here, I suggest a way to attract and hold 10-11 year old learners' attention for learning English: playing MMORPGs. A number of features of MMORPGs stimulate learners to keep playing: enjoyment, challenge (Smed and Hakonen 2003), hard fun, tasks, avatars (Sandford and Williamson 2005), competition (Dempsey et al. 2002) and rewards (Kapp 2012). I will discuss the features of computer games in detail in Chapter 5. Most of all, in classroom, competition and rewards can offer opportunities to children to be actively involved in learning. When competition is used effectively in pair or group works, it could enable the students to engage in learning English. For example, when I used games as a reinforcement of that day's lesson, the competition between individuals or teams to win the game led them to be more concentrated. This is because 'children have a very strong sense of play and fun' and games provide fun and 'a very effective opportunity for indirect learning' (Halliwell 1992: 6). It is certain that when a reward is given after winning a game, the effect can be greater. For example, I awarded a sticker each time the game was won, including doing homework and participating in class with a good attitude. Whenever they had collected a certain number of stickers, I gave them gifts, which they usually wanted. My strategy was very successful to my pupils and parents, although Scott and Ytreberg (1990) advised teachers to 'avoid rewards and prizes' and use 'other forms of encouragement' (p. 6). In classroom, teachers' compliment and positive opinions encourage children's learning and achievements. Berk (2013) writes that 'well-behaved, high-achieving students typically get more encouragement and praise, whereas unruly students have more conflicts with

teachers and receive more criticism from them' (p. 643). She suggests that 'educational self-fulfilling prophecies' (p. 643) would affect children's abilities as follows:

> Children may adopt teachers' positive or negative views and start to live up to them. As early as first grade, teachers' beliefs in children's ability to learn predict students' year-end achievement progress after controlling for students' beginning-of-year performance. This effect is particularly strong when teachers emphasize competition and publicly compare children, regularly favouring the best students.
>
> (Berk 2013: 643)

Teachers' roles affect children's learning. Furthermore, teachers influence students as role models (Carrington and Skelton 2003; Lumpkin 2008). They need to be 'moral' and 'informational' role models and 'mentors', according to Chung's (2000) definitions of role models (p. 640). Nonetheless, in Korean classroom, it is very hard for teachers to give feedback and praise to every single student, due to large class size, time limit and teachers' disposition. However, MMORPGs provide instant feedback and rewards for each individual player whenever completing tasks. This might encourage children to learn English and keep going. Considering children's developmental stage, computer games and MMORPGs provide concrete visual materials including pictures, backgrounds and maps. MMORPGs provide specific tasks or quests to be completed, intriguing that children participate in their playing actively. Children can personalise the contents of their gameplaying, according to which task or quest they choose first and later. When it comes to applying MMORPGs to classroom, the contents of the tasks can be personalised, in accordance with learners' levels and styles. Kapp (2012) insists that we need to consider why people play games: 'its for the sense of engagement, immediate feedback, feeling of accomplishment, and success of striving against a challenge and overcoming it' (p. xxii). He said that 'this is what learning is about' (Kapp 2012: xxii). In English-based MMORPGs, learning English might take place. Children might engage in learning English and get motivated to learn English and keep learning.

This might lead to a habit of children's learning English. I will discuss the potential of MMORPGs for Korean children's English learning in detail in Chapter 5.

2.4.3 Scaffolding, ZPD, Mediation and MMORPGs

10-11 year old Korean learners need support and help to enhance their English learning and prepare for middle school curriculum. In classroom, teachers and peers plays important parts in children's learning as mediators (Williams and Burden 1997). Teachers can help and increase children's learning. When children are unable to solve problems, they need teachers' assistance to solve them. This is "scaffolding". This term was first coined by Wood et al. (1976). 'A scaffolding process … enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts' (Wood et al. 1976: 90). In other words, 'cognitive support given by teachers to learners … help(s) them solve tasks that they would not be able to solve working on their own' (Fernandez et al. 2001: 40). This scaffolding relates to Vygotsky's (1896-1934) term, the zone of proximal development (ZPD). The ZPD means the difference between a child's 'actual developmental level as determined by independent problem solving [and] potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky 1978: 86). The ZPD stands for a 'potential *area of expansion* that each individual has at their disposal to overcome their limits in learning' (Ackermann 2004: 22). This learning takes place 'with what the child already knows and carefully builds on it according to the child's immediate needs to go forward' (Pinter 2006: 11). With help from teachers, children's learning process might be accelerated and their potential might be increased. However, teachers do not meet the needs of 10-11 year old learners because teachers have difficulties in assisting each individual's learning, due to time limit and large class size in South Korea.

Children can help each other through group work or activities: 'they are able to work with others and learn from others' (Scott and Ytreberg 1990: 4). As 10-11 year olds become 'more attentive while listening to one another and working collaboratively on tasks' (Pinter 2011: 12), teachers can use 'working in groups to

get experience seeing from another's perspective' (Huitt and Hummel 2003: 2). It is based on Lev Vygotsky's (1896-1934) social constructivism: 'children learn through acting in the world … through relating to people and things' (Ackermann 2004: 21). Social influence is significant factors in children's learning and development: such as 'the social environment, the cultural context and in particular the influence of peers, teachers and parents engaged in interactions with children' (Pinter 2006: 10). As early adolescence (Huitt and Hummel 2003), 10-11 year olds can learn through interacting and collaborating with peers. Due to time limit and big size class, however, affording opportunities for conducting group work or collaboration between peers in Korean classroom is not so easy. MMORPGs might fill this gap. MMORPGs can afford scaffolding for children's learning. Computer can play a role as a '*medium* through which a teacher and learner can communicate' (Jones and Mercer 1993: 21-22). MMORPGs can be a mediator to afford more opportunities for learners to interact and communicate with other learners in English. Rankin et al. (2006b) claim that 'MMORPGs sustain social interaction between players and serve as the catalyst for fostering students' grammatical and conversational competence as students chat in a foreign language while playing the game' (p. 2). They also argue that 'without social interaction, students lack motivation, opportunities for practicing target language skills, and immediate feedback; all three components are crucial if students desire to increase their communicative abilities in the target language' (Rankin et al. 2006b: 2). According to Rogoff's (1990) 'concept guided participation', players actively engage in playing MMORPGs with 'more skilled partners and their challenging and exploring peers' (p. 8) as 'both guides and collaborators' (Gregory et al. 2004: 8) to get hints or advice for completing tasks successfully or quickly. In this case, peer players or more experienced ones can be mediators in ZPD. 'Players need to collaborate with other players in order to achieve certain goals' (Kern 2011: 209). 'Communication plays a central role' (Kern 2011: 209) in playing MMORPGs and to communicate with each other, language is a 'tool (a symbolic artifact) that mediates between individuals and their environment' (Gass and Selinker 2008: 285). Communication with other players can engage learners in keep playing the game and simultaneously learning English. Considering 10-11 year old Korean children's characteristics, interaction

and collaboration with others can provide motivation to stimulate learners' engagement to play longer and learn more. When it comes to applying a MMORPG game to an English class, a teacher can provide a task, in which the teacher and pupils play the game together or pupils perform peer or group works. Throughout this process, they might collaborate to solve the task and learn English at the same time. In the realm of MMORPGs and English learning, the scope of the mediators of ZPD can expand from teachers and peers to computers, computer games and MMORPGs. I would argue therefore that MMORPGs can be a supplementary English learning tool to provide 10-11 year olds with the interactive and collaborative learning environments.

2.5 Summary

The first part of this chapter has examined the context of English language teaching in South Korea. In ELT in Korea, three sections have been presented: the status of ELT and challenges in ELT; the cultural and social barriers in ELT; and contextualisation of the model of reading in the Korean context. The second part has reviewed the context of today's Korean children and technology, in which their lives are closely connected with technology. The third part has discussed 10-11 year old Korean children's English learning, focusing on learning English and age, transitional period in Korean education system and scaffolding, ZPD, mediation and MMORPGs. The next chapter reviews the literature of vocabulary learning and vocabulary learning strategies in EFL contexts as the first issue of English learning.

Chapter 3 ISSUES IN ENGLISH LANGUAGE LEARNING (1): EFL VOCABULARY

3.1 Introduction

As discussed in Chapter 1, research about EFL young learners' English vocabulary learning in MMORPGs is relatively rare. This study about online vocabulary learning is a piece of exploratory research. I do not wish this study to be constrained by previous frameworks or models. However, it is necessary to examine the traditional (or off-line) vocabulary learning strategies and models in EFL contexts, although they are not based on studies of children; and previous traditional research based on Korean children, in order to provide the foundation of my study. They will provide the evidence when I discuss which strategies overlap with my research and which ones are newly found from my research context (see Chapter 8).

In this chapter, I review the features of vocabulary learning in EFL contexts, examining lexical phrases. I then discuss vocabulary learning strategies in EFL contexts, reviewing: the vocabulary learning steps of Brown and Payne (1994) and Nation (2001); the vocabulary learning strategies classification of Gu and Johnson (1996) and Schmitt (1997, 2000), which seem most suitable for my data; and previous research about vocabulary learning strategies of elementary school students conducted in South Korea.

3.2 Vocabulary Learning in English as a Foreign Language (EFL)

3.2.1 Vocabulary and Vocabulary Learning

Foley and Thompson (2003) write that 'all languages have words, a vocabulary or lexicon' (p. 10). However, defining the concept of a word or vocabulary is difficult (Jackson and Amvela 2007; Read 2000; Trask 1999). Read (2000) and Jackson and Amvela (2007) have viewed the term "word" and "vocabulary" differently;

vocabulary involves more than single words or stock of words. A word is ‘a complex entity made up of a set of properties and features’ (Gu 2005: 17) and the term ‘word’ is ‘too general to encapsulate the various forms vocabulary takes’ (Schmitt 2000: 1). Therefore it is hard to make a simple or single definition (Singleton 1999). In this study, I use vocabulary as a broader term than word; I use a word or words when they are used specifically. I look at this question later in this chapter.

Vocabulary is an important part of language learning. Without vocabulary knowledge, people are incapable of communicating (Al-khasawneh 2012) so building up a vocabulary is essential in learning a second or foreign language (Cameron 2001; Lewis 2002a; 2002b; Sökmen 1997). Until around 1980, the aspect of vocabulary acquisition was largely neglected in the field of second language acquisition (SLA) (Meara 1980). According to Meara (2002), Nation’s first book, “Teaching and learning vocabulary” (1990), was the first substantial text on second language vocabulary, and, after Nation’s book, several edited books were released (for example, Coady and Huckin 1997; Huckin et al. 1993; Schmitt and McCarthy 1997). In SLA research, vocabulary acquisition has shifted from a neglected area towards one of the most important and active areas (Lightbown and Spada 2006; 2013; Meara 2002).

Nowadays, it is widely known that learning vocabulary is essential to improve English abilities in EFL contexts. This raises the issue: “what does learning vocabulary mean, and how?” The issue of “how to learn vocabulary” will be considered in section 3.3. Here I attempted to find the answer to “what learning vocabulary means” in the aspects of “knowing a word”. I consider the three aspects of knowing a word: knowing the meaning of a word (Aebersold and Field 1997; McCarthy 1990; Rupley et al. 1999); knowing the meaning and form of a word (Thornbury 2002); and knowing the form, meaning and use of a word (Nation 2005; 2006). McCarthy (1990) focused knowing a word on meaning. Thornbury (2002) stresses both the meaning and form of a word, considering that ‘knowing the meaning of a word is not just knowing its dictionary meaning - it also means knowing the words commonly associated with it (its collocation) as well as its

connotations, including its register and its cultural accretions' (p. 15) and further, 'knowing a word is the sum total of all these connections - semantic, syntactic, phonological, orthographic, morphological, cognitive, cultural and autobiographical'. (p. 17). Nation (2005; 2006) proposed that knowing a word is concerned with the three aspects of a word: 'knowing the form of a word; knowing the meaning of a word; and knowing how a word is used' (Nation 2005: 582-584). The examples Nation (2005) gives are as follows:

- Knowing the form of a word: *spelling, sound and word parts*
- Knowing the meaning of a word: *linking its form and meaning, knowing a concept for a word and what it can refer to, and knowing what other words of related meaning it can be associated with*
- Knowing how a word is used: *the grammar of the word including parts of speech and sentence patterns it fits into, collocates of the words and whether the word is formal or informal, polite or rude, used mainly by children and so on, or has no restrictions on its use*

(Nation 2005: 583-584)

When learners learn vocabulary, they may need to consider the three aspects of knowing a word: form, meaning and use of a word from Nation's view (2005; 2006). It seems to me that his view can be related to strategies for vocabulary learning. I will therefore deal this with vocabulary learning strategies in section 3.3.

3.2.2 Lexical Phrases

The Definition of Lexical Phrases

Sometimes a chunk of two or more words seems to behave almost like a single word: 'multiword or multiform strings produced and recalled as a chunk, like a single lexical item, rather than being generated from individual items and rules' and they are referred to as 'formulaic language units' (Wood 2002: 3). There are two dominant notions as alternative terms of formulaic language units linking to child language acquisition. One notion is "lexical phrases" coined by Nattinger and DeCarrico (1992). The definition of lexical phrases is 'multi-word lexical phenomena

which are conventionalised form/function composites that occur more frequently and have more idiomatically determined meaning than the language that is put together each time' (Nattinger and DeCarrico 1992: 1).

From a different point of view, lexical phrases can be described as prefabricated phrases which stress the cognitive aspect. They are 'stored in long-term memory as if they were single lexical units' (Wood 2002: 2). Wood (2002) refers to these prefabricated phrases as 'formulaic language units' (p. 3) and Wray (2000) and Wray and Perkins (2000) named them as 'formulaic sequences'. Wray (2000) and Wray and Perkins (2000) define a formulaic sequence as:

> A sequence, continuous or discontinuous, of words or other meaning elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar.
>
> (Wray 2000: 465; Wray and Perkins 2000: 1)

Conklin and Schmitt (2008) write that a formulaic sequence is more than 'strings of words linked together with collocational ties' and 'much of the communicative content of language is tied to these phrasal expressions' (p. 73). Due to their 'pragmatic functions' (Li and Schmitt 2009: 89) and 'utility' in 'language use' (Conklin and Schmitt 2008: 73), they become significant in 'language acquisition and production' (Wood 2002: 13) and particularly in 'communication' (Wood 2006: 14). In fact, the notions of lexical phrases and formulaic sequences looked similar to me, but I selected the term of lexical phrases. This is because the lexical phrase approach was developed by ELT practitioners with language teaching concerns in mind, and is familiar to teachers.

The Classification of Lexical Phrases

I was unable to find the existing or suggested classification of lexical phrases in computer game contexts such as RuneScape or other MMORPGs. Although my study is exploratory in nature, I need a foundation to build up my research framework. I therefore studied the kinds or classes of lexical phrases suggested by

Lewis (2002a and 2002b), Nattinger and DeCarrico (1992) and Wray and Perkins (2000). Among the three classes, I used Lewis' classification in this study, although his classification was not described in formal academic outputs such as peer-reviewed articles. This is because Lewis' classification was most suitable for my context; it was written with EFL in mind, which is relevant to my EFL context. The classification of lexical phrases by Lewis (2002b: 92-94) are polywords, collocations and institutionalised expressions, the features of which are as follows:

- POLYWORDS: 'they are relatively short – two or three words – may belong to any word class, and the meaning of the whole group may range from immediately apparent or totally different from the component words'

  (Lewis 2002b: 92)

- COLLOCATIONS: 'collocations describe the way individual words co-occur with others. The pair of words which can co-occur are, of course, almost infinitely numerous'
  (Lewis 2002b: 93)

- INSTITUTIONALISED EXPRESSIONS

- 'Short, hardly grammaticalised utterances: Not yet. Certainly not. Just a moment, please.
- Sentence heads or frames – most typically the first words of utterances, serving a primarily pragmatic purpose: Sorry to interrupt, but can I just say…
- Full sentences, with readily identifiable pragmatic meaning, which are easily recognised as fully institutionalised (Lewis 2002b: 94)

In the Lewis' (2002b) classification, however, the range of collocation was too broad and I found a number of phrasal verbs in RuneScape, so I replaced "collocation" with "phrasal verbs" for my classification, putting a narrow focus on phrasal verbs. The term of collocation can be defined as 'those combinations of words which occur naturally with greater than random frequency' (Lewis 2002a: 25) with the features of 'partnership or co-occurrence of words' (Hashemi et al. 2012: 556), so phrasal verbs could be regarded as a kind of collocation. Instead of collocation,

therefore, phrasal verbs were added to my classification of lexical phrases with polywords and institutionalised expressions.

Phrasal Verbs

Another classification of group of words is phrasal verbs defined as a verb consisting of 'a verb and a particle' (McCarthy and O'Dell 2004: 6); 'verb-particle combinations', known as 'particle verbs', or 'separable verbs' (Cappelle et al. 2010: 3). The term "particle" means 'small words … as prepositions or adverbs' (McCarthy and O'Dell 2004: 6). Lewis does not offer his own classification of phrasal verbs, so I referred to the suggested classifications of Biber et al. (1999) and Alexander (2011). Biber et al. (1999: 403) suggested four types of phrasal verbs: phrasal verbs, prepositional verbs, phrasal-prepositional verbs and multi-word verbs as follows:

- Verb + adverbial particle: PHRASAL VERBS, e.g. *pick up*
- Verb + preposition: PREPOSITIONAL VERBS, e.g. *look at*
- Verb + particle + preposition: PHRASAL-PREPOSITIONAL VERBS, e.g. *get away with*
- Other MULTI-WORD VERB constructions, notably:
  verb + noun phrase (+ preposition), e.g. *take a look (at*);
  verb + preposition phrase, e.g. *take into account*;
  verb + verb, e.g. *make do*

(Biber et al. 1999: 403)

Alexander (2011: 116-121) also classified the four types of phrasal verbs into Type 1, 2, 3 and 4 as follows:

- Type 1: verb + preposition (transitive)
- Type 2: verb + particle (transitive)
- Type 3: verb + particle (intransitive)
- Type 4: verb + particle + preposition (transitive)

(Alexander 2011: 116-121)

With reference to the classifications of Biber et al. (1999) and Alexander (2011), I made my classification of phrasal verbs, which fits into my context, according to my analysed data: prepositional phrasal verbs, particle phrasal verbs, particle-

prepositional phrasal verbs and multi-word items. The multi-word items might be not always considered to be phrasal verbs, but I found some examples involved in the classification in RuneScape. I therefore added it to my classification. Along with the four groups of phrasal verbs, I found delexical verbs in my data and added them into the category of phrasal verbs, because delexical verbs are verbs with multi-word combinations so it is likely to get involved in the groups of phrasal verbs as a broader term. McCarthy and Carter (2003: 6) write that 'high-frequency verbs such as *do, make, take* and *get* … are called delexical because of their low lexical content and the fact that their meanings are normally derived from the words they co-occur with (e.g. *make a mistake, make dinner*)'. Altenberg and Granger (2001) said that 'high-frequency verbs, such as *make, take, give, put*, etc. are often used as delexical verbs' (p. 174). Delexical verbs are used 'with nouns as their object to indicate simply that someone performs an action, not that someone affects or creates something. These verbs have very little meaning when they are used in this way' (Collins Cobuild English Grammar 1990: 147). Sinclair (1991) argues that when composing text, L2 learners do not use the common verbs; rather they depend on 'larger, rarer, and clumsier words which make their language sound stilted and awkward' (p. 79), whilst competent English speakers have stored a great amount of multi-word units, including delexical verbs, drawing on them when using the language, so they can speak fluently and properly (Pawley and Syder 1983; Nation and Meara 2002). That seems to be one possible distinction between competent English speakers and non-competent speakers. I suggest therefore that encountering and learning phrasal verbs would be helpful to EFL young learners.

Institutionalised Expressions

The last category of lexical phrases is institutionalised expressions. I borrowed this term from Lewis (2001b), but his categories do not fit well with my RuneScape data. I use Redman's (2003) classification, from which I selected the nine categories: greeting and farewells; apologies and thanks; requests, suggestions and offerings; opinions, agreeing, disagreeing and supposing; likes and interests; WH questions; responses for WH questions; Yes/No questions; and responses for Yes/No questions. Redman's is a pedagogic classification and might not work for natural

data like mine. However, there was no research closely related to my context, as I mentioned earlier, so I judged that his classification was the most suitable one for my data. Figure 3.1 shows my final classification of lexical phrases: polywords, phrasal verbs and institutionalised expressions with sub-categories.

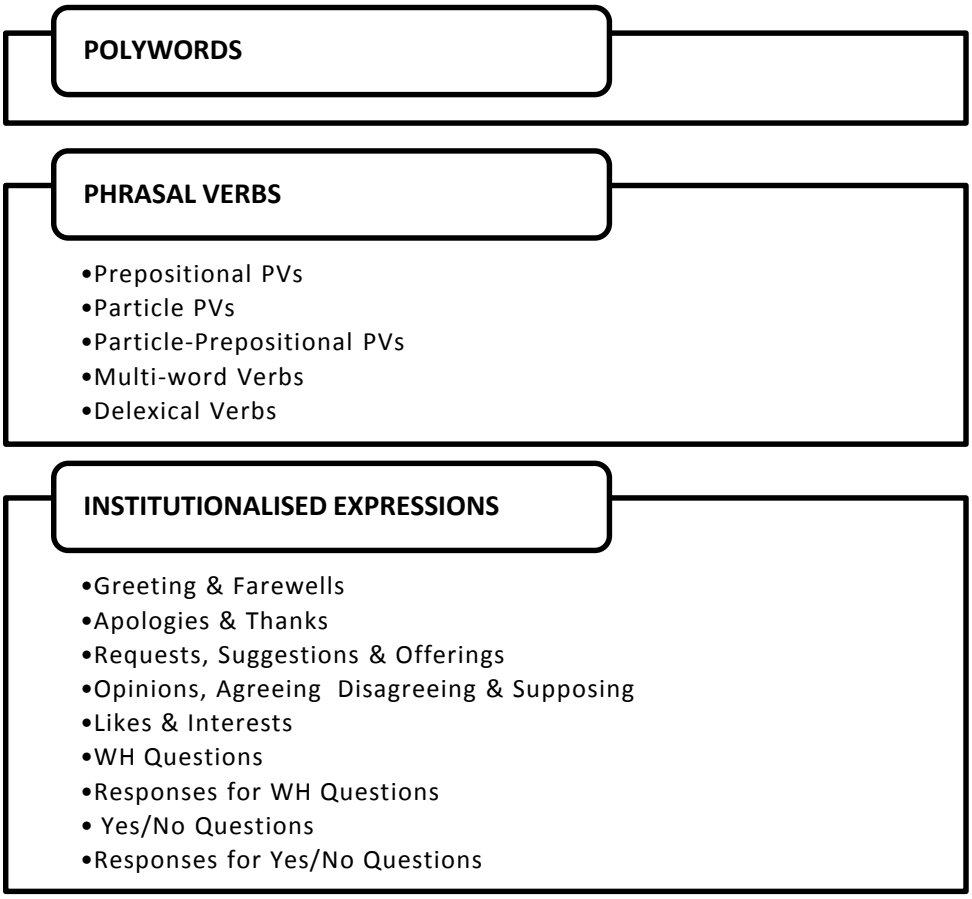

Figure 3.1 Categories of Lexical Phrases in this Study

3.3 Vocabulary Learning Strategies in EFL Contexts

3.3.1 Vocabulary Learning Strategies

It has been argued that using proper language learning strategies can help learners learn language easier and faster and improve their language proficiency with more active and more self-directed engagement (Kafipour and Naveh 2011; Nation 2001; Oxford 1990). According to the results of O'Malley et al.'s (1985) research, ESL high school students used much more vocabulary learning strategies than other

language learning strategies. Schmitt (1997; 2000) also said that a lot of learners seem to use strategies for learning vocabulary, assuming the reason to be that the distinct nature of vocabulary learning makes it easier to apply vocabulary strategies efficiently. It is claimed that being aware of vocabulary learning strategies, and knowing how to use them, are helpful for both learners and teachers (Amirian and Heshmatifar 2013; Hatch and Brown 1995). Research interest in the field of vocabulary learning strategies within the area of language strategies began as part of the shift of language acquisition from the teaching and teacher-centred perspective to learning and individual learner-centred perspective (Al-khasawneh 2012; Sadighi and Zarafshan 2006; Schmitt 1997; 2000). In learning vocabulary, appropriate vocabulary learning strategy use can be an aid for enhancing learners' vocabulary proficiency and confidence (Karami and Barekat 2012; Nation 2001). The successful use of vocabulary strategies can help learners take control of and take more responsibility for their own learning (Nation 2001; Oxford 1990; Samian and Tavakoli 2012; Scharle and Szabo 2000), by fostering 'learner autonomy, independence and self-direction' (Oxford and Nyikos 1989: 291). To be independent learners in vocabulary learning, the first step is that they should raise their own awareness of the importance of increasing their vocabulary (Schmitt 1997; Zhang and Li 2011). It is not 'possible for students to learn all the vocabulary they need in the classroom' (Sökmen 1997: 255). The next step is to know 'how to acquire vocabulary on their own' (Sökmen 1997: 255). It seems that the best way to acquire vocabulary is to be that learners are aware of various vocabulary learning strategies either by being taught or learning them for themselves (Samian and Tavakoli 2012; Schmitt and Schmitt 1993). They then decide for themselves upon which strategies, when, and how to apply them. The decisions of individual learners are affected, when choosing vocabulary strategies, by several factors such as language proficiency, age, gender, learning style, personality type, motivation and attitude (Karami and Barekat 2012).

3.3.2 Process of Learning Vocabulary and Vocabulary Learning Strategies

Learners need to be aware of not only a range of vocabulary learning strategies, but also the process of learning vocabulary and vocabulary learning strategies. Here, I suggest the models of Brown and Payne (1994) and Nation (2001).

Brown and Payne's (1994) Model

Brown and Payne (1994[8], cited in Hatch and Brown 1995: 373) suggested that vocabulary learning occurs in five steps: having sources for encountering new words; getting a clear image, either visual or auditory or both, for the forms of the new words; learning the meaning of the words; making a strong memory connection between the forms and meanings of the words; and using the words. Figure 3.2 below shows that their classification comprises an ordered sequence of five vocabulary learning processes, which includes the five groups of vocabulary learning strategies. Brown and Payne's (1994) classification seemed to propose a systematic and comprehensible framework for vocabulary learning strategies, considering the division of the five organised processes.

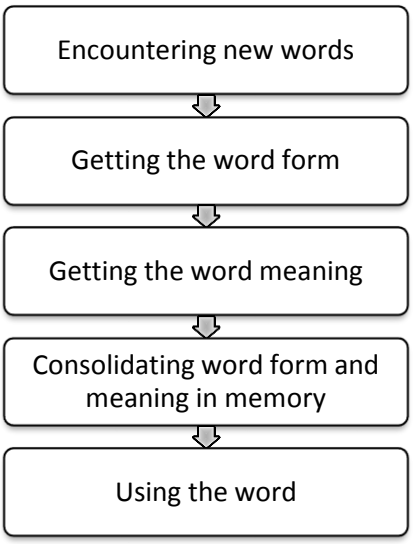

Figure 3.2 Brown and Payne's (1994) Five Steps of Vocabulary Learning Strategies

[8] The original article was a conference paper that I can't get hold of: Brown, C. and Payne, M. E. (1994) 'Five Essential steps of processes in vocabulary learning'**.** Paper presented at the ***TESOL Convention***, March 8-12, 1994, Baltimore. MD, USA.

Fan (2003) argues that all vocabulary learning strategies are more or less connected with the model of Brown and Payne. Hatch and Brown (1995: 373-391) presented examples of Brown and Payne's (1994) five steps as follows:

- **Step 1 Encountering new words** includes reading books, listening to TV, listening to radio, wordlists, going out and speaking with native speakers, textbooks and dictionaries

- **Step 2 Getting the word form** involves creating a mental picture (visual, auditory or both), e.g. associating new words with words that sound similar in the native language, associating a word with a similar sounding English word we know and seeing a word that looks like another word we already know

- **Step 3 Getting the word meaning**, which includes asking native English speakers what words mean, making pictures of word meanings in our minds, explaining what we mean and asking someone to tell us the English word

- **Step 4 Consolidating word form and meaning in memory**, which involves using flashcards, matching exercises and crossword puzzles

- **Step 5 Using the word**, which includes newly learnt items in meaningful and communicative contexts: e.g. word tests for learner's understanding of the word by viewing a video and then completing the tasks

Hatch and Brown (1995: 373-391)

Hatch and Brown (1995) describe the "steps" as a series of "sieves", stressing the significance of a large amount of word input in the first step; but 'how many words make it past this step may vary because of many learner factors', such as 'natural learner interest or motivation' (p. 373). The relationship between the five steps and vocabulary learning, Hatch and Brown (1995) suggested, is that 'if learners or teachers can do anything to move more words through any of the steps, the overall result should be more vocabulary learned' (p. 373). It seems that their perspective is an important factor to learn vocabulary. Takač (2008: 74) clarifies the five

processes of sieves in learning vocabulary, highlighting the importance of transferring a great amount of vocabulary in each step:

> The greatest number of lexical items enter the first sieve (the first step), but only a limited number of them pass through it into the next sieve, or the next step. The process is repeated through all sieves, so that the retained number of lexical item[s] is notably smaller than at the initial input. The greater the number of lexical items that the learner manages to transfer from one sieve to the other, the richer his or her vocabulary is.
>
> (Takač 2008: 74)

In a different view, Cameron (2001) refers to the five processes as "paths", rather than the word sieves or steps, to stress the 'dynamic and continuous nature of vocabulary learning' (p.84). Cameron (2001) argues that each "path" should be 'something that needs to happen over and over again, so that each time something new is learnt or remembered', emphasising the "recurrence of new words", which is particularly important for children who begin learning language (p. 84). Repetition of new words can therefore be another key factor in learning vocabulary and is a vocabulary learning strategy.

Nation's (2001) Model

Nation (2001: 63) suggested three steps for how to remember a word to stimulate learning: noticing, retrieval and generation. Nation's (2001) processes of each step are as follows:

- Noticing: giving attention to a word to be aware of it as a useful language item

- Retrieval: After a word being noticed, its meaning is comprehended in the textual input to the task. If that word is subsequently retrieved during the task then the memory of that word will be strengthened

- Generation (creative or generative use): Previously met words are subsequently met or used in ways that differ from the previous meaning with the word. The new meeting with the word forces learners to

reconceptualise their knowledge of that word.

(Nation 2001: 63-70)

The three processes can occur during the processes of using vocabulary strategies: For example, 'noticing occurs when learners look up a word in a dictionary, deliberately study a word, guess from context, or have a word explained to them' (Nation 2001: 63). It seems that there is interrelation between the three processes of remembering a vocabulary and the employment of vocabulary strategies.

Nation's (2001) model is well-known in the area of vocabulary and his model looked relevant to my context, but I prefer Brown and Payne's (1994) model because it has two more stages which make its explanation more specific. Particularly, my view is consistent with Hatch and Brown (1995) regarding Brown and Payne's (1994) steps as sieves. Although I referred to both Brown and Payne's (1994) model and Nation's (2001) model, their models could be working differently from the online game contexts. It can be assumed that Nation's (2001) steps are likely to occur in linear steps; however, it is possible that their processing involves skipping steps: for example, iteratively or cyclically. I assume that Brown and Payne's (1994) model is a linear stage system, but each step can occur in any stage: for instance, strategies in step 3, like asking native speakers what words mean, might occur in the beginning step 1 or before step 2, according to Al-Shuwairekh (2001). I support the linear order of learning vocabulary, as proposed in Brown and Payne's (1994) and Nation's (2001) models. In online game context, however, I would argue that it can be broken; children can use vocabulary learning strategies in any stages in an unpredictable way, whilst playing computer games. This is based on the different feature of online texts from the traditional texts, offline paper texts. I will discuss this in Chapter 4.

3.3.3 Classification of Vocabulary Learning Strategies

Here I review vocabulary learning strategies, which can reflect the similarity and difference between the traditional and the online ones. A number of researchers have attempted to classify diverse configurations or patterns of vocabulary learning

strategies (e.g. Decarrico 2001; Gu and Johnson 1996; Hedge 2000; Kudo 1999; Schmitt 1997; Stoffer 1995), using their own research or other researchers' work. The selection of vocabulary categories and items varies according to researchers' interests, their own experience as language teachers or learners and consideration of their teaching or learning contexts or cultures. Most studies deal with individual vocabulary learning strategies or a small number of them: whilst Gu and Johnson (1996) and Schmitt (1997, 2000) conducted large-scale research about Asian EFL students, Chinese and Japanese students, respectively. I referred to these two studies, although their target students were not children. This is because their research settings were based in China and Japan the geographical locations of which are very close to Korea. The two countries have similar EFL and cultural contexts to Korea. I therefore review the studies of Gu and Johnson's (1996) and Schmitt's (1997, 2000).

Gu and Johnson's (1996) Classification System

Gu and Johnson (1996) conducted their research on the vocabulary learning strategies used by 850 EFL Beijing university students in China who were non-English majors. The researchers used a questionnaire to study the students' beliefs about vocabulary learning and the vocabulary learning strategies self-reported by them, with three categories: beliefs, metacognitive regulation and cognitive strategies. To identify the relationship between strategies, vocabulary size and language proficiency, the researchers correlated responses to the questionnaire with the results of a vocabulary test and a language proficiency measure. The researchers built up two main categories of vocabulary learning strategies in their study: metacognitive regulation and cognitive strategies, which covered six subcategories: guessing, dictionary use, note-taking, rehearsal, encoding and activation strategies, all of which were further sub-categorised. Table 3.1 below presents Gu and John's (1996) taxonomy of vocabulary learning strategies. The total number of strategies in their study was 91; but they are too many to list here, so I have selected strategies to discuss which are relevant to my context.

Table 3.1 Taxonomy of Gu and John's (1996) Vocabulary Learning Strategies

Metacognitive Regulation	**Metacognitive Regulation** Selective attention Self-initiation
Cognitive Strategies	**Guessing strategies** Using background knowledge/wider context Using linguistic cues/immediate context **Dictionary strategies** Dictionary strategies for comprehension Extended dictionary strategies Looking-up strategies **Note-taking strategies** Meaning-oriented note-taking strategies Usage-orientated note-taking strategies **Memory strategies: Rehearsal** Using word lists Oral repetition Visual repetition **Memory strategies: Encoding** Association/elaboration Imagery Visual encoding Auditory encoding Word-structure Semantic encoding Contextual encoding **Activation strategies**

Gu and Johnson's (1996) study showed that there were significant positive correlations between the two metacognitive strategies (self-initiation and selective attention) and general proficiency. The most used strategies were guessing from context, using a dictionary and paying attention to a word formation. The strategies of contextual guessing, the skills of using dictionaries, note-taking and activation of newly learned words correlated positively with the test scores. However, visual repetition of new words was the strongest negative predictor of both vocabulary size and general proficiency. Gu and Johnson (1996) argued that as opposed to popular perceptions about Asian students, Chinese university students reported that they used more meaning-oriented strategies than memorisation or rote strategies in vocabulary learning. An interesting point is that Gu and Johnson's (1996) findings were different from those of Korean EFL students who dwell on

memorising word meanings, but reveal weak vocabulary proficiency (Eun 2012; Lee and Kim 2005). Gu and Johnson (1996) suggested that vocabulary learning should be identified as a skill, not as items, considering the purpose of learning vocabulary as follows:

> In addition to remembering the form-meaning association, learning the skill of recognizing a word automatically in natural contexts, the skill of guessing what a word means, and most importantly, the skill of using a word correctly and appropriately should be the purpose of vocabulary learning.
>
> (Gu and Johnson 1996:659-660)

Schmitt's (1997, 2000) Classification System

Schmitt (1997) modified and complemented Oxford's (1990) classification of language learning strategies. Schmitt (1997) implemented his survey within four different age groups, composed of Japanese junior, senior high school students, university students and adult learners with 600 Japanese EFL students in all. His survey aimed to examine the relationships between which strategies students used and which strategies they believed most helpful. He proposed two main categories of vocabulary learning strategies: discovery strategies to discover a new word's meaning and consolidation strategies to consolidate a word when it has been encountered. Schmitt's (1997) taxonomy of vocabulary learning strategies, with 58 strategies in all, is presented in Table 3.2 below. Schmitt (1997) attempted to take account of all major strategies from the various sources in compiling a comprehensive list of vocabulary strategies. However, he admitted the difficulty of devising the list and the allocation of particular strategies to any of the categories due to their variations because 'the process of deciding which variations to incorporate depended on the author's subjective judgement' (Schmitt 1997: 204).

Table 3.2 Taxonomy of Schmitt's (1997) Vocabulary Learning Strategies

Strategy Group
Strategies for discovering the meaning of a new word
DET Analyze part of speech
DET Analyze affixes and roots
DET Check for L1 cognate

DET Analyze any available pictures or gestures
DET Guess from textual context
DET Bilingual dictionary
DET Monolingual dictionaries
DET Word lists
DET Flash cards
SOC Ask teacher for L1 translation
SOC Ask teacher for paraphrase or synonym of new word
SOC Ask teacher for a sentence including the new word
SOC Ask classmates for meaning
SOC Discover new meaning through group work activity

Strategies for consolidating a word once it has been encountered

SOC Study and practice meaning in a group
SOC Teacher checks students' flash cards word lists for accuracy
SOC Interact with native-speakers
MEM Study word with a pictorial representation of its meaning
MEM Image word's meaning
MEM Connect word to a personal experience
MEM Associate the word with its coordinates
MEM Connect the word to its synonyms and antonyms
MEM Use semantic maps
MEM Use 'scales' for gradable adjectives
MEM Peg Method
MEM Loci Method
MEM Group words together to study them
MEM Group words together spatially on a page
MEM Use new word in sentences
MEM Group words together within a storyline
MEM Study the spelling of a word
MEM Study the sound of a word
MEM Say new word aloud when studying
MEM Image word form
MEM Underline initial letter of the word
MEM Configuration
MEM Use Key word Method
MEM Affixes and roots
MEM Part of speech
MEM Paraphrase the word's meaning
MEM Use cognates in study
MEM Learn the words of idiom together
MEM Use physical action when learning a word
MEM Use semantic feature grids
COG Verbal repetition
COG Written repetition
COG Word lists
COG Flash cards
COG Take notes in class
COG Use the vocabulary section in your textbook
COG Listen to tape of word lists
COG Put English labels on physical objects
COG Keep a vocabulary note book
MET Use English-language media (songs, movies, newscast, etc.)

MET Testing oneself with word tests
MET Use spaced word practice
MET Skip or pass new word
MET Continue to study over time

Schmitt's (1997) study suggested that the learners mostly consulted a bilingual dictionary, used verbal repetition and written repetition, studied the spelling, and guessed from context. The learners also considered dictionary use and repetition strategies more useful than other strategies, whereas they perceived imagery and semantic grouping strategies to be the least useful strategies. These findings correlate to the study of Korean students' vocabulary strategy use, although age or proficiency could affect the results. For instance, Park's (2001) study showed that the most popular strategy of Korean students was use of bilingual dictionaries and Jang's (2005) study suggested that the most frequently used strategy by Korean elementary school students was repetition.

3.4 Research on Vocabulary Learning Strategies in the Korean Context

3.4.1 Overview of Previous Research

In this section, I review previous studies on vocabulary learning strategies in the Korean context. It aims to identify: how past researchers collected their data to fulfil the purpose of their studies; whether the results of their research studies contribute to a better understanding of how EFL young learners deal with the unknown words when encountering them; and what kinds of vocabulary strategies EFL learners at the beginner level employed to cope with unknown words. In South Korea, a number of studies into EFL vocabulary learning strategies have been carried out at the time of writing. There are 47 readily accessible studies of master's dissertations, doctoral theses and journal articles: 12 focused on college or university students and adults; 9 on high school students; 18 on middle school students; and 8 on elementary school students. From these, I will deal with the studies of elementary school students, which are relevant to my context. The

studies on vocabulary learning strategies in the elementary school level are discussed, looking at:

- Which methods of data collection are employed
- Which variables have been investigated
- How many studies of young learners' strategy use have been done in South Korea and how they are relevant to this study
- What kinds of strategies are examined
- Whether each research would be relevant to this study
- How many studies of the use of games or computer or computer games have been done in South Korea and how they are relevant to this study

The studies are summarised in Table 3.3 below with general information (researcher, purpose of study, setting, research methods, investigated variables and key findings). I describe the research studies in chronological order to observe how vocabulary learning strategy research has been developed. The variables investigated by Korean researchers in vocabulary learning strategy use are: proficiency or vocabulary ability level (Cho 2011; Jang 2005; Kim and Lim 2006; Lim 2007); vocabulary learning strategy training or instruction (Bae 2010; Kim 2007; Kim 2008); age or grade (Lim 2007; Park 2001); and gender (Jang 2005; Kim and Lim 2006; Lim 2007; Park 2001). I found useful data from some Korean researchers, suggesting a number of vocabulary learning strategies used by elementary school students, which were important in providing the foundation to compare their traditional vocabulary learning strategies with my online ones. Their strategies are as follows:

- Using bilingual and monolingual dictionaries (Bae 2010; Lim 2007; Park 2001)
- Guessing unknown word meaning from the context (Bae 2010; Jang 2005; Kim 2007; Kim and Lim 2006; Lim 2007; Park 2001)
- Studying the spelling (Lim 2007; Park 2001)
- Studying the sound of a word (Park 2001)
- Saying a new word aloud (Kim 2007; Park 2001)
- Verbal repetition (Bae 2010; Jang 2005; Lim 2007; Park 2001)
- Inferring unknown word meaning from the roots and affixes (Bae 2010; Kim 2007)
- Questioning a word meaning to other(s) (Bae 2010; Kim 2007; Lim 2007)

Table 3.3 Overview of Research about Vocabulary Learning Strategies Conducted in South Korea

Researcher(s)	Type of Publication	Purpose of Study	Setting	Research Methods	Investigated Variables	Key Findings
Park, J. E. (2001) 박준언	Journal Article	Investigating Korean EFL learners vocabulary learning according to four different age groups	150 Elementary school students (6^{th} grade), 150 Middle school students (3^{rd} year), 150 High school students (3^{rd} year), 150 University students (junior and senior)	Questionnaire	Grade Gender	• Found the most popular strategies as the use of bilingual dictionaries and guessing unknown word meaning from the context • Identified the most favoured strategies to consolidate the retention of a newly acquired word: studying the spelling and sound of a word, saying a new word aloud, verbal and written repetition, studying words continuously and imaging a word's meaning
Jang, J. K. (2005) 장정곤 [부산교대 석사]	Master's Dissertation	Finding out elementary school student's vocabulary learning strategies according to proficiency and gender	144 Elementary school students (6^{th} grade)	Vocabulary proficiency test, Questionnaire, Interviews (12 students)	Proficiency (upper, middle and lower-levels), Gender	• Found the most favoured strategy as guessing the meaning of an unknown L2 word with their background knowledge in discovery strategies • Found the higher level used more varied strategies than the lower; the lower intended using no strategies because of the anxiety of learning Identified little difference between the two gender groups
Kim, N. S. & Lim, S. J. (2006) 김남순 & 임수진	Journal Article	Analysing vocabulary inferencing strategies to infer the meaning of vocabulary from the context	116 Elementary school students (6^{th} grade)	Questionnaire, Interview	Inferencing strategies, Proficiency, Gender	• Found those who scored in the top 30% on a vocabulary test more frequently used reasoning strategies than the bottom 30%. • Found little difference in strategy use by gender • Found that the top 30% of scorers had a higher perception of and interest in vocabulary learning

Kim, K. J. (2007) 김금자 [진주교대 석사]	Master's Dissertation	Examining the effects of teaching vocabulary learning strategies on English vocabulary ability and the use of the strategies by 6th grade elementary school students	62 Elementary school students (6th grade)	Pre and post-vocabulary tests, Pre and post-questionnaire, Experiment (1 experimental & 1 control group)	Score for English vocabulary ability, Level, Instruction of English words integrated in texts devised by the researcher for teaching various vocabulary learning strategies	• Found the experimental group obtained a higher degree of increase in mean scores from the pre-test to the post-test than the control group but the difference between the two groups was not statistically significant • Found from the division of the groups into three levels (high, intermediate, and low), the high and intermediate levels showed higher increases in mean scores for English vocabulary ability in the experimental group than the control group • Found the experimental group showed a higher increase in frequency of use of vocabulary learning strategies than the control group at the intermediate and low levels
Lim, S. J. (2007) 임수진 [한남대 박사]	Doctoral Thesis	Analysing relationships between children's vocabulary ability and vocabulary learning strategies in the English classes of elementary schools	360 Elementary school English learners (3rd to 6th grade)	Multiple choice vocabulary test, Questionnaire, Interview	Grade, Gender, Affective states, Vocabulary ability level	• Found positive linear correlation between the frequency of the use of vocabulary learning strategies and vocabulary ability • Found 6th grade students used more vocabulary strategies than other grade students • Identified the use of vocabulary learning strategies proved useful to improve students' vocabulary ability
Kim, M. K. (2008) 김미경 [경인교대 석사]	Master's Dissertation	Investigating the effect of language learning strategies instruction for vocabulary comprehension of elementary school students	74 Elementary school students (4th grade)	Pre and post-vocabulary tests, Experiment (1 experimental & 1 control groups)	Score, strategy training, Vocabulary comprehension	• Found after 16 weeks of language learning strategy training, the experiment group achieved higher scores on the vocabulary comprehension test and the score was statistically significantly higher than both the control groups' and experiment groups' scores obtained before training

Bae, M. Y. (2010) 배미영 [대구교대 석사]	Master's Dissertation	Investigating the vocabulary learning strategies used by 5th grade elementary school students	121 Elementary school students (5th grade)	Analysis of teacher's guidebook (5th grade), Pre and post-vocabulary tests, Questionnaire, Experiment (3 experimental & 1 control groups)	Score, Teaching vocabulary learning strategies with integrative methods for English teacher's guidebook	• Found subjects used social discovery strategies most often and repetition learning strategies was the most frequently used cognitive strategies • Found the experimental groups used more strategies than the control group: e.g. determination strategies, memory strategies, cognitive strategies and social consolidation strategies • Found low proficiency students used more frequently determination, memory, cognitive and meta cognitive strategies after teaching vocabulary learning strategies whereas high proficiency students used more frequently determination and cognitive strategies • Identified vocabulary learning strategy instruction is useful to low proficiency students more than high proficiency students
Cho, E. J. (2011) 조은주 [제주대 석사]	Master's Dissertation	Investigating the relationship between lexical competence, proficiency and vocabulary learning strategies	258 Elementary School Students (5th grade)	Survey, Vocabulary test, Proficiency test	Lexical competence, Proficiency	• Found positive correlation between using vocabulary learning strategies and lexical competence: higher lexical competence learner uses more vocabulary learning strategies. • Found a strong positive correlation between lexical competence and proficiency

3.4.2 Discussion of Previous Research

Park (2001) investigated the relationship between L2 vocabulary learning strategies and Korean EFL learners, considering gender difference and noticeable developmental trends in age groups. His research questions are: What L2 vocabulary learning strategies are favoured by Korean EFL learners?; what L2 vocabulary learning strategies do Korean EFL learners find helpful?; is there any gender difference in the use and perception of L2 vocabulary learning strategies in Korean EFL learners?; and are there any noticeable developmental trends across the different age groups of Korean EFL learners? Park (2001) studied four different age groups (150 participants of each group) to find which vocabulary learning strategies Korean EFL students used most: elementary school students (sixth grade); middle school students; high school students; and university students. Although his research used only one method, survey, his study is significant in presenting the comparison and difference of vocabulary learning strategies between four different age groups. After his research, most research has dealt with only one or two age groups. About gender difference, he found that there was not major difference between male and female groups in their vocabulary learning activities. He said that some general developmental trends showed that 'L2 learners increasingly depend on cognitively more complex strategies as they grow older and become cognitively more mature' (Park 2001: 24), suggesting that 'teachers need to show flexible approaches in teaching L2 vocabulary to fit the cognitive level of their learners, rather than stick to using the same strategy to all age levels of learners' (Park 2001: 24-25). Most actively used strategies by all groups were using bilingual dictionaries and guessing meaning from the context. Elementary school students used vocabulary learning strategies with bilingual and monolingual dictionaries, guessing unknown word meaning from the context, studying the spelling, studying the sound of a word, saying a new word aloud and verbal repetition. They used monolingual dictionaries more frequently than middle school and high school students. A high percentage (61.3%) of elementary school students used textual contexts to infer a word's meaning. Those two strategies require a 'high degree of English proficiency' and a 'considerable amount of L2 knowledge' (Park 2001: 17). Vocabulary researchers had generally assumed that elementary school students in

the early stage of L2 learning might have not had the abilities of the two strategies (Park 2001). However, his findings suggested that Korean elementary school students had the potential to use the high-level vocabulary strategies. Although the contexts of his studies were different from mine, his research was informative, showing that elementary school students were able to use the same vocabulary learning strategies as the older students did.

Jang (2005) studied the relationship between vocabulary learning strategies of Korean elementary school students and their lexical competence, using surveys and interviews. He conducted the surveys with 6th grade 144 male and female students with 43 items, interviewing 12 students in upper, middle and lower levels, according to their vocabulary proficiency. His research questions are: What is the status of the vocabulary learning strategy use of 6th grade students?; what is the status of the vocabulary learning strategy use of 6th grade students according to proficiency levels and gender?; and what is vocabulary learning strategy problems in use? He found that elementary school students prefer strategies of guessing the meaning of an unknown L2 word with their background knowledge and repeating verbally. Those strategies were coincident with mine. It showed that Korean elementary school students were fond of using the strategies in both the classroom and the online contexts. Concerning proficiency levels, he found that 'the higher level use[d] more varied strategies than the lower' and 'lower level students intend[ed] using nothing of strategies', because they were anxious about learning vocabulary (Jang 2005: 105). Although his interviewees, 12 students were too small to make a general conclusion, I can suggest that a vocabulary learning strategy training for lower level students would be helpful to engage them in using more strategies. Comparison between 70 male and 75 female students was made to see if there was any gender difference of their vocabulary learning strategy use; there was little difference. This result was coincident with Park's (2001). The problem he found was that the most of students tended to forget the learned vocabulary quickly. He suggested that many instruction models needed to introduce for vocabulary learning strategies. Although I did not study a strategy training or

instruction in this thesis, I feel the need of further study to retain vocabulary memorisation of Korean elementary school students.

Kim and Lim's (2006) study narrowly focused on vocabulary inferencing strategies to identify how 116 6th grade elementary school students inferred the meaning of vocabulary from the contexts, according to proficiency and gender. Their research questions were: Do the 6th graders use the strategies to infer the unknown word meanings?; Is there any difference in using meaning inferencing strategies between high and low vocabulary proficiency groups?; how are the features of the types and use of meaning inferencing strategies changed depending on vocabulary proficiency?; is there any difference in using meaning inferencing strategies by gender?; and is there any significant difference in vocabulary proficiency depending on the extent of perception and interest on vocabulary learning? Their research questions were in Korean, so I translated them into English. They collected data from 116 6th grade students, using a questionnaire and interview. Although they found that there was little difference in using the strategies by the male and female students, they found that there was signigicant difference in proficiency. The top 30% on a vocabulary test used reasoning strategies more frequently than the bottom 30%. The top 30% used contextual reasoning strategies to identify unknown word meanings and showed a higher perception and interest in vocabulary learning. This showed that there was a significant positive impact of vocabulary learning strategies on vocabulary learning of EFL students, especially meaning inferencing strategies. Their study informed that we need to pay attention to lower proficient students to help them use more strategies and have more interest.

Kim (2007) investigated a training of vocabulary learning strategies to improve 6th grade students' vocabulary knowledge. She set up research questions: What kinds of strategies, if any, are sixth graders using in learning English words?; will it be effective to teach vocabulary learning strategies for improving English vocabulary ability of sixth graders?; and will teaching vocabulary learning strategies affect the degree of strategy use of sixth graders? She conducted an experiment with 62 6th

graders. She carried out the training to an experimental group, making the intervention twice a week for 11 weeks: 'the experimental group was taught English words that were integrated in texts specially devised by this researcher for teaching various vocabulary learning strategies, while the control group was taught the same English words according to a rather traditional way of vocabulary instruction' (Kim 2007: 61). The experimental group was divided into three levels: high, intermediate and low levels. In each session, she presented target vocabulary and introduced vocabulary learning strategies based on the results of the survey. She then asked the experimental group to apply those strategies to the activity sheets on their own and then in pairs. The students were asked to record their thoughts or feelings in a journal after every session. After administering the experiment, she evaluated the results using a post-test and post-questionnaire. Although her methodology seemed to be strong, examining other graders would make her study stronger. She found that the students used the strategies of guessing unknown word meaning from the context, saying a new word aloud, inferring unknown word meaning from the roots and affixes and questioning a word meaning to other(s). Her study was informative in providing a number of vocabulary learning strategies which were consistent with mine, although it was different from my context. It showed that the same strategies can be used in offline and online vocabulary learning contexts. She found that the experimental group achieved a higher score in the post-test and used more vocabulary strategies than the control group. She suggested that 'training vocabulary learning strategies could be an effective way of improving English vocabulary ability and increasing the use of vocabulary learning strategies of sixth graders in elementary schools' (Kim 2007: 62). The strong point of her study was that she trained 6th grade elementary school students for the use of vocabulary learning strategies and that she found that the strategy training was useful.

Lim's (2007) study aimed to analyse relationship between vocabulary ability and vocabulary learning strategies in the elementary school classroom and to offer the more effective vocabulary learning strategies. She formulated the three research hypotheses: Elementary school students will use vocabulary learning strategies for

effective vocabulary learning; vocabulary learning strategies will be used according to learner factors; and there will be relationship between the use of vocabulary learning strategies and vocabulary ability. Her research hypotheses were in Korean, so I translated them into English. She conducted her research with 360 3rd to 6th grade elementary school students. 'A multiple choice vocabulary test was developed to measure of students' vocabulary knowledge. Vocabulary learning strategies were investigated through an anonymous questionnaire, and personal interviews were also conducted to gather more data' (Lim 2007: 150). She found that 'elementary school students used individual multiple strategies to facilitate vocabulary learning' (Lim 2007: 150). The strategies in her study involved using bilingual and monolingual dictionaries, guessing unknown word meaning from the context, studying the spelling, repeating verbally and questioning a word meaning to other(s). These strategies were very similar to ones I found in my study. It informed that similar vocabulary learning strategies were used in both paper-based and online-based learning environments. The important point is that only Lim (2007) compared vocabulary learning strategies with the four different grades (3rd to 6th) in elementary school, although she only surveyed which strategies her subjects had used and compared the results with each grade. She found that 6th grade students used more vocabulary learning strategies than the others. This suggested that we need to pay more attention to the lower grade students to encourage them to use more strategies. This also implied that 3rd and 4th grade students needed to be involved in my study to draw a general conclusion. Lim (2007) also considered gender as a learner factor, showing that female students used more strategies than male students. This result was different from Park's (2001), Jang's (2005) and Kim and Lim's (2006), in which there was little difference between genders. Their studies showed that it is hard to conclude that gender affects the use of vocabulary learning strategies. Lim (2007) found a positive correlation between the frequency of the use of vocabulary learning strategies and vocabulary ability. This showed that the higher-level students used more vocabulary learning strategies than the lower, suggesting that we need to encourage the lower level students to use vocabulary learning strategies, in order to improve their vocabulary knowledge.

Kim (2008) investigate the effect of language learning strategy instruction concerning vocabulary comprehension of Korean elementary school students. Her research questions were: How does language learning strategy instruction affect improvement of the learner's vocabulary ability?; what changes occur in the strategy use of the learner and what kinds of strategies are relevant to vocabulary ability?; and how does language learning strategy instruction affect the English interest? Her research questions were in Korean, so I translated them into English. She conducted an experiment with 74 4th grade elementary school students. She carried out language learning strategy training once a week for 16 weeks with an experiment group: she inserted the practice of three or four strategies in the same lesson plan as the control group. After the training, she compared the results of the three different levels: high, intermediate and low levels. She used questionnaires and pre- and post-vocabulary tests. She conducted the questionnaires and teacher observations to examine the interest in English learning. She found that the experimental group gained more interest in learning English and that the frequency of using strategies in the experimental group was increased. She also found that the experimental group achieved higher scores on the vocabulary comprehension test. Those results showed that language learning strategy instruction stimulated students to engage in learning English, enabled them to use more vocabulary learning strategies and improve their vocabulary abilities. Although her study dealt with only 4th grade students, it suggested the importance of strategy training for other grade elementary school students.

Bae (2010) investigated the effects of vocabulary learning strategy instruction on 121 5th grade students in Korean elementary school. She also examined that the teaching methods of vocabulary learning strategies were suitable for the curriculum. She formulated the five research questions: What vocabulary learning strategies are involved in English teacher’s guidebook?; what is the status of the vocabulary learning strategy use of 5th grade students?; does vocabulary learning strategy instruction have a positive impact on the improvement of the learner’s vocabulary ability?; does vocabulary learning strategy instruction have a positive impact on the learner’s strategy use?; and are the effects of vocabulary learning

strategy instruction on the learner's strategy use different depending on vocabulary level of learners? Her research questions were in Korean, so I translated them into English. She conducted an experiment with the instruction of vocabulary learning strategies once a week for 17 weeks, pre- and post-vocabulary tests and questionnaires. Bae's (2010) research seemed to hold the strong methodology. Although it was based on Lim's (2007) questionnaire, Lim (2007) conducted only the questionnaire without the experiment. In addition, she analysed the teacher's guidebook. The noticeable point was that she dealt with three experimental groups and one control group. It was different from other studies, usually dealing with one experimental group and one control group. She carried out an experiment to the three experimental classes with English teacher's guide book and vocabulary learning strategies; the control class with only English teacher's guide book. The experimental groups divided into two groups as high and low level groups. She found that her subjects used strategies of using bilingual and monolingual dictionaries, guessing unknown word meaning from the context, verbal repetition, questioning a word meaning to other(s) most and inferring unknown word meaning from the roots and affixes. It informed that those strategies overlapped with mine in the online context. She found that the experimental groups used more strategies and the high level students used more strategies. Although her study dealt with only 5th grade students, it provided the positive results about training, suggesting that researchers needed to develop the training of vocabulary learning strategies. Her study provided the foundation for further study to find effective ways of improving vocabulary skills, in particular for the low level students.

Cho (2011) investigated the relationship between lexical competence, proficiency and vocabulary learning strategies with 258 5th grade elementary school students. Her research questions were that: What kinds of vocabulary learning strategies do the 5th graders use?; what relationship exists between vocabulary proficiency and the use of vocabulary learning strategies?; what relationship exists between English academic achievement and vocabulary proficiency?; what relationship exists between vocabulary learning strategies, vocabulary proficiency and English academic achievement?; and what learning method can be applied effectively to

the students? Her research questions were in Korean, so I translated them into English. She conducted a survey on vocabulary learning strategies, a vocabulary test and a proficiency test. The large scale of 258 participants in one grade was the strength of her research, in comparison with the other studies. She found that there is positive relationship between using vocabulary learning strategies and lexical competence: the learners with higher lexical competence used more vocabulary learning strategies and showed more proficiency. Although she conducted with only 5th graders, her study showed that lexical competence was significant in using the strategies. This suggests that we need to consider a training to improve both lexical competence and vocabulary learning strategies especially for low level students.

3.5 Summary

This chapter has reviewed vocabulary learning in EFL contexts, focusing on lexical phrases. It has discussed vocabulary learning strategies in EFL contexts which were the foundation of my research and the evidence to be compared with my findings. It has then discussed the previous studies about vocabulary learning strategies for Korean young learners. The next chapter reviews the relevant literature on reading, reading strategies in EFL contexts and online reading as the second issue of English language learning.

Chapter 4 ISSUES IN ENGLISH LANGUAGE LEARNING (2): EFL READING

4.1 Introduction

Computer games consist of multimodal environments, but I narrowed the focus of this thesis to foreign language reading rather than literacy more broadly. The decision to focus in this narrower way is based on three reasons: firstly, there is a substantial body of work within ELT that considers reading as a skill in its own right. Secondly, my study is foreign language learning with regard to reading, rather than ethnography to investigate social and cultural contexts. I intended to consider those contexts in Korea, but they are not the main focus of my study because my participants are foreign language learners so their participation in the social structures of the target language is limited. Thirdly, I acknowledge that other mode factors can contribute to making meaning from screen-based games, but within a PhD it is always necessary to limit the field of study in some way. As a result, my study could involve not all those elements but only "text" that players need to read to understand and identify 'textual information' ('paper-based manual/strategies or screen-based text') (Hsu and Wang: 403). I focus in this study on text-based reading in English learning through reading online texts in computer game playing, not overall literacy.

Reading is considered key to increasing vocabulary knowledge (Krashen, 1989; Nagy and Anderson, 1984; Nation and Coady 1988**;** Schmitt 2000) and vocabulary knowledge is important for reading (Nation and Coady 1988). All children probably find it difficult to read a foreign language. Adults tend to be motivated to learn English with clear and practical reasons, such as passing university entrance exams or getting promotion; but children tend to lack this kind of motivation to read English texts. Reading both printed paper texts and online texts are important because the time children spend reading online is increasing. Teachers in school deal with written texts, but teaching online texts is difficult (Leu et al. 2007).

Reading traditional texts and online texts are different so today's children need to learn new skills and new strategies for online reading, representing new literacies and multimodality (Coiro 2007; Leu et al. 2005).

To the best of my knowledge, no research has been conducted into the English reading strategies and strategy use of EFL young learners when they play computer games in Korean and other EFL contexts. I carried out extensive reading of literature and research on offline and online reading strategies. However, I was unable to find the right framework of reading strategies to fit into my study. This chapter therefore aims to review previous research about both online reading and paper-based text reading to discuss which reading strategies overlap with my research and which ones are newly found (see Chapter 9). This chapter first reviews literature on reading in EFL, addressing issues on the challenges and solutions for children's reading, in which gaming literacy and online reading with features of new literacy and multimodality are examined. It then reviews the research conducted in Korea about Korean EFL children's offline reading strategies and online reading strategies in the diverse contexts.

4.2 Reading in English as a Foreign Language

4.2.1 Challenges and Solutions for Korean EFL Children's Reading

Challenges for reading in EFL are present for every EFL learner including Korean children and adults. Unlike adults, however, children would find it hard to read in English in terms of their perceptions of reading purposes and strategies, considering why and how to read in English. I therefore address children's difficulties in reading English texts and attempt to suggest solutions. First, lack of clear "instrumental" motivation, which reflects the 'practical value and advantages of learning a new language' (Lambert 1974: 98), is the first obstacle for Korean children to reading English texts. Motivation is an important factor leading to success in foreign language learning (Ushioda 2013). However, Kim's (2011) research suggested that Korean elementary school students lack instrumental

motivation to learn English and do not see how important English is for their future success. Kim (2011) also suggested that Korean children lack "integrative" motivation as well, which is a ‘sincere and personal interest in the people and culture represented by the other group’ (Lambert 1974: 98). For instance, their satisfaction in English learning experiences and expectation of ultimate success in English were found to decrease as they advanced through the grades (Kim 2011; Kim and Seo 2012). Kim and Seo (2012) therefore suggested solutions for encouraging demotivated Korean students. One solution is that English teachers should pay attention to individual students and teach English at different levels. Another solution is that teachers need to enhance learners’ ‘self-motivating strategies’ to ‘take more control over their own learning process’ (Kim and Seo (2012: 168). However, I argue that we should find the solutions to Korean children’s motivation problem, not from teachers and classrooms, but from learners, providing motivational environments in which children can be interested and enjoy themselves. Although this study’s context is EFL, I agree with Krashen’s (2004) argument that ‘when second language acquirers read for pleasure, they can continue to improve in their second language without classes, without teachers, without study …’ (p. 147). As a way of increasing English learners’ motivation, Stockwell (2013) suggests the use of the progressing range of technology in and out of the classroom.

The second challenge for children’s reading results from the complicated features of the reading process when ‘receiving and interpreting information encoded in language form via the medium of print’ (Urquhart and Weir 1998: 22). Koda (2005) said that ‘comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known’ (p. 4). Grabe and Stoller (2002) write that reading is to draw ‘information from a text and to form an interpretation of that information’ (p. 4). Carrell and Grabe (2002) describe the reading process as follows:

> A reader engages in processing at the phonological, morphological, syntactic, semantic and discourse levels, as well as engages in goal

> setting, text-summary building, interpretive elaborating from knowledge resources, monitoring and assessment of goal achievement, making various adjustments to enhance comprehension, and making repairs to comprehension processing as needed.
>
> (Carrell and Grabe 2002: 234)

In the reading process, reading builds through the interaction between the text and the reader, in which 'the two physical entities' are essential 'for the reading process to begin' (Aebersold and Field 1997: 15). Aebersold and Field (1997) suggest that the 'interaction between purpose and manner of reading' and 'interaction through reading strategies' are also important (p. 15). I would argue that the second problem is that children, unlike adults, lack perception of reading purposes and strategies; why and 'how people read a text' (Aebersold and Field 1997: 15) and what kinds of reading they should apply for successful reading. It seems that most adults tend to have clear purposes why they read English and how to read a text through the training of faster and more efficient reading to get a high score in exams. The strategies of what reading types would apply for reading purposes are important because various reading purposes can lead readers to use diverse 'cognitive processes and knowledge resources' (Carrell and Grabe 2002: 233), finding out 'how the underlying cognitive processes and resources systematically relate to the ability to achieve these purposes' (ibid: 234). For example, Grabe (2009) suggested that learners read differently according to the six purposes: reading to search for information (scanning and skimming); for quick understanding (skimming); to learn; to integrate information; to evaluate, critique and use information; and for general comprehension (reading for interest or to entertain) (p.7-8). Grabe's (2009) reading model seems to be less relevant to the computer game context, because during playing games, children do not usually think they are reading to learn or critique information. Aebersold and Field (1997) offered three reading purposes: to understand (reading for full comprehension), or simply to get the general idea (skimming), or to find the part that contains the information they need (scanning) (p.15). The model of Aebersold and Field (1997), however, seems to be too simple to cover the reading process on online. I suggest therefore that the

model of Urquhart and Weir (1998: 101-103) would be more useful, consisting of the five reading types as follows:

- Search reading: locating information on predetermined topics
- Skimming: reading for gist
- Scanning: reading selectively to achieve very specific reading goals
- Careful reading: reading to learn with the readings of textbooks
- Browsing: reading where goals are not well defined with skipping randomly

(Urquhart and Weir 1998: 101-103)

This is because Urquhart and Weir (1998) added search reading and browsing from the Aebersold and Field's (1997) model, which would occur a lot in online reading. I argue therefore that Urquhart and Weir's (1998) model would be the most relevant to my context, although they suggested the model for traditional paper reading. I argue, therefore, that we need to find out why children read English texts and what kinds of reading they can apply in reading online; children's opportunities for practising and applying those kinds of reading strategies should be increased, by being exposed to diverse and extensive texts and reading a lot. I agree with Krashen's (2004) perception that learners should 'learn to read by reading' (p. 147), so another way of reading online texts can help extend and broaden children's reading scope beyond reading paper books. Thirdly, as Dreyer and Nel (2003) suggest, systematic instruction or training could be effective to provide students with reading strategies to 'promote comprehension monitoring and foster comprehension' (Dreyer and Nel 2003: 350). More 'effective instrumental means for teaching reading comprehension and reading strategy use' (Dreyer and Nel 2003: 350) need to be developed to meet the reading needs of 21st century children. Today's children spend a lot of time using computers, so I suggest that we should consider reading online texts.

4.2.2 Multimodality and New Literacy

Children need to learn new skills or strategies for online reading because reading traditional texts is different from reading online texts, which represent a "new literacy" and "multimodality" (Coiro 2007; Leu et al. 2005). There has been research interest in what it means to be literate in a word of multimodal texts (Kress 2000a; 2000b; 2010 and van Leeuwen 2011). According to Kress (2010), a mode means 'a socially shaped and culturally given semiotic resource for making meaning' (p. 79) and multimodality consists of 'image, writing, layout, music, gesture, speech, moving image, soundtrack and 3D objects' (ibid: 79). Kress (2000b) argues that 'it is now no longer possible to understand language and its uses without understanding the effect of all modes of communication that are copresent in any text' (p. 337). Unlike traditional paper texts with usually two modes of image and writing, online reading composes of multiple modes to represent meaning. For example, online texts in computer games consist of multimodal components: 'language, image, sound, music, layout, typography and colour' (van Leeuwen 2011: 668). If we play computer games, for instance, we need to read multimodally to inform how to solve the tasks, and successful reading would result from being aware of the multi-modes and understanding what meaning the modes represent.

As digital technology advances, the dimension of literacy expanded from reading and writing of print-based texts (Kress 2003; Lankshear and Knobel 2006; Sanford and Madill 2007) to the concepts of new literacies, or digital literacy, or technological literacies (Lankshear and Knobel 1997), or electronic literacies (Warschauer 1999). In considering literacy, Warriner (2011) writes that literacy scholars study a range of factors, which can influence literacy as 'a social practice', such as 'purpose, situation, actors involved, and contexts (social, cultural and ideological)' (p. 530). Kress (1997) studied children's literacy and stressed 'meaning-making as work, as action' (p. 8) in social structures and cultural systems. It seems that social, cultural and economic contexts are relevant to literacy (Park and Kim 2011; Warschauer 1999). Kress (2003) suggests that 'it is no longer possible to think about literacy in isolation from a vast array of social, technological

and economic factors' (p. 1). New literacy refers to a 'much broader set of texts including visual, multimodal, and digital texts that appear in many forms all around us all the time' (Sanford and Madill 2007: 286).

In considering new literacy in school contexts, research has been conducted into how digital literacy can be connected with school subjects (Grant 2010; Hague and Williamson 2009; Payton and Hague 2010). Grant (2010) studied the connections and discontinuities between children's digital literacy practices at home and in school, arguing that it seems to be impossible to bridge the gap between children's digital literacy practices at home and in school. Grant's (2010) study began to deal with children's digital literacy practice out of school and attempted to provide chances to support children's digital literacies at both home and school. Gee (2004) argues that children learn to read successfully not from the instructed processes at school, but from the cultural processes at home, in which children learn to read in their everyday lives. However, although Gee's argument is based on L1 (First Language) context, Gee's (2004) strong view of entirely learning from home excludes the importance of school learning. This is because, although technology has been changing the reading environments from print-text-reading to digital or online-text-reading, it seems that 'technologically literate students are developing skill in reading visual, multimodal texts as well as traditional print-based texts of formal schooling' (Sanford and Madill 2007: 286). The role of traditional school is important, but the traditional school system could be insufficient for today's students (Leu et al. 2007). The use of the computer for language learning, therefore, has been introduced because it is 'ideal for language practice that requires a variety of written and spoken contexts' and because it is 'very patient about repetition and recycling' (Schmitt 2000: 146). For example, Hsu and Wang (2010) suggest that in 'new technologies such as video technologies, the Internet and gaming software', new literacy can be used to 'encode and decode meanings through non-printed text, such as animation, music, video, and games' (p. 401). Specifically, Gee (2004) suggested that video game could be another form of learning in the future. I will therefore limit the following section to new literacy in

computer games, arguing that gaming could be a way of learning literacy through reading online texts.

4.2.3 Gaming Literacy and Online Reading

Some researchers have introduced video games to classroom learning (Hsu and Wang 2010; Lacasa et al. 2008; Sanford and Madill 2007). Hsu and Wang (2010) used the specific term "gaming literacy" to include skills such as reading the text and an 'ability to successfully function in computer-gaming environments' (p. 402). Gee (2007) argues that 'when people learn to play video games, they are learning a new literacy' (p.17). A literate game player should read and play games by recognising the following factors: 'text, visual-graphic elements, audio elements, game goals, game rules, and scenario design' (Hsu and Wang 2010: 403). Lacasa et al. (2008) write that 'the text was produced after a multimodal interaction with different media that included game play and its on-screen sounds and images, as well as theatre/dramatic representation' (p. 97), referring to the video game script as 'an example *of multimodal literacy,* not just written language' (p. 97). Sanford and Madill (2007) suggest that literacy skills are being learned through engagement with video games. It seems therefore that playing games can be a way of learning new literacy.

Some studies deal with the relationship between offline reading (print text reading) and new literacies of online reading (digital or electronic text reading) (Abanomey 2013; Anderson 2003; Coiro 2007; Coiro and Dobler 2007; Leu et al. 2005; Leu et al. 2007). Although their research contexts are different from my EFL context, studies in EFL online reading are few at present so I refer to their research here. Coiro and Dobler (2007) conducted research with 11 sixth grade students in Connecticut and Kansas, using questionnaires, think-aloud protocols, observation and post-reading interviews. They found that online reading comprehension among proficient sixth grade students showed similarities with offline reading. Leu et al. (2005) carried out their research in New England with 89 seventh-grade students (42 males; 47 females). They conducted the experiment with twelve weeks of intervention, with and without additional instructional support, in a science classroom to measure the

new literacies of online reading comprehension. However, Leu et al. (2005) found that there was no significant correlation of performance measurement between offline reading and online reading comprehension from the results of using a blog and tests. Leu et al. (2007) have done the interesting experiment of administering the same set of online reading tasks to three seventh grade students (Riko, Tomas and Marcos) to compare their online performance with their levels of offline reading proficiency. They built up the isomorphic reading hypothesis that students' online reading proficiency levels should match their offline levels. According to this hypothesis, Leu et al. (2007: 8-11) established three different kinds of readers as follows:

- **Isomorphic Hypothesis**: displaying proficiency in both offline and online reading
  Example> Riko was a high-achieving offline reader and showed high proficiency in online reading comprehension

- **Nonisomorphic Hypothesis**: low-achieving offline reader but high-achieving online
  Example> Tomas was a weak offline reader but showed high proficiency in online reading comprehension

- **Nonisomorphic Hypothesis**: high-achieving offline reader but low-achieving online
  Example> Marcos was a high-achieving offline reader but a low-achieving online reader

(Leu et al. 2007: 8-11)

The studies of Coiro and Dobler (2007), Leu et al. (2005) and Leu et al. (2007) have investigated the assumption that offline reading and online reading would be identical. However, their research showed different results, which led me to suggest that we cannot yet assume or conclude that there is a relationship between the offline and online reading abilities of EFL Korean children and know what factors affect the relationship between children's offline and online reading proficiency. However, I can assume from their results that some features, such as each individual's cognitive abilities or personalities, would relate to the different

abilities in offline and online reading. Another assumption is that it would be possible for a poor offline reader to be a good online reader. The assumption would be good news for poor EFL readers in the classroom. However, I cannot confirm my assumptions in this thesis because it does not focus on the comparison of proficiency between offline and online readers. We therefore need more research studies in EFL online reading. The review of the difference between children's offline and online reading proficiency did not reach a clear conclusion, but I would argue that online texts are clearly different from offline paper texts because of their unique characteristics. For example, Abanomey (2013) suggests that online texts display an unpredictable and random path, in contrast to printed texts taking a predictable and fixed form. Coiro (2003) also suggests that online texts are 'nonlinear, interactive and inclusive of multiple media forms', presenting the three types of online texts that readers encounter: nonlinear hypertext, multiple-media texts and interactive texts. Coiro (2003) argues that comprehending online texts would be more challenging and harder than reading print texts because the different types of electronic texts have new features requiring different comprehension processes. However, one problem with Coiro's argument is that it is possible that students who are poor at reading print texts can be good at reading online texts (Leu et al. 2007). It is possible that students need new skills and strategies in online reading (Coiro 2007; Leu et al. 2007). This is because 'electronic texts that incorporate hyperlinks and hypermedia introduce some complications in defining comprehension because they require skills and abilities beyond those required for the comprehension of conventional, linear print' (Snow 2002: 14), although Foltz (1992) found that his subjects used a similar reading strategy in reading three different text formats: standard linear text, hypertext or coherent hypertext.

4.3 Research on Offline Reading Strategies in the Korean Context

4.3.1 Overview of Previous Research

There appears to have been no research specifically into Korean EFL young learners' online reading strategies in computer game texts until now. I will therefore consider the available previous research on Korean EFL young learners' "offline" (conventional) reading strategies (Cho 2003; Lim 2003; Park 2010; Shim 2006; Yu 2010). Table 4.1 below presents the studies according to type of publication, purpose of study, research subjects, data collection methods, and investigated variables in chronological order. I will discuss them in the following section 4.3.2, according to proficiency (Cho 2003; Lim 2003; Park 2010; Shim 2006; Yu 2010); gender (Cho 2003; Park 2010; Shim 2006); reading strategy instruction or training (Cho 2003; Lim 2003; Shim 2006; Yu 2010); and specific reading strategies (Park 2010; Shim 2006; Yu 2010).

Table 4.1 Overview of Research on Reading Strategies for Korean EFL Young Learners Conducted in South Korea

Researcher	Type of Publication	Purpose of Study	Setting	Research Methods	Investigated Variables	Key Findings
Cho, W. H. (2003) 조원희 [호서대 박사]	Doctoral Thesis	Exploring the effectiveness of using a learning strategy in teaching English reading	66 Elementary school students (5th grade)	Experiment (1 experimental & 1 control groups)	Proficiency, Gender	• Found that there was no significant effectiveness and difference of using reading strategies on improvement of English proficiency and gender • Found that learning strategy training had a positive influence on proficiency • Found that more proficient learners used more strategies than less proficient ones
Lim, S. J. (2003) 임순주 [대구교대 석사]	Master's Dissertation	Examining the effects of reading strategies instruction on reading comprehension	36 Elementary school students (5th grade)	Pre and post- tests after reading strategy instruction (Independent t-tests & paired t-tests)	Scores (reading comprehension and reading attitudes), Proficiency	• Found that the scores on reading comprehension improved • Found that the lower group used few reading strategies and less proficient group improved more than the upper group's
Shim, M. S. (2006) 심미성 [부산교대 석사]	Master's Dissertation	Investigating the effect of affective strategies on elementary school students' reading proficiency	58 Elementary school students (5th grade)	Pre and post- reading ability tests using PELT (Primary English Level Test), Questionnaires, and Experiment (1 experimental & 1 control groups)	Affective strategies, Proficiency, Gender	• Found that gender affected the strategy use significantly: the female students used significantly more cognitive strategies and affective strategies • Found that more successful learners used more strategies than unsuccessful learners significantly • Found that the correlation between an English scholastic achievement and learning strategies showed positive correlation significantly • Found that the experimental group showed positive and meaningful difference in the reading test and that the experimental group got slightly higher scores than the control group in reading test

Park, M. O. (2010) 박미옥 [전남대 석사]	Master's Dissertation	investigating the cognitive learning strategies used by Korean elementary school students in EFL reading and listening	164 Elementary school students (6^{th} grade)	Pre and post- reading ability tests using PELT (Primary English Level Test), Questionnaires using CLSS (Cognitive Learning Strategy Survey), and Experiment (1 experimental & 1 control groups)	Mean score, Gender, Proficiency, Cognitive strategy	• Found that the females' mean score for reading was higher than males' and there was a significant difference in reading scores • Found that the females' mean score for cognitive strategy was higher than males but the difference was not significant • Identified that cognitive strategies were strongly correlated with language proficiency: High-level students used more cognitive strategies than middle and low-level students • Identified that Korean elementary students' favourite strategy was note-taking whilst their least favourite strategy talking with English speakers
Yu, M. K. (2010) 유미경 [부산교대 석사]	Master's Dissertation	Investigating the effect of training reading strategies on elementary school students' English reading ability	166 Elementary School Students (5^{th} grade)	Pre and post-questionnaires, Pre and post- reading ability tests using PELT (Primary English Level Test), and Experiment (1 experimental & 1 control groups)	Proficiency, Frequency of usage of reading strategies, Scores	• Identified that successful learners used significantly more strategies than unsuccessful learners • Found that the reading strategies effectively improved students reading abilities and frequency of reading learning strategies • Found that the experimental group showed a positive and meaningful difference on the reading test and the frequency on reading strategies

4.3.2 Discussion of Previous Research

This section discusses the previous Korean studies listed in Table 4-1, grouping them, according to studies of proficiency, gender, reading strategy training or instruction and types of reading strategies. The proficiency studies were carried out by four researchers (Cho 2003; Lim 2003; Park 2010; Shim 2006; Yu 2010). Cho (2003) conducted a rigorously designed experiment between an experimental group with learning strategy training and a control group in a traditional way in English reading, although her research was a small scale with only 33 students of each group in the fifth-grade. She found that strategy training influenced the learner's proficiency positively. Lim's (2003) study focused on reading strategy instructions through which she compared the scores of reading comprehension before and after. She conducted the instruction only with one class of 36 students in the fifth-grade, in which she divided the class into upper- and lower-proficiency groups. She found that the scores of reading comprehension of the lower group improved more than the upper's. Shim's (2006) research contributed to the study of affective reading strategies in proficiency. She conducted an experiment, in which she taught English with affective strategy in the experimental group; and with curriculum-oriented lesson in the control group. She found that the more successful learners used more strategies than unsuccessful learners. Park (2010) investigated cognitive learning strategies for reading with a large number of subjects, 164 students of the sixth grade. To investigate the cognitive learning strategies used in reading comprehension, she employed a reading ability test using PELT (Primary English Level Test) and questionnaires using CLSS (Cognitive Learning Strategy Survey). She then compared their scores, according to proficiency. She found that the high-level students used more cognitive strategies than the middle- and low-level ones. Yu (2010) focuses on the investigation of English reading ability, usage of reading strategies and affective factors. Her research scale was 56 fifth-grade students in the experiment (28 in the experimental group; 28 in the control group). She conducted reading strategy training during the experiment with one experimental group; pre and post-questionnaires; pre and post-reading ability tests. She found the same result with Shim (2006): more proficient learners used more reading strategies than the less proficient. The results of Park (2010),

Shim (2006) and Yu (2010) are consistent with research in other contexts, in which the more proficient students were better reading strategy users (Carrell 1989; Devine 1987; Garner 1987; Padron and Waxman 1988). However, in the ESL context, Anderson (1991) found that there were no differences in strategy use between better readers and poorer readers. He investigated the differences in reading strategy use, across three English proficiency levels, with 28 ESL Spanish university-level students in the US. Although Anderson's (1991) context is different from the EFL context, it may be worth noting his argument that poorer readers seemed to be less skilled at monitoring the success of strategy use: 'knowing how to assess the success of a given strategy and apply corrective feedback to its use' (p. 469). Anderson (1991) argues that it is important for readers to know what strategy to use, how to use a strategy and how to evaluate the use of the strategy, as follows:

> Strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies. It is not sufficient to know about strategies; a reader must also be able to apply them strategically.
>
> (Anderson 1991: 468-469)

Anderson's criterion, 'how to evaluate the use of the strategy', is related to "metacognitive" strategy. Metacognition refers to 'cognition of cognition' and 'learners' understanding and control of their own thinking and learning' (Koda 2005: 211). Macaro and Erler (2008) suggest that metacognitive strategies are involved in 'planning, monitoring, and evaluating one's learning and/or one's strategy use' (p. 95). Some researchers argue that readers need to be aware of which strategies to use and thence metacognitive strategies are more important for them to develop reading comprehension (Anderson 1991; Block 1986; Carrell 1989, 1992; Carrell et al. 1998; Dreyer and Nel 2003; Paris et al. 1983). Although the use of metacognitive strategies is important, I found only one research study (Park 2010) conducted with Korean elementary school students: her study (2010) showed that metacognitive strategies influenced reading proficiency, but the high level students did not often use them. It seemed that Korean researchers regarded Korean children as

beginners or low-level readers, who were unable to monitor their strategy use. Nonetheless, Paris et al. (1983) suggest that children also need to be aware of how to use strategies to improve their reading comprehension and to become self-directed or self-controlled learners who can 'plan, evaluate and regulate their own skills' (p. 293). Grabe and Stoller (2002) suggest that 'the ability to use strategies to understand a text better is a basic goal of reading instruction' (p. 140). More research about metacognitive strategies for Korean children's reading should be done in the future.

Three studies considered gender as a variable affecting reading strategy use (Cho 2003; Park 2010; Shim 2006). Cho (2003) found that there was no significant difference in using reading strategies by gender. However, Shim (2006) found that the female students used significantly more cognitive and affective strategies than the males. Park (2010) also found that the mean scores of the female students for reading and cognitive strategy were higher than the males'. Those different results suggest that the gender studies need to be done more in the future.

Five studies focused on reading strategy instruction or training (Cho 2003; Lim 2003; Shim 2006; Yu 2010). Cho (2003) found that learning strategy instruction training influenced experimental group positively. Lim's (2003) result showed that the scores of reading comprehension improved after taking reading strategy instruction. Shim (2006) found that the experimental group with training received slightly higher scores than the control group in the reading test. Yu (2010) found that the experimental group with training showed a positive and meaningful difference in the reading test and the frequency in reading strategies. The results of these studies showed that reading strategy training gave positive effects on improving students' reading abilities and using more reading strategies, although those studies were not big scale research and it was hard to generalise their results. When it comes to linking this to the above proficiency studies of Park (2010), Shim (2006) and Yu (2010), conducting proper reading strategy training seems to be helpful and effective to the less proficient readers.

I found only three research studies that dealt with specific reading strategies (Park 2010; Shim 2006; Yu 2010), which were relevant to my study. Shim (2006) found that her students used reading strategies based on saying vocabulary in English aloud and guessing unknown words, which overlapped with vocabulary learning strategies. Park (2010) suggested reading strategies of repeating new words; translating English into Korean language to remember sentences; and guessing the meaning of new information. The strategies of Yu's (2010) study included saying new vocabulary in English aloud and asking questions. I was able to find a few studies about reading strategies and I found a gap between what is now known about Korean young learners' reading strategies and online reading strategies, which I will discuss in section 4.4. Among those Korean studies, those by Park (2010) and Yu (2010) were informative in terms of providing a number of reading strategies and a large number of subjects which was more than the other studies provided. In addition, Yu (2010) conducted reading strategy training and showed the necessity of training to encourage students to use more strategies and improve their reading abilities. This point was very informative to my study. This is because I hope that I can suggest a type of reading strategy training in the future, although it will be limited to find reading strategies used by RuneScape players.

4.4 Research about Online Reading Strategies in Diverse Contexts

In this section, I review the research about online reading strategies in various contexts to look for the reference data for my study. Online texts in new literacy and multimodality differ from paper-based texts (Abanomey 2013; Coiro 2003). Readers require new skills and strategies in online reading (Coiro 2007 and Leu et al. 2007). Park and Kim (2011) suggested that online reading strategies enable EFL readers to help their meaning making process and make their reading efficient. Research about online reading strategies are scarce so I will deal with the available and various contexts' research in online reading strategies to look for the relevant reading strategies, which can offer a theoretical framework in this study. First, in the L1 context, Hsieh and Dwyer (2009) conducted research about online reading

strategies with university students in the US. They investigated the effects of three online reading strategies: rereading strategy, keyword strategy and question and answer strategy, revealing the results that the rereading strategy affected the subjects' higher achievement significantly. They suggested that rereading strategy is an important strategy that 'helps increase students' reading fluency and creates a critical connection with reading comprehension' (Hsieh and Dwyer 2009: 47).

In the Korean context, research about Korean young learners' reading strategy use in traditional paper-based texts has been investigated (Cho 2003; Lim 2003; Park 2010; Shim 2006; Yu 2010). However, only one researcher has investigated Korean learners' reading strategies and strategy use in the online reading context (Hyun 2010). Hyun's (2010) research was the only empirical study on Korean EFL students' online reading strategies conducted in Korea, but target students were not elementary school students but 255 H Cyber University students in Seoul. Hyun (2010) investigated what reading strategies in online learning environments students used most frequently, using a modified questionnaire developed by Park, Y. Y. (1999). The results showed that university students used information-seeking strategies most frequently and vocabulary-comprehension strategies, understanding the structure of a sentence and a text, and metacognitive strategies in that order; guessing and comprehension-checking strategies least frequently. Hyun's (2010) study is worth noting here because it is the only research about online reading strategies in Korea. Regardless of the different target age from mine, the questionnaire items she employed were entirely based on the conventional reading strategies, not specifically for online reading. I was therefore unable to find the proper online reading strategies that I need for my framework from her study.

In the ESL context, Park and Kim (2011) examined college-level ESL learners' (one Korean, one Taiwanese and one Peruvian student use of reading strategies and hypertext and hypermedia resources while reading online texts in the US. They conducted a qualitative case study focused on three participants who came to the US for studying: Lin-Fang, a woman aged 26 from Taiwan; Daniela, a woman aged 18 from Peru; and Yoon-Su, a man aged 25 from South Korea. They collected data

from online surveys, training sessions and three online reading tasks, and analysed qualitative data and think-aloud reports. They revealed the participants' online reading strategy use and found the seven strategies: (a) using hypermedia, (b) using computer applications and accessories, (c) dialoguing, (d) setting up reading purposes and planning, (e) previewing and determining what to read, (f) connecting prior knowledge and experiences with texts and tasks, and (g) inferring (Park and Kim 2011: 2161). They suggest that the first two strategies are unique to online reading and the rest of the strategies can apply to both online reading and paper-based text reading. Although the context of Park and Kim's (2011) study based on college-level ESL learners' online reading tasks was different from mine, I can assume that the online reading strategies of "using hypermedia" can be applicable to online game-based texts in this study.

In the EFL context, Huang et al. (2009) investigated 30 Taiwanese EFL university students' online reading strategies and the effects of strategy use on reading comprehension. They created a Web-based reading program, "English Reading Online" and asked 15 subjects in a high proficiency group and 15 in a low proficiency group, to read four authentic online texts; two were appropriate to the students' level of proficiency, and two were more difficult. They classified the four online reading strategy groups into global strategies, problem-solving strategies, support strategies and socio-affective strategies. They created 15 strategy function buttons under four strategy groups in the reading program to record and identify the online reader's use of a particular strategy by a reader's act of clicking. Table 4.2 below shows the strategy categorisation of the four online reading strategies suggested by Huang et al. (2009: 23), presenting each strategy's descriptions according to each button.

Table 4.2 Online Reading Strategy Categorisation by Huang et al. (2009: 23)

Strategy	Description	Button
Global	Using prior knowledge Previewing text before reading Predicting or guessing text meaning Noting text characteristics	Keyword Preview Prediction Outline
Problem-solving	Reading shortened versions of the text Reading aloud when text becomes hard Adjusting reading rate Visualizing information read	Summary Pronunciation Speed reading Semantic mapping
Support	Using reference materials Translating from English into Chinese Underlining information in text Taking notes while reading	Dictionary Grammar Translation Highlight Notebook
Socio-affective	Using music Asking peers questions	Music box Question

Huang et al.'s (2009) research found that support strategies, such as translating, using dictionaries or highlighting, were used mainly by students to facilitate reading comprehension. They argued that, aside from translation, the frequent use of the dictionary resulted from the EFL learners' perception of vocabulary, as the most difficult task, so they employed it most frequently when encountering difficulties in reading comprehension. The strategy of using dictionary is consistent with the results of research about EFL vocabulary strategies by Chinese students (Gu and John's 1996) and Japanese students (Schmitt 1997). Although Huang et al.'s (2009) study was based on Taiwanese EFL university students, I suggest that Korean EFL children would also use dictionaries to look up unknown word meanings when encountering difficulties in comprehending online texts. In this study, I will deal with the strategy of using dictionary in the section of vocabulary learning strategies. In the EFL and ESL contexts, Anderson (2003) investigated the online reading strategies used by 131 EFL learners in Costa Rica and 116 ESL learners in the US, and reported the results of questionnaires using 38 items related to reading strategies, which were adapted from "The Survey of Reading Strategies" (SORS) developed by Sheorey and Mokhtari (2001). Anderson (2003: 1) categorised the items into three groups: global reading strategies (18 items), problem solving

strategies (11 items) and support strategies (9 items). He identified the top 12 and the bottom 12 online reading strategies reported by his subjects. Based on Anderson's (2003) research, I made a list in Table 4.3, which merged his questionnaire items (p. 30-32) with the suggested top 12 and bottom 12 reading strategies (p. 16-17) to show his categorisation of online reading strategies. In Table 4.3, the first column presents 4 reading strategies; the second, most used 12 strategies (top 12) and least used 12 strategies (bottom 12); and the third, 38 questionnaire items and their descriptions.

Table 4.3 Online Reading Strategy Categorisation by Anderson (2003: 16-17 & 30-32)

Strategy	Top 12 & Bottom 12 Strategies	Questionnaire Items & Descriptions
Global		1. I have a purpose in mind when I read on line.
	38	2. I participate in live chat with other learners of English.
	37	3. I participate in live chat with native speakers of English.
	7	5. I think about what I know to help me understand what I read on-line
		6. I take an overall view of the on-line text to see what it is about before reading it.
		8. I think about whether the content of the on-line text fits my reading purpose.
	29	10. I review the on-line text first by noting its characteristics like length and organization.
	10	14. When reading on-line, I decide what to read closely and what to ignore.
		17. I read pages on the Internet for academic purposes.
		18. I use tables, figures, and pictures in the on-line text to increase my understanding.
		20. I use context clues to help me better understand what I am reading on-line.
	32	23. I use typographical features like bold face and italics to identify key information.
		24. I critically analyse and evaluate the information presented in the on-line text.
		26. I check my understanding when I come across new information.
	6	27. I try to guess what the content of the on-line text is about when I read.
		30. I check to see if my guesses about the on-line text are right or wrong.
	12	32. I scan the on-line text to get a basic idea of whether it will serve my purposes before choosing to read it.

		33. I read pages on the Internet for fun.
Problem Solving	4	9. I read slowly and carefully to make sure I understand what I am reading on-line.
	1	11. I try to get back on track when I lose concentration.
	11	13. I adjust my reading speed according to what I am reading on-line.
	3	16. When on-line text becomes difficult, I pay closer attention to what I am reading.
	28	19. I stop from time to time and think about what I am reading on-line.
	9	22. I try to picture or visualize information to help remember what I read on-line.
	2	28. When on-line text becomes difficult, I re-read it to increase my understanding.
	5	31. When I read on-line, I guess the meaning of unknown words or phrases.
		34. I critically evaluate the on-line text before choosing to use information I read on-line.
	8	35. I can distinguish between fact and opinion in on-line texts.
		36. When reading on-line, I look for sites that cover both sides of an issue.
Support	36	4. I take notes while reading on-line to help me understand what I read.
	33	7. When on-line text becomes difficult, I read aloud to help me understand what I read.
	34	12. I print out a hard copy of the on-line text then underline or circle information to help me remember.
	31	15. I use reference materials (e.g. an on-line dictionary) to help me understand what I read on-line.
		21. I paraphrase (restate ideas in my own words) to better understand what I read on-line.
		25. I go back and forth in the on-line text to find relationships among ideas in it.
	30	29. I ask myself questions I like to have answered in the on-line text.
	35	37. When reading on-line, I translate from English into my native language.
	27	38. When reading on-line, I think about information in both English and my mother tongue.

In Anderson's (2003) research results, eight of the top 12 strategies (67%) are problem solving strategies; while seven of the bottom 12 strategies (58%) are support reading strategies. Anderson (2003) also compared the online reading strategies of EFL readers with ESL readers, but there were no significant differences between the EFL and the ESL groups. Interestingly, both Anderson (2003) and

Huang et al. (2009) investigated EFL learners' reading strategy use, but their results were opposite: support strategies were most frequently used and problem solving strategies least used in Huang et al.'s (2009) study. It is certain that Anderson's (2003) and Huang et al.'s (2009) data collection methods and strategy items were different. However, the reason for their different results may result from the learners' living contexts, as Anderson's (2003) students were from Costa Rica, Huang et al's (2009) from Taiwan. I can assume therefore that, although students are in the same EFL contexts, their preference and online reading strategy use could be different according to the countries in which they live. I suggest therefore that Korean EFL learners would show a different pattern of reading strategy use, regardless of different ages.

4.5 Summary

This chapter has reviewed literature on reading in EFL, addressing issues on the challenges and solutions for children's reading, in which gaming literacy and online reading with features of new literacy and multimodality have been considered. It has then investigated offline and online reading strategies based on previous studies in various contexts. The next chapter reviews literature on the potential of computer games and MMORPGs for language learning; and then discusses the potential of RuneScape for English learning for Korean EFL young learners.

Chapter 5 POTENTIAL OF MMORPGS FOR ENGLISH LEARNING

5.1 Introduction

A guiding principle of this study is that although using technology can be useful or helpful for English education, learners should be given priority. Stanley (2013), an English teacher in Barcelona, stresses the learners more than technology or learning objectives, stating that 'this is why one of the best ways of knowing if, and how much, technology should play a part in your class is by finding out from your learners their attitudes to using technology for language learning' (p. 9). Taking the learner's view into consideration, this chapter aims to review the literature about the use of computer games for learning and MMORPGs for English learning. It then discusses the potential of RuneScape for English learning and leads to identifying the differential between the existing literature and this study.

5.2 Potential of MMORPGs for English Learning

5.2.1 Use of Computer Games for Learning

Before considering my definition of computer games, I first need to define game. Smed and Hakonen (2003) suggest that there are three components in any game: '*players* who are willing to participate in the game (e.g., for enjoyment, diversion or amusement); *rules* which define the limits of the game; and *goals* which give arise to conflicts and rivalry among the players' (p. 1). Also, they assert that the relationships within a game form three aspects: 'challenge', 'conflict' and 'play' (Smed and Hakonen 2003: 2). Dempsey et al. (2002) define a game as 'a set of activities involving one or more players' with not only 'goals, constraints, payoffs and consequence' but also 'rule-guided and artificial' aspects and 'competition' (p. 159). Based on the definitions of game, the various features of the computer can be added to the definition of game to arrive at an understanding of computer games. Sandford and Williamson (2005) describe computer games as one of the 'digital applications that can be controlled by individuals or groups of players using

a PC' (p. 1). Kirriemuir and McFarlane (2004) define a computer game as one that: 'provides some visual digital information or substance to one or more players; takes some input from the players; processes the input according to a set of programmed game rules; (and) alters the digital information provided to the players' (p.6). Smed and Hakonen (2003) consider 'the three roles for a computer program in a game': 'co-ordinating the game process, illustrating the situation and participating as a player' (p.3-4). Apart from the above definitions, enjoyment when players are playing computer games would be another feature. It is a very important feature of my own research. This is because players' motivation for participating in computer games may be stimulated through having enjoyable experiences within the environments of the computer game: a rule governed and competitive environment, seeking reward and tackling challenges.

Some researchers believe that computer games may have the potential to transform learning (Gee 2003; Rankin et al. 2006a; 2006b). Rankin et al. (2006a) write that 'computer games function as pedagogical tools that create active, interested and critical learners' and also provide 'authentic environments for learning, complete with ample opportunities for students to develop and test their knowledge' (p. 1). Sandford and Williamson (2005) suggest that three characteristics of games would make them effective learning environments: hard fun or flow, tasks and virtual characters. One of the most attractive points of games for learning may be fun or pleasure to motivate children to continue with their activities (Sandford and Williamson (2005). From the constructivist perspective, computer games can challenge players to explore and overcome complex problems, enabling them to deal with similar situations in the future. This activity of computer games could be described as 'hard fun' (Sandford and Williamson 2005: 3) or the 'flow' proposed by Csikszentmihalyi, M. (1990). This flow is related to 'gaming activities where … working against the clock, and perhaps striving to complete a task and go up to the next level' (Somekh 2006: 123). Rather than 'sugar coating education' (Kirriemuir and McFarlane 2004: 21) or 'leisure-based fun activities' (p. 22), it seems that the pleasures of games could be related to 'flow experiences' (p. 22), which can be facilitated by structures of games and environments to support

learning. This flow may be related to vigorous and active learning. Secondly, Sandford and Williamson (2005) suggest that "tasks" of computer games are connected with an aspect of constructing learning environments as 'a process of constant practice and interaction in progressively more challenging tasks' (p. 4). Learners could practise and complete these tasks in order to acquire targeted goals, or to attain their own know-how to decipher rules and systems. Thirdly, constructing virtual identities and characters (or avatars) could be an aspect of the learning environment as it encourages players with 'hypothesising or conjecturing about the identity of the character they are controlling on a screen' (Sandford and Williamson 2005: 4). When young people play online games, playing usually entails 'creating a personal/ virtual identity and exploring a virtual terrain, acquiring special possessions, overcoming obstacles and interacting with other personal/ virtual identities' (Somekh 2006: 122). Through these experiences, learners would explore and develop different identities and keep their incentives to make progress and achieve self-confidence. Computer games can offer these possibilities as a tool for English learning, building up the learning environment. It is necessary to consider how teachers use them in the classroom; they can be used well or badly just as other teaching aids can.

While computer games could provide an enhanced learning environment, a fundamental problem is the common viewpoint or attitude towards their contents. As Gee (2003) notes, playing computer games may be considered as 'meaningless play' or 'a waste of time' (p. 21), as opposed to a tool for schooling or learning. In my experience, Korean children are generally under pressure to score highly in school exams, so many Korean parents regard playing computer games as a waste of time. Nonetheless, it is increasingly proposed that computer games can support learning. New ways are constantly being found to use computer games to enhance learning, with the adoption of rapidly evolving ICT for learning resources and media in education.

5.2.2 Use of MMORPGs for English Learning

With an on-going debate on the reasons for using computer games for learning, some games have been specifically designed for learning while others have been exploited for their learning potential in educational contexts. Games designed for education are known as “bespoke games” or “edutainment games”, to distinguish them from commercial games which are called “mainstream games”. Kirriemuir and McFarlane (2004) note that edutainment games tend to lack the fun element, as they are designed for one person and offline play only, and therefore they do not motivate children to learn. Making learning fun is a key goal in edutainment games and the best educational games might be ‘those which embed the pedagogical objectives so that the learners’ perceptions are of play, while the teachers’ hidden objectives are still achieved’ (Beatty 2003: 54).

Unlike edutainment games, mainstream games have the central aim of being fun and exciting for users; they are not designed for learning. For this reason, I selected a mainstream game, RuneScape, for my study, to provide Korean children with fun and the motivation to continue playing. Amongst the mainstream games, I wished to find a kind of computer game, which could ‘create an environment in which use of the target language is required throughout the game to meet the challenges set before the player’ (Bryant 2007: 4), and could embed some more ‘realistic element of communication’ (Milton 2002: 20). Based on the criteria of computer games, I selected MMORPGs as a genre of role playing games for learning, particularly English learning. The term MMORPG was coined by Richard Garriott, the creator of Ultima Online, in 1997. Yee (2006) says that MMORPGs are ‘a new paradigm in computer gaming’ (p. 310), defining MMORPGs as ‘a scenic chat room with a variety of interactive tasks’ (p. 311). Steinkuehler points out digital characters or avatars as a feature of MMORPGs in the online virtual world as follows:

> Massively multiplayer online games (MMOGs) are highly graphical 2- or 3-D video games played online, allowing individuals, through their self-created digital characters or *avatars* to interact not only with the gaming software (the designed environment of the game and the

> computer controlled characters within it) but with other players' avatars as well. (Steinkuehler 2004: 1)

The distinctive points of MMORPGs over other computer game genres are immense and 'real-time ongoing interactions with other players from around the world' (Van Loon 2008:4). Players can talk, fight or trade with other players. 'Most people are strangers to each other, but that does not stop them interacting and trading with each other' (Van Loon 2008: 4). In MMORPGs, a large number of players throughout the world can play in an online virtual world at the same time. The following points seem to provide potential of MMOPRGs to be useful tools for learning and English learning in particular: immersive virtual worlds, English platforms and communication via chatting. First, MMORPGs can immerse players in virtual worlds. Players may not be using English as a first language in their native settings; however, they can experience substitute situations via the virtual environment of MMORPGs. MMORPGs have the potential to be a type of supportive situated learning: Rankin et al. (2006a: 2) suggest its factors such as 'immersive learning environment' and 'social interaction among players', as follows:

> An immersive learning environment that promotes the development of deep, conceptual knowledge of a particular domain by allowing players to experience the virtual world through sight, sound, participation and imagination, social interaction among players in support of reflective learning as players consider the consequences of their decisions and game outcomes, active learners who assume the role of the characters they have created and consciously commit to the advancement of these characters in the virtual world.
>
> (Rankin et al. 2006a: 2)

Second, MMORPGs consist of mainly English-based platforms, which bring together game players for 'challenging real-time gaming and role-play within network-based simulations' (Peterson 2010: 83). MMORPGs probably provide players with rich environments for using English, in which they can communicate with one another, 'apprentice themselves to relative experts, accomplish shared goals, and take on increasingly central roles of participation in order to solve complex problems'

(Schrader et al. 2006: 1). Suh et al. (2010) suggest that in the contexts of MMORPGs, 'students need to learn the knowledge and skills of English and practise them in authentic ways; to make game playing effective in language learning and to extend its impact, more sophisticated experiential games may be necessary' (p. 371). Third, communication between players in MMORPGs provides potential for language learning (Mawer and Stanley 2011). Using text chat can lead players to communicate with each other inside the game, whilst visiting forums and websites can lead them to share their interests, tips and strategies outside of the game. As a way of solving time and space problems, Bryant (2007) suggests that 'an MMORPG would seem to be the ideal solution, allowing (his) students to play in the same environment and interact with players from other countries' (p. 2). I suggest that MMORPGs could provide learners with virtual and immersive environments and English platforms, in which they chat and communicate with a number of players in other countries at the same time.

5.2.3 Use of RuneScape for English Learning

World of Warcraft and RuneScape

The game of "World of Warcraft" (hereafter WoW), produced by Blizzard Entertainment) holds the Guinness World Record as the most popular MMORPG by number of subscribers. Peterson (2010: 84) explains how players are engaged in this game as follows:

> [I]n this game, users must adopt a fantasy character (avatar) within a simulated world, such as an elf or a dwarf and are required to complete a specific task known as a quest. For example, this can involve engaging in battle or solving a puzzle. In order to complete a quest and gain monetary or status rewards, a user must interact … with nonplayer agents controlled by the games software, explore the environment, and communicate with other players through text chat.
>
> (Peterson 2010: 84)

Through engagement in WoW, players can study foreign languages to improve 'their gaming skills and interactional capacity' (Thorne 2008: 439). Waters (2007) suggests that, in some Asian countries like China, Korea and Japan, WoW is an effective tool

for EFL learners. This is because WoW is already so popular and Asian servers are accessible to players in Asia and the United States simultaneously (Waters 2007). Nonetheless, WoW has some drawbacks. WoW is too expensive to duplicate with the purpose of language learning (Purushotma et al. 2008). WoW users are required to pay a subscription fee online for continued play in blocks of one, three or six months or purchase a software package or CD key requirement to activate the account according to regional variations. It is not suitable for beginners (particularly for young learners in my study) because it requires at least intermediate-level knowledge of the English language (Waters 2007). Major players are adults or adolescents, so it tends to be violent. It is not recommendable for children in this study. RuneScape[9] overcomes these limitations of WoW. Figure 5.1 below shows the main screen of RuneScape.

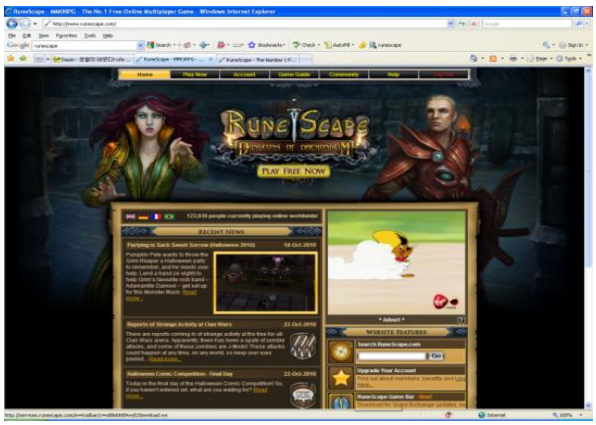

Figure 5.1 Main Screen of RuneScape

RuneScape is free to use without purchasing software or a CD key or downloading programs. There is a charged membership if users want. It seems to me that young learners do not need to pay for membership, because its free version provides enough game contents to play. According to the Guinness Book of Records, it is the world's most popular “free” MMORPG and has around 10 million active accounts (over 130 million registered accounts). Players can get access to RuneScape easily and quickly after signing up with their age and email account. It has a Java-based platform, which means that there is no need to install any software or use CDs and it

[9] RuneScape was developed by Jagex Ltd and released in January 2001 by Andrew and Paul Gower

can be played anywhere via the browser. These points led me to select it as a possible learning tool.

Discussion on Potential of RuneScape for Learning

RuneScape has a number of attractive features as a learning tool; however, it shares the inevitable controversies associated with other computer games: addiction, parents' negative perceptions, and risks and uncertainties. Osborne (2008) reported that young people who liked to play RuneScape at the library were found to exhibit addictive behavior traits: for example, 'forgetting to go to the toilet, forgetting to eat, interfering with other children and not sharing' (p. 120). 'There were no particular risks arising from the game itself but the other complications, such as boys playing for long periods of time, not taking appropriate breaks, not having lunch, not drinking, not exercising and absconding from school, were problematic' (Osborne 2008: 121). Another issue is that parents tend to underestimate the potential of computer games for learning, although there are some parents who can be completely uncritical towards ICT, seeing it as having brilliant or even magical teaching powers. In my experience, many Korean parents consider high exam scores as the most important thing in their children's lives; they believe playing a computer game is a waste of time just by judging from superficial aspects like fun, enjoyment or the investment of so much time in it. This is the heart of the problem between parents and children, 'over time spent in this sprawling city' (Van Loon 2008: 9). The parents may be suspicious of the potential of computer games for learning, because they have never had the experience themselves. In terms of risks and uncertainties, RuneScape has regulations of security, data protection and rules, in which 'it outlaws an ever growing variety of expressions and interactions (including swearing and sexual references)' (Van Loon 2008: 10); however, RuneScapists tend to break the rules constantly (Van Loon 2008). These risks and uncertainties are one of the most significant features of the virtual game world and this can be a serious pitfall in the gaming environment. As some users use inappropriate language and behaviour, RuneScape has set up a rules and report system in order to attempt to maintain a pleasant environment (See Appendix A). RuneScape does have these controversies as a tool for learning and researchers,

teachers and educators, including me, need to make efforts to find ways to overcome them.

Suggested English Learning Steps in RuneScape

Here, I describe how English learning may take place following the steps of playing RuneScape: (1) making avatars, (2) exercising in Tutorial and (3) completing the main tasks. First of all, players should select their characters' gender and appearance, such as hair, clothes and skin colour. The feature of creating avatars in this virtual world characterises RuneScape as 'an online game in which players create characters and interact with other players, game characters and objects in a virtual world' with the settings 'in the magic and mystery of the Middle Ages' (Loeppky 2006: 3). Players then need to exercise and complete basic tasks in a section of the Tutorial, in which they acquire the basic skills of the game through carrying out a variety of tasks virtually: for example, cutting wood, making fires and cooking, hunting and gathering food and mining ores. They demonstrate their competence to perform these tasks (Leoppky 2006). Muñoz Rosario and Widmeyer (2007) emphasise the role of the Tutorial system, showing the result of their study about high-scored principles in RuneScape as follows:

> RuneScape scored high for the Engaging Principle, which means the game is very appealing. The On-Demand and Just-in-Time Tutorial principle also scored high. It was observed that the built-in tutorial walking the player through the environment and teaching such player the use of the interface was well implemented. It could help players familiarize with the game story and interface.
>
> (Muñoz Rosario and Widmeyer 2007: 7)

Finally, players are able to start carrying out the tasks. They interact with NPCs (Non-Play Characters). NPC means a fictional character controlled by the computer or computer programs, not by game players. Sometimes, he or she gives advice or background knowledge about RuneScape and offers task options players can select. Players also interact and communicate with each other through trading, chatting or by participating in tasks or quests. Some of the tasks or quests are competitive or

combative in nature, whilst others require cooperative or collaborative play. During the process of this collaboration, players can be promoted for 'teamwork and problem-solving skills as well as rewarding persistence', resulting from 'testing the player's knowledge and dedication' (Muñoz Rosario and Widmeyer 2007: 6). An interesting point is that the procedure of playing RuneScape does not follow a linear storyline. Players set their own goals and objectives. Whatever RuneScape players do is completely their decision; 'nothing is predetermined' (Muñoz Rosario and Widmeyer 2007: 6). It relies on the user's free will to choose the virtual city, quests, objects and methods. This fact enables each player to personalise the contents of his or her gameplaying.

Potential of RuneScape for English Learning

I discussed earlier that the elements of English learning through MMORPGs were immersive virtual worlds, English platforms and communication via chatting. Among these elements, this section focuses on chatting within the process of encountering texts in RuneScape, to investigate the potential of RuneScape for English learning. I played RuneScape on my own to examine the language and texts in it and find out whether it has potential for English learning by scrutinising its specific aspects. In the process of playing RuneScape, players encounter a variety of language, such as generally-used vocabulary and lexical phrases (See chapter 3). They need to read the texts in the instruction box or conversation box with NPCs, explaining what the task is and how to accomplish it. Figure 5-2 below presents a screenshot, showing the text boxes in RuneScape. Whilst playing, they can communicate with other players in that chat dialogue box, to get hints or advice from more experienced ones. They need to know vocabulary meanings and be able to read the text in order to accomplish a task or a quest successfully, or to chat with other players. It is possible that they would apply vocabulary or reading strategies to better understand the text. Through these processes, I would suggest that their vocabulary and reading skills would be improved.

Figure 5.2 Screenshot of the Text Boxes in RuneScape

Specifically, when chatting between players, each player can 'define self through text and equally importantly … seek public responses from peers through comments and messaging' (Crowe and Bradford 2006: 334). In other words, 'messaging and texting form an integral part of the process of mutual identification between users' (Crowe and Bradford 2006: 334). For example, they chat or text with other players in order to get help or keys to go on tasks or quests successfully, individually or collaboratively (Leoppky 2006): to ask for new skills when they explore forums, guidance, peers' demonstration or experts' instruction (Willems 2008): and to acquire tricks or cheats to go up levels, skipping some stages. However, Leoppky (2006) cautions that 'proper social skills and chatting etiquette will gain you friends or enemies' and 'players cannot use profanity when chatting since the program will block potentially offensive combinations of letters' (p. 4). RuneScape's chatting environments are divided into two sectors: synchronous and asynchronous Computer-Mediated Communication (CMC). CMC means the 'communication that takes place between human beings via the instrumentality of computers' (Herring 1996:1). The distinction between them is that synchronous CMC is 'where interaction takes place in real time' (e.g. chat room), whilst asynchronous CMC is 'where participants are not necessarily online simultaneously' (e.g. emails) (Simpson 2004: 3). In the RuneScape context, examples of synchronous CMC would be chatting with other players or NPCs. Examples of asynchronous CMC are Quest Journal, Game

Guide and FAQs (Frequently Asked Questions) on the RuneScape homepage, communities, forums, guidebooks, cheat websites (e.g. using non-standard methods for skipping the levels) and YouTube[10] videos (e.g. peer demonstration and guidance). I present detailed explanations of these language environments with a number of screenshots, which were captured when I played RuneScape in Appendix B.

Apart from vocabulary and reading skills, players probably enhance their writing skills by writing down text while chatting or asking questions or interacting with other players. During the processes of both messaging and texting and carrying out quests or tasks, RuneScape players need literacy skills to read and write texts (Leoppky 2006). Listening and speaking skills might be improved when they use video chat with friends or groups in the IM (Instant Messaging) system, which is a communication system such as Skype[11] or MSN (The Microsoft Network). It can be an extension of RuneScape gameplaying. RuneScape enables players to engage in interactive learning of the four skills; but the focus of this study is on reading.

An important point is that the potential of MMOPRGs, including RuneScape, for English learning exists; however, only recently have researchers attempted to explore MMORPGs as a language tool. Little research with young EFL learners has been done. Research about RuneScape for English learning is rare at present, despite there being a few articles on the RuneScape game itself. I found few articles and books for this study. It is necessary to carry out further research to find the relationship between playing RuneScape or other MMORPGs and English learning for EFL young learners, including Korean young learners.

5.2.4 Use of MMORPGs in Everyday Contexts beyond Classrooms

Contemporary MMORPGs are mostly commercial or mainstream games, as is RuneScape, designed for private individuals. Primarily, the main settings are at home or in an Internet café, for individual players' own fun and interest, not for educational purposes and outside of the school context. For example, if a student

[10] YouTube, www.youtube.com
[11] Skype, http://www.skype.com/en/

plays a MMORPG for fun at home, the player would be informally studying English as a foreign language to improve their 'gaming skills and interactional capacity' (Thorne 2008: 439). The player uses English as a tool of enhancing game ability without the purpose of improving English itself. According to writers on using tasks in the classroom (e.g. Willis 1996), this is exactly the time that the most valuable and effective language learning takes place, when the learner has an extra-linguistic goal. Willis (1996) suggests that 'playing computer games in the target language will give learners valuable language experiences' outside of the classroom (p. 15).

Meanwhile, some features of MMORPG as a tool for English learning are 'real-time communication with other players, interaction with non-player characters and progression in the game through the completion of tasks known as quests' (Peterson 2010: 430). These features represent the advantages of MMORPGs as non-educational games (mainstream games) rather than purpose-built games for learning (edutainment games) for EFL young learners. The features can lead research communities to explore 'an emergent body of work, the potential of MMORPGs as tools for language learning' (Peterson 2010: 431). I suggest therefore that MMORPGs of non-educational purpose built games can be a tool for English learning and be used to support EFL young learners' vocabulary and reading skills both inside and outside the classroom.

5.3 Summary

This chapter has reviewed literature about the use of computer games for learning and MMORPGs for language learning. It has then discussed the potential of RuneScape for Korean EFL young learners' English learning. The next chapter explains research methodology relating to my research questions.

Chapter 6 RESEARCH METHODOLOGY

6.1 Introduction

Following the principles established in the previous literature review chapters, I constructed my research questions and research design, in which I carried out pilot studies, data collection and data analysis to answer the research questions. This chapter presents my research questions, addresses the research methodological frameworks and the rationale to explain why I selected a case study approach for my research. It then discusses research design, pilot studies, data collection and data analysis procedures, in which my research was situated. It finally considers the ethical issues within my research.

6.2 Research Questions

It may be useful at this point to repeat the research questions as listed in chapter 1.

> **RQ1.** Do learners learn new vocabulary when playing RuneScape?
>
> **RQ2.** What kind of reading do learners do with RuneScape?

6.3 Case Study Approach

I was consistent with Merriam's (1998) perception of case study in educational research with children, so I used case study for my study. Her perception is that:

> If the researcher is interested in the process of mainstreaming children into regular classes, for example, he or she would select a particular instance of mainstreaming to study in depth. An instance could be an individual child, a specific program, or a school. A case might also be selected because it is itself intrinsically interesting, and one would study it to achieve as full an understanding of the phenomenon as possible. (Merriam 1998: 10)

She mentioned a single case, but I would like to study a few more children so I selected multiple cases. My research is a case study approach with several cases. To find the answers to my research questions, I employed a descriptive (Merriam 1988; Yin 2003a), interpretative (Merriam 1988), exploratory (Yin 2003a), holistic and multiple (Yin 2003b) case study research. In selecting case study, I am aware of a criticism that has been argued against case study. The criticism is that case studies involve very few individuals and this is not enough to generalise to a broader context. I will deal this with the issue of generalisability in section 11.2.2. However, social science case study researchers (Creswell 2007; Stake 2005) have argued that the main goal of case study is not to generalise but to understand particular case(s), unlike the positivists' view of the quantitative or classical scientific research. The objective of case study is to 'develop as full an understanding of that case as possible' (Punch 2005: 144), considering 'the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon' (Gall et al. 1996: 436). It is consistent with the goal of my research, which investigates a few particular participants' phenomenon in detail and presents them by description and interpretation in order to understand them. However, a researcher needs thick description in a case study, but he or she might not have enough time or money to allocate to such an undertaking (Merriam 1998), and too much data leads to a difficult analysis (Hodkinson and Hodkinson 2001). Given time is available to construct a valuable case study, the product might be too long to read and use in the end (Merriam 1998). This limitation is practical and a realistic problem in my case study. To solve this problem, I have considered in advance how much data I collect, describe and interpret concerning time so that the final product should not be too lengthy to read and use. The related research design will be discussed in the following section 6. 4. A "bounded system" (Creswell 2007; Stake 1997; 2005), referring to a "setting" or a "context", is another reason why I selected case study. In the bounded system, a case is defined as 'a phenomenon of some sort occurring in a bounded context' (Punch 2005: 144). Case study researchers stress the necessity of embedding settings and contexts into case study research and investigating context-situated phenomena (Creswell 2007; Gall et al. 1996; Stake

1995; Yin 2003b). Punch (2005; 2009) argues that researchers need to identify and describe the boundaries between the case and the context clearly. This is because informants in research studies can be influenced by the social, economic and cultural contexts in which they manage their own lives, and different people have their own idiosyncratic contexts (Hodkinson and Hodkinson 2001). It means that the individually distinctive contexts result in dissimilar results of studies. I therefore tried to investigate each participant's phenomenon in each different context; however, my boundary was confined to the Korean EFL elementary students (aged 9-11) living in Seoul, South Korea. The criteria of participants I made will be discussed in section 6.4.2. Taking features of case study into consideration, I reached the conclusion that the case study approach is suitable to achieve the goal of my research, despite criticism of it.

6.4 Research Design

6.4.1 Sampling Rationale

Research Site

Convenience sampling was employed to choose the research site, because it is purposeful sampling, which is the 'method of choice for most qualitative research' (Merriam 1998: 61). A private English institute was chosen as my research site to conduct this study. I selected students attending different schools with various backgrounds as cases. The private English institute I chose was located in Seoul, the capital city of South Korea. The area of this institute consisted of people in the middle social-economic status on average. The inner-city participants would be more likely to possess computers. This is because the use of computers was greater than in rural areas, despite widespread internet access and similar internet speed all over the country. I knew the institute's headmaster (owner), who supported my research.

Criteria of Participants

I selected five single cases (participants) to take part in my research to investigate

and understand them in-depth, rather than comparing the results of experimental and control groups. In the criteria of the case, Merriam (1998: 65) argued that the researcher needs to establish 'the criteria that will guide case selection and then select a case that meets those criteria', to find the best case to study. I set up the criteria of the case to find the right case for my research and I applied them to multi-case studies (each case being individual participant) consisting of 'several cases based on relevant criteria' (Merriam 1998: 65). The criteria of my cases are as follows:

- Five participants are elementary students in grade 4-6 (aged 9-11)
- They should be interested in learning English
- The English achievement scores should be at least above average among their classmates
- Preferably, they should have some experience of using computer games or online English websites for English learning via digital tools e.g. computer, mobile, video etc.
- Their schools should be located in the inner-city in Korea, because they are more likely to have use of a computer and Internet access at home
- They are required to have computers at home with the minimum specifications for gaining access to the Internet and downloading the basic files to implement MMORPG

Recruiting Participants

The expected participants were from students in the 4th, 5th and 6th grades at the research site. The reason I excluded the 3rd grade students was that they had just begun to learn English as a compulsory subject in the elementary school, so the contents of their English learning was basic and simple with mostly pictures in the English textbook. I assumed that the higher grade students showed more computer applicable competence than the 3rd grade students. I did not take gender into account because the main purpose of my research was not to compare the results between male and female students, but to study each case in-depth by means of

case study. In selecting participants, I wanted to select students who wished to take part in the research voluntarily, with an interest in English and at least average or above English achievement scores.

Ethical Consideration

For ethical reasons, before starting my research, I had permission from the University Ethics Committee. I will consider the detailed ethical issues in section 6.9.

6.4.2 Data Collection Instruments

Screen Recorder for Text Retrieval

Text retrieval was a major data collection tool in my research. I used text data from the interacting online processes of conducting the case study. As a technical tool of recording and retrieving the text data, the video recording program (the screen recorder) was used. The screen recorder aimed to record the whole processing of the participants' game playing and then tracked and retrieved the text data. I found a number of screen recorders already commercially used for recording and tracking game players' own playing game records. On 'YouTube', a video-sharing website, for example, game players uploaded their own game-playing videos recorded by means of various screen recorders. They added their comments on using screen recording programs. Numerous screen recorders were on the Internet, so I compared some of them, regarding their features and single license purchase price: for example, BB FlashBack[12], Fraps[13], ZD Soft[14] and BSR[15] screen recorders. In particular, some screen recorders such as ZD Soft Screen Recorder and Fraps, put an emphasis on recording "game plays", along with capturing all videos. After doing research on the feasibility and functions of diverse screen recorders, I personally tried them to record RuneScape game playing after downloading the free trial version. I finally chose a 'ZD Soft' screen recorder program for my research because it was easy and handy for me to handle the recording procedure and obtain the recording files. Using this screen recorder, I recorded and stored all of my participants' video files.

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[12] BB FlashBack screen recorder, http://www.bbsoftware.co.uk/BBFlashBack_FreePlayer.aspx
[13] Fraps screen recorder , http://www.fraps.com/
[14] ZD Soft screen recorder, http://www.zdsoft.com/
[15] BSR screen recorder, http://www.thesilver.net/

Pre- and Post- Vocabulary Tests

Two vocabulary size tests consisted of a pre-test before conducting research and a post-test after completing the research. The tests aimed to identify the variations in participants' vocabulary size during the process, and if any were found, to compare them before and after research. I used a "vocabulary size test" which is a bilingual Korean version and 1000 word level made by Nation and Beglar (2007) because I was unable to find appropriate vocabulary tests for my context, which use a computer game to build vocabulary skills. Nation and Beglar's (2007) vocabulary size tests have been developed to offer a 'reliable, accurate and comprehensive measure of a learner's vocabulary size from the 1st 1000 to the 14th 1000 word families of English' (p. 9). They stated the reasons why we needed to 'measure a non-native speaker's vocabulary size': 'to see how close the learner is to having enough vocabulary to be able to perform certain tasks such as read a novel, read newspapers, watch movies, and listen to friendly conversations … This indicates that learners need to have a vocabulary close to 8,000 word families to do this; and to be able to chart the growth of learners' vocabularies. There is virtually no information on how quickly non-native speakers' vocabularies grow' (Nation and Beglar 2007: 9). I tried to find out whether the participants had a large enough vocabulary to carry out tasks and quests successfully to do research while playing MMORPG RuneScape, and chart the growth or decline of participants' vocabulary abilities. The bilingual Korean version and 1000 word level test was employed and sample questions are below. I present only the ten questions from the first 1000 word level in Korean version in Appendix C, instead of offering the whole test. This is because it has fourteen levels, which is too long to attach to this thesis.

Sample>

Vocabulary Size Test (Korean version)

First 1000

1. see: They **saw** it.

a. 잘랐다 b. 기다렸다 c. 보았다 d. 시작했다

In interpreting the test results, 'a test-taker's score needs to be multiplied by 100 to get their total vocabulary size up to the 14th 1000 word family level. … If a test-

taker got every item correct, then it is assumed that that person knows the most frequent 14,000 word families of English' (Nation and Beglar 2007: 12). Nation and Beglar (2007) advise caution in using this test, 'because the test is a measure of *receptive* vocabulary size, a test-taker's score provides little indication of how well these words could be used in speaking and writing' (p. 12). They argue that:

> Although vocabulary knowledge is the most important factor affecting the readability of a text, a test-taker's score is only a rough indication of how well a learner can read. The greatest value of the tests would be in measuring learners' progress in vocabulary learning.
>
> (Nation and Beglar 2007: 12)

Despite their concerns about the vocabulary size test, I used it because my purpose was to measure vocabulary growth of participants, not to compare their general reading abilities.

Verbal Reports and Field Notes through Participant Observation

I selected observation because it is 'one of the most commonly used research methods with children' (Pinter 2006: 125). It is effective in helping the researcher to understand the case (Stake 1995). In my research, observation was a major data collection method to seek the answers to the first research question (RQ 1. Do learners learn new vocabulary when playing RuneScape?), and the second research question (RQ 2. What kinds of reading do learners do with RuneScape?). In my research, participants' main activities were playing the RuneScape game. A method of "participant observation" was used, meaning that I would be a researcher and observer closely involved in the observation process. Participant observation in my research aimed to observe the participants' playing RuneScape and collect data. I predicted that I might observe the following:

- learners' using vocabulary strategies:
  e.g. looking up words in the dictionary (online dictionary), guessing or recalling meaning from the context with background knowledge, taking notes and reviewing (Kojic-Sabo and Lightbown 1999: 190)

- types of reading: e.g. search reading, skimming, scanning, careful reading and browsing (Urquhart and Weir 1998: 101-103)
- learners' using reading strategies: e.g. skipping an unknown word while reading, rereading to re-establish text meaning, predicting the contents of the text, making inferences, guessing the meaning of a new word from context (Grabe and Stoller 2002: 15-16)

In the observation process, a qualitative observation researcher usually 'keeps a good record of events to provide a relatively incontestable description for further analysis and ultimate reporting' (Stake 1995: 62). Stake (1995) said that the qualitative observation deals with data as 'episodes of unique description of the case' (p. 63) and these 'qualitative and interpretive data have meanings directly recognized by the observer' (p. 60). As a researcher and observer, I conducted observation and analysed and interpreted the observation data with thick description, using observation checklists. This is to provide readers with the full background and the researcher's 'interpretation, finding meanings that others cannot grasp' (Stake 1995: 62).

In an early stage of designing my research, I intended to use a method of think aloud protocol, to find out whether participants use vocabulary and reading strategies when encountering texts. The meaning of think aloud is 'stream-of-consciousness disclosure of thought processes while the information is being attended to' (Cohen 1996: 13) and 'the mental processes that readers use to understand the printed word' (Anderson 1991: 460). Although I observed participants, it would be hard to gather data of their cognitive process, which can be seen as 'a sequence of internal states successively transformed by a series of information processes' (Ericsson and Simon 1984: 11). I wished to find what they were thinking and how they were dealing with their struggles in reading texts; think aloud data tend to be obtainable when language learning is taking place, indicating the respondent is referring to their struggling (Cohen 1996). I would like to call the data from this solving process "strategies". Oxford and Crookall (1989) said that the use of think aloud protocols would be suitable to find and validate language learning strategies. Oster (2001) regards think-aloud as 'a technique in which

students verbalize their thoughts as they read and thus bring into the open the strategies they are using to understand a text' (p. 64). Koda (2005) argues that 'verbal reports are obtained when readers think aloud while engaging in reading' (p. 213). In reading research, a method of think aloud protocol to identify reading processes and reading strategies has been used (Anderson 1991; Block 1986; Hosenfeld 1977; Hosenfeld et al. 1981; Olshavsky 1976-1977; Yoshida 2008; Jahandar et al. 2012). It might be because 'reading is normally a silent, hidden process, (so) researchers cannot determine what is happening by simple observation or by product-based assessment' (Yoshida 2008: 199). However, in the use of verbal data in reading research, an issue about the validity of the think aloud method has been raised, that thinking aloud may alter the reading process of normal reading because it is different from normal silent reading (Yoshida 2008).

To identify whether the implementation of think aloud protocol would affect my participants' reading process and decide whether to use think aloud protocol in my main research, I conducted a pilot study, which will be discussed in detail in chapter 6. However, after carrying out the pilot study about think aloud protocol, I found that pilot study participants said more out loud than I predicted; I collected not only thinking aloud data, but also simple verbalising data such as *Okay*, *Yes*, *No*, *East*, *Yes, I have* and *Run*. In the main study, therefore, I predicted that participants would say anything out loud during playing the game, along with thinking aloud data. I reached the conclusion that my observation data would be more than just think aloud data. Cohen (1996) claims that think aloud (or 'self-revelation'), is a kind of verbal report involving 'self-report' (e.g. questionnaire) and 'self-observation' (e.g. journals or diaries) (p. 13), according to types of data. Therefore, the broader term "verbal reports" seemed to be more relevant than the specific term "think aloud". Hereafter, I use the term verbal reports to represent all data, which my participants say out loud.

The second record of observation is the researcher's "field notes", in which I consider 'where to observe, when to observe, whom to observe and what to observe', considering 'a research site, time, people and events' (Burgess 1982: 76).

The field notes are recorded with the descriptive narratives focusing on emergent reflections, including particular details of each participant, and overall comments of mine. They involve the following descriptions:

- Direct quotations or at least the substance of what people said
  (Merriam 1998: 106)
- Observer's comments including the researcher's feelings, reactions, hunches, initial interpretations and working hypotheses
  (Merriam 1998: 106)
- Impressions, questions, emerging themes, decision making or any other issues that arise
  (Duff 2008: 142)

The strength of field notes is that they are useful 'when information that earlier was very salient and memorable becomes harder to retrieve and reconstruct with time' (Duff 2008: 142). In the end, they can become 'part of the analysis and interpretation process itself' and thence my field notes can be regarded as 'not just a record of research, but also a kind of intervention: a platform for conceptualising, noticing, articulating, or testing our new hypotheses or ideas' (Duff 2008: 142). However, despite the strengths of field notes, there are limitations. For example, they inevitably provide only partial information or comments. The perceptions of the researcher can be subjective or biased whilst writing and this can lead to preoccupations or misunderstandings when interpreting.

6.4.3 Data Collection Procedure

With the data collection instruments, the data collection procedure was divided into three phases. Figure 6.1 presents the process of those three phases.

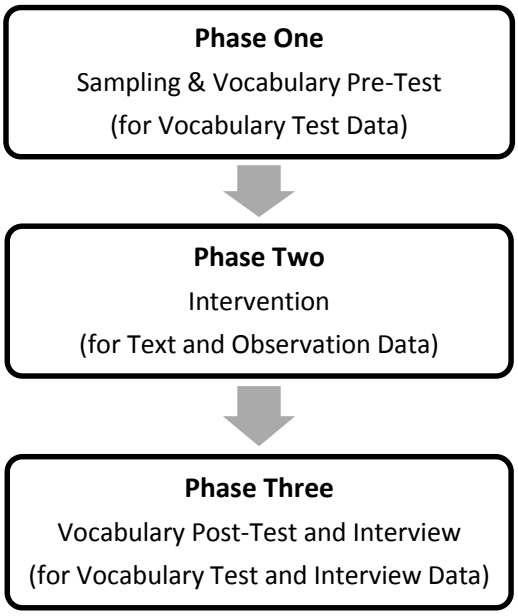


Figure 6.1 Three Phrases of Data Collection

Phase One: Sampling and Vocabulary Pre-Test (for Vocabulary Test Data)

The initial phase of the research was proposed as two stages: first, selection of participants with their parents' consent forms and training for typing on a keyboard in English; second, conducting vocabulary size pre-test. The initial work began with selecting of participants in the research site from sampling methods (See section 6.4.2). I planned that the selected participants would be trained in basic computer skills to make sure they already knew basic computer skills: for example, acquisition of the English keyboard locations and practice of typing in English via typing practice websites (e.g. BBC Dance Mat Typing[16] or Keyboarding Games at Learning Games for Kids. com[17]). This was because Korean children tend to be familiar with the Korean keyboard, but unfamiliar with the English keyboard, and lacking previous experience of using it. At this point, I conducted the participants' pre-test of vocabulary size.

Phase Two: Intervention (for Text and Observation Data)

After conducting the vocabulary pre-test, in Phase 2 the intervention process was designed, in which each participant played RuneScape, to obtain text and

[16] BBC Dance Mat Typing, http://www.bbc.co.uk/schools/typing/
[17] Keyboarding Games at Learning Games for Kids.com, http://www.learninggamesforkids.com/keyboarding_games.html

observation data about what language participants encountered, and what English vocabulary and reading strategies they used during reading texts. It constituted two stages: screen recording for texts retrieval and think aloud protocol through participant observation. In fact, a series of sessions were designed to do stage 1 and 2 simultaneously, not linearly. In stage 1, I recorded all processes of participants' playing RuneScape and later retrieved the text data, filling in the preliminary text data analytical framework (See Appendix D). The framework consisted of two sections: places to encounter language and text type. I searched for the available places to encounter language whilst playing RuneScape and divided them into RuneScape interface, message box when chatting, quest journal, FAQs and game guide, discussion boards or forums, communities and cheat websites. In terms of the types of vocabulary encountered, the retrieved text data were classified into the categorisation of vocabulary: common vocabulary and expressions, specific terms of computer games, chat speak (acronyms and abbreviations), emoticons, reduplication and RuneScape Vernacular. In stage 2, I observed participants' game playing and obtained observation data, using verbal reports with preliminary observation checklists (See Appendix E). The provisional analytical frameworks (preliminary text analytical framework and preliminary observation checklists) were based on theoretical perceptions and practical experiences. The reason why my frameworks were called "provisional" was that, as my research was proceeding, unexpected phenomena or situations could occur. This was based on Stake (1995)'s assertions that qualitative research questions 'typically orient to cases or phenomena, seeking patterns of unanticipated as well as expected relationships', 'situational conditions are not known in advance or controlled' and 'even the independent variables are expected to develop in unexpected ways' (p. 41). According to the appropriateness of unpredictable data to my research questions, my analytical frameworks would be modified.

In participant observation, I observed each participant's playing and filled in the preliminary observation checklists (See Appendix E) to collect observation data for answering the second and third research questions. The framework consisted of the three sections: (1) vocabulary strategies - looking up in the dictionary, guessing

meaning from the context and taking notes and reviewing (Kojic-Sabo and Lightbown 1999: 190); (2) kinds of reading - five types of reading from Urquhart and Weir's (1998) classification: search reading, skimming, scanning, careful reading and browsing (p. 101-103); and (3) other reading strategies such as skipping an unknown word while reading; rereading to re-establish text meaning; predicting the contents of the text; making inferences; and guessing the meaning of a new word from context. In cases when they used other strategies, which were not listed in my observation protocol, I recorded them in the comments section. I kept taking notes to describe each participant in depth (See Appendix E).

Phase Three: Vocabulary Post-Test and Interview (for Test and Interview Data)

After completing all sessions, a post-vocabulary test was planned to be carried out with the same vocabulary test paper used for the pre-test. The results of the pre- and post-vocabulary tests were for comparing and charting the differences and gaps before and after conducting the intervention. Finally, as a way of collecting supporting data, interviews were planned with open-ended questions to learners, an English teacher and a head teacher.

6.4.4 Data Analysis

I planned to analyse obtained data; quantitative data from tests was analysed using a statistical instrument as to whether any distinctions existed between pre-and post-vocabulary tests; qualitative text and observation data in the main study were analysed to identify themes and ideas using content and thematic analysis; interviews and field notes were analysed and used as support data.

6.4.5 Framework of Research Process

I present the research process framework of data collection and analysis, according to my research questions. Table 6.1 below represents the research questions in the first column, the type of data and its details in the second one, data collection methods in the third one and data analysis methods in the fourth one.

Table 6.1 The Framework of the Research Process

Research Questions	Type of Data	How to Collect Data	How to Analyse
RQ 1. **Do learners learn new vocabulary when playing RuneScape?**	1-1. *Quantitative Data* **Data:** • Tested results of learners' vocabulary pre-and post-tests	1-1. *Vocabulary pre-and post-tests* (Phase I & III) **Activity**: • Conducted vocabulary size tests: Pre-test and Post-test using "Vocabulary Size Test" (Nation and Beglar 2007)	1-1. Showing any change in learners' vocabulary abilities **How**: • Marked the results of the pre-and post-tests and compare before and after to measure and chart the growth of learners' vocabularies
	1-2. *Qualitative Data* **Data:** • Observation data • Field notes • Document analysis	1-2. *Participant Observation* (Phase II: Stage 2) **Activity**: • Observed the verbalisation of the five learners (Daniel, Charles, Kathy, Steve and Robin) and the use of the vocabulary strategies they used • Filled in the final observation analytic framework (see Appendix P) • Filled in field notes	1-2. *Content and Thematic Analysis* to make data understandable for readers **How**: • Categorised the vocabulary strategies participants used (See Appendix P). • Typed and described the results in each participant. • Identified what kinds of vocabulary strategies they used. • Counted and compared the frequency of strategies.

RQ 2. **What kinds of reading do learners do with RuneScape?**	2. *Qualitative Data* **Data:** • Observation data • Field notes • Document analysis	2. *Participant Observation* (Phase II: Stage 2) **Activity**: • Observed the verbalization of the five learners (Daniel, Charles, Kathy, Steve and Robin) • Observed the learners' clicking behaviours and using reading strategies • Filled in the final observation analytic framework (see Appendix P) • Filled in field notes	2. *Content and Thematic Analysis* to make data understandable for readers **How**: • Categorised the kinds of reading and reading strategies participants used (See Appendix P). • Typed and described the results in each participant. • Identified what kinds of reading they used through analysing clicking behaviours • Identified what kinds of reading strategies they used • Counted and compared the frequency of them.
RQ 1 and RQ 2	3. *Qualitative Data* **Data:** • Interview data	3. *Interviews* (Phase III) **Activity**: • Interviewed four learners (Daniel, Charles, Kathy and Steve) (see the reason in section 6.6.4) using open-ended interview questions (see Appendix G) and recorded their interviews • Interviewed an English teacher (Korean) and a head teacher (Korean) using open-ended interview questions (see Appendix H) and filled in the questionnaires as their preference, during the interview	3. *Content Analysis* to make data understandable for readers **How**: • Filled their interview answers into the sheet • Analysed interview data according to interview questions, dividing them into data from learners, the English teacher and the head teacher

6.5 Pilot Studies

Before carrying out the main research, I conducted two kinds of pilots to find out how methods of text retrieval and think aloud would suitable for my research. As discussed in section 6.4.3, my original design was to use think aloud when observing participants' playing RuneScape, so I carried out piloting about think aloud. I will keep using the term think aloud in this section. In accordance with the results of piloting, however, I prefer using the term verbal reports to the term think aloud in this thesis. The first pilot study of text retrieval was to retrieve texts in chat messaging and identify their availability within the analytical framework. The second pilot study of think aloud was to implement participants' think aloud and idenitfy whether it affected their playing.

6.5.1 The First Pilot Study

The first pilot study aimed to examine the application of retrieved texts into the text data analytical framework that I made to formulate a research design for the main research in data collection and analysis parts. The main purpose of pilot study 1 was to find out whether the framework can be suitable for and usable in my main research. Therefore, interpreting and analysing data from the pilot itself was not considered. In conducting pilot study 1, I made a modified text record form for piloting (See Appendix I) with only types of text data (common vocabulary and expressions; chat speak; emoticons; reduplication; specific terms; and other texts), which was a little different from the original framework I made for the main research (See Appendix E). I filled in each category on the form with sample texts from chat seminars in taught module EDUC 5979M (Language Learning and Teaching with ICT) on the VLE of the University of Leeds; I tried to find similar chat messaging data to which I was able to get access. The purpose of this module was distance learning for overseas masters' students. Amongst a number of sessions, I selected specifically ones from "Afternoon Main" and "Evening Main" parts on 02, February 2011 and I obtained two excerpts of them (See Appendix I). I found the appropriate data from chat messaging. Examples are as follows:

- Common vocabulary and expressions
  e.g. *contact, information, language, Good afternoon, No problem*

- Chat speak
  e.g. *Lol (Laugh out loud), How r u? (How are you?)*

- Emoticons
  e.g. *:) (smile), ;-) (wink)*

- Reduplication
  e.g. *yessss, hahahaha*

- Specific terms
  e. g. *Adobe Connect* (relating to computer chatting system)

- Other texts
  e.g. using other languages: Chinese, *Nie hao* (Hello), and Spanish, *Hola!* (Hello)

The results showed that, despite the dissimilar context, my modified analytical framework for analysing the text data in pilot study 1 was relevant, suggesting that my main analytical framework would be available for my main research for classifying, describing and interpreting text data. I therefore used the original design of text data analytical framework (See Appendix D) to conduct data collection.

6.5.2 The Second Pilot Study

The Aim of the Second Pilot Study

The purpose of the second pilot study was to identify whether piloting participants can do think aloud while playing RuneScape. If so, it aimed to compare the results of their think aloud between the sessions without and with being asked, finding to what extent and how think aloud protocol would affect their reading strategies. Depending on the results, I planned to make a decision about whether to make use of think aloud protocol or make a shift without it for my main research. I conducted observation using observation checklists and follow-up interviews.

Participants and Consent Form in the Second Pilot Study

In the second pilot study, I was unable to find appropriate participants in the UK, who were in the same Korean contexts as the main research. I therefore tried to find two Korean participants in the most similar contexts. As a convenient sampling for pilot study, I found two participants in Leeds city: one participant was a girl aged 11; another participant was a boy aged 12. They had been living in the UK for five and six years, so their contexts and English proficiency levels were different from participants in my main research in Korea. However, the purpose of pilot study 2 was not to collect the contents of think aloud data, but to focus on examining how participants' think aloud protocol influenced their playing the game and reading texts. I therefore considered them to be appropriate piloting participants. This is because they are Koreans in a similar age group to the main research (aged 9-11) and usually speak Korean at home, although speaking English at school. Participants' biographical information and backgrounds are described in Table 6.2. The names are pseudonyms.

Table 6.2 Piloting Participants' Basic Biographical Information and Backgrounds

Name	Sex	Age	Nationality	Expert language	Educational Background
Sue	Female	11	South Korean	Korean /English	came to the UK in 2005 without attending the elementary school in Korea started primary school in Year 2. At present Year 7 studying in the Grammar School at Leeds
Harry	Male	12	South Korean	Korean /English	came to the UK in 2004 without attending the elementary school in Korea started primary school in Year 1. At present Year 8 studying in the Grammar School at Leeds

Procedure and Data Collection in the Second Pilot Study

Before and during the pilot study, I considered the ethical issues about research with young participants, which will be discussed in section 6.9. I obtained the consent forms from the parents of participants because they were children (Appendix J: English version and Korean version). The second pilot study was

conducted in two phases (two days on Saturday, 2 April and Sunday, 3 April, 2011) in two phases: participant observation and follow-up interviews with open-ended questions. Audio recording was used to record their think aloud and interviews. A voice recorder was used and from there the MP3 audio files were transmitted via its USB to my laptop, in order to keep the recorded data in my research database and make it easier to keep track of the data during data analysis. Their parents elected to host the pilot study in their homes for their convenience.

Phase I

I made their RuneScape log in IDs in advance for convenience, in order to keep track of their playing records easily and extract their texts later. Before logging in, the participants were asked whether they had previous experience of playing RuneScape. Only Harry said that he tried to do it before but just a few times. They were informed what RuneScape was and how to play it using the arrow buttons and mouse. After their logging in, I observed them playing the RuneScape game as a participant observer. In the first phase, I did not mention think aloud and just I watched them playing it their own ways. In an observation sheet, I modified the preliminary observation checklist (See Appendix F) into a simple version for pilot study 2 (See Appendix K). I filled in the observation sheet for each participant while conducting the observation. Subsequent to the observation, as an interviewer, I conducted follow-up interviews with open-ended questions as follows:

Follow-up interview's open-ended questions in Phase I:

On the first day without being informed of think aloud, if they did think aloud,

Q 1-1. Did you know that you were thinking out loud?

Q 1-2. If you did it intentionally, why did you do that?

Q 1-3. To what extent and how did your think aloud affect your playing?

The reason why I conducted interviews with open-ended questions was to probe in-depth the awareness of their think aloud usage while playing RuneScape, and to explore to what extent and how think aloud would affect their playing. I selected the unstructured response mode, which gives respondents full freedom to answer

the questions, not being controlled by the interviewer (Cohen et al. 2007). When conducting interviews, every care was taken to respect individuals' right to privacy (Hewson et al. 2003).

Phase II

The main difference from Phase 1 was that they were told information about think aloud and asked to do thinking aloud, but not compulsorily. The purpose was to find whether think aloud influenced their playing and, if so, whether it distracted their playing. Like the previous day, observation and playing RuneScape were carried out for thirty minutes. With the same IDs as the previous day, participants logged in and kept playing RuneScape, following the previous day's stage. This means that RuneScape keeps the user's record and retrieves their database whenever they log in, so they do not need to play the beginning stage again. I filled in observation checklists with their think aloud data. As for Phase 2, follow-up interviews were conducted with same open-ended questions in Phase 1, adding one more question 2-4, as follows:

Follow-up interview's open-ended questions in Phase II:

On the second day after being informed of think aloud, if they did think aloud,

Q 2-1. Did you know that you were thinking out loud?

Q 2-2. If you did it intentionally, why did you do that?

Q 2-3. To what extent and how did your think aloud affect your playing?

Q 2-4. If so, was it interrupting your playing?

An important thing was that Phase 2 had the follow-up interviews with an unstructured question 2-4, which were carried out with each participant immediately following the observation, apart from the open-ended questions.

Presentation and Discussion of Findings in the Second Pilot Study

I present the findings from each piloting participant's data of the pilot study 2. I discuss them to reach my conclusion about whether think aloud protocol could be used in my main research.

Sue

Sue arrived in the UK five years ago when she was very young (age 5), so she was used to English as much as her first language, Korean. She did not use a lot of strategies to make sense of the meaning of texts. The only thing she used was "rereading" to understand the meanings of the sections of instructions, descriptions and hints, which told how to complete tasks successfully. In performing think aloud, in Phase 1 Sue did not do think aloud, only saying out loud *Eastern*. According to Sue's mother, her personality tended to be quiet and this was borne out while playing the game. As a result, no information was achieved in the first interview with Sue. In Phase 2, however, Sue was asked to do think aloud, although not compulsorily. Interestingly, she began to read aloud the texts in the sections of the instructions, descriptions and hints. When carrying out tasks smoothly, she said out loud positive expressions such as *Okay*, *Yes* and *Yes, I have*. Sometimes she spoke out loud negative expressions, such as *No* and *What?,* and expressions of direction, such as *Where am I going?* and *East*. In Phase 2, obviously Sue did think aloud and verbalised more than in Phase 1. When I asked Sue the interview question 2.2, she answered that she said aloud intentionally by my request, but it helped her to remember some information clearly, such as the direction to where she should move to do tasks. For questions 2.3 and 2.4, she answered that thinking aloud did not disrupt her playing at all; rather, it positively helped her to play.

Harry

Harry arrived in the UK six years ago when he was very young (age 5), so he also was used to English. He also used a strategy of rereading texts to understand the meanings of instructions for how to do tasks. An interesting point was that Sue repeated reading the hint section, but Harry visited the advice section. He knew where he was able to get useful information, such as in the advice section, which Sue never visited. This might be because Harry had experience of playing MMORPGs and RuneScape before, showing that his speed to move on to the next stage was quicker than Sue's. In Phase 1, Harry did think aloud more than Sue: *Where can I use it?*, *Where is my tree?* and *Let me drop it*. He said in interview 1

that he did think aloud intentionally to help himself remember the tasks. According to Harry's mother, Harry usually spoke out to communicate with his friends online whilst playing computer games or PS3 (PlayStation 3)[18]. It might be his strategy to solve the problem successfully during playing games. In Phase 2 with being requested to do think aloud, Harry also did think aloud more than in Phase 1. When carrying out tasks smoothly, he did think aloud and verbalising of positive expressions, such as *Okay* and *Yes*. He spoke out loud negative expressions, such as *No No*, *I'm dying?, What the hell?*, *Piss off* and *I don't know what to do*, and other expressions, such as *Where?*, *Where is it?*, *What is this?*, *South East* and *Run*. In the second interview, his intention of saying aloud was to help him to make a resolution to solve the problems. For questions 2.3 and 2.4, he answered that thinking aloud did not disrupt his playing at all, helping him to play very positively. He said that when he was speaking out loud, it led him to imagine better the virtual world or context of RuneScape, as if he felt involved in the real world, not the game. He added that he liked RuneScape because the text-based chat messaging system in RuneScape was similar to *Twitter*, in which he was particularly interested.

Discussion

An important discovery was that they were saying out loud, which did not mean data of think aloud. Therefore, in my main research, I renamed all data in which my participants spoke out loud "verbal reports", instead of think aloud (See section 6.4.3). As for using strategies when reading texts, they used only rereading, whilst probably normal Korean children use more strategies. As mentioned above, the purpose of pilot study 2 was to identify whether think aloud would interrupt participants' playing. My findings showed that think aloud and verbalising did not disrupt their playing, considering their positive feedback. It seemed that verbal reports would not disrupt participants' playing in my main study, in which I applied verbal reports to the observation process for collecting observation data.

[18] PlayStation 3 is the third home video game console with its unified online gaming service produced by Sony Computer Entertainment.

6.6 Main Study: Data Collection

6.6.1 Research Site

The research site is a private English institute, the same site as planned in my research design according to convenience sampling. The name of this private English institute is “World Prep School”, which is owned by Brian Choi, the head teacher and English teacher, who graduated from TESOL Master’s programme at the University of Bristol, UK. The number of enrolled students (when I was doing research) was over hundred; the range was from elementary school students to high school students. The teaching staffs consist of three Korean teachers and two native teachers. The Korean teachers taught grammar, vocabulary, reading and writing; the native speakers taught English conversation twice a week.

6.6.2 Participants

In the research deign, I built up the criteria as a purposeful sampling of participants (see section 6.4.1). With the criteria of the case, I visited the private English institute and delivered the informed consent forms to the twenty students or so in the target grades. I addressed the purpose of the study and identified whether they would take part in the study voluntarily. I found many students who were willing to participate in my research. However, some of them were unable to rearrange their schedules, so I used so-called snowball, chain, or network sampling - asking already selected participants, head teacher and teachers to recommend other participants. It was based on Burgess’s (1982) suggestion that there was another way to collect data in some depth via particular informants: ‘key informants not only provide detailed data on a particular research setting, but also provide the researcher with introductions to other informants and to other situations’ (p. 77). I finally recruited five participants, who, from their acceptance of voluntary involvement, were satisfied with the criteria of the case in my research. The detailed ethical issues in my research will be considered in section 6.8. Table 6.3 below provides the participants’ biological and research Information: name (pseudonym), gender, age/grade, age when started to learn English, English ability and interest in computer gaming.

Table 6.3 Participants' Biological and Research Information

Name	Gender	Age/Grade	Age when started to learn English	English Ability (Advanced/intermediate/low)	Interest on computer gaming (High/middle/low)
Daniel	Male	10/Grade5	Age 7	Advanced	High
Kathy	Female	11/Grade6	Age 7	Advanced	High
Steve	Male	11/Grade6	Age 8	Advanced	High (Shooting/Fighting Game)
Charles	Male	11/Grade6	Age 6	Advanced	High
Robin	Male	11/Grade6	Age 6	Advanced	High

6.6.3 Research Schedule and Attendance Record

In July, I met the head teacher and an English teacher, who are both Koreans, to ask about selecting participants. The research started from the middle of August in 2011. After recruiting the participants, I met them to organise the timetable according to each participant's schedule. I finally sorted out the research schedule on every Tuesday and Thursday and initiated the research on 23rd August 2011 with the pre-vocabulary test. Table 6.4 below presents the research schedule, showing what action the participants took and particular points to mention in each session.

Table 6.4 Research Schedule

No	Date	Action	Particular points
1	18.08.2011 (Thu)	First meeting and arranging schedules with voluntary participants	
2	23.08.2011 (Tue)	Taking pre-vocabulary test	
3	25.08.2011 (Thu)	Implementation 1	Ask participants what kind of dictionary they can and will use
4	30.08.2011 (Tue)	Implementation 2	Daniel absent Robin's recording partially missed
5	01.09.2011 (Thu)	Implementation 3	Robin restart with new ID
6	06.09.2011 (Tue)	Implementation 4	Suddenly wireless internet was unstable so used wire connection in the computer room (only with Charles and Robin)
7	08.09.2011 (Thu)	Implementation 5	13.09.11 (Tue) skipped due to Korean Thanksgiving Day

8	15.09.2011 (Thu)	Implementation 6	Robin only 13’24’’ recording (4-1)
9	20.09.2011 (Tue)	Implementation 7	Daniel absent Robin’s 16’36’’ recording (4-2) + Robin’s 5th time playing
10	22.09.2011 (Thu)	Implementation 8	Everyone was on time, and everything was fine.
11	27.09.2011 (Tue)		I was absent of illness.
12	29.09.2011 (Thu)	Implementation 9	Suddenly RuneScape server (in Kathy and Steve’s gameplaying) is down but resumed.
13	04.10.2011 (Tue)	Implementation 10	Kathy is unable to continue due to extra class at school so quit participating (Drop out) Robin absent
14	06.10.2011 (Thu)	Implementation 11	Daniel conducted after class at 6.30. Charles absent
15	11.10.2011 (Tue)	Implementation 12	Daniel conducted twice (he came late): first one at 3.30-3.50 (20”) second one at 6.30-6.40 (10”)
16	13.10.2011 (Thu)	Implementation 13	Daniel’s recording part missed. Robin absent (Drop out)
17	18.10.2011 (Tue)	Implementation 14	Only Daniel, Charles, Steve
18	20.10.2011 (Thu)	Implementation 15	Only Daniel
19	25.10.2011(Tue)	Implementation 16	Charles’ recording 10’ min (session15) unconducted (connection lost but unconnected)
20	27.10.2011(Thu)	Interview & Post-Voca Test	Daniel, Charles, Steve *Kathy (only interview) *Robin (sent email with interview questions)

The original plan consisted of 16 sessions in total. However, Kathy dropped out of participation at the 10th session, due to failure in sorting out a schedule problem. Robin quit the private institute without informing the institute, so I considered that he had dropped out at the 11th session. Only Steve played RuneScape for 15 sessions. Charles failed to complete the 15th session due to an Internet connection problem. Daniel conducted 14 sessions in total. Due to participants’ school exams, they were unable to spare more time for my research. I therefore decided to stop implementing further sessions and use the data from Kathy’s nine, Robin’s ten, Daniel’s fourteen, Charles’s fourteen and Steve’s fourteen sessions in total. Table 6.5 below shows each participant’s attendance record.

Table 6.5 Participants' Attenance Record

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	18/08/11 (Thu)	23/08/11 (Tue)	25/08/11 (Thu)	30/08/11 (Tue)	01/09/11 (Thu)	06/09/11 (Tue)	08/09/11 (Thu)	15/09/11 (Thu)	20/09/11 (Tue)	22/09/11 (Thu)	29/09/11 (Thu)	04/10/11 (Tue)	06/10/11 (Thu)	11/10/11 (Tue)	13/10/11 (Thu)	18/10/11 (Tue)	20/10/11 (Thu)	25/10/11 (Tue)	27/10/11 (Thu)
Daniel	First meeting & arranging schedule	Pre-vocabulary Test	1	Absent	2	3	4	5	Absent	6	7	8	9	10	11	12	13	14	Voca Test & Interview
Kathy			1	2	3	4	5	6	7	8	9	Unable to continue so quit participating							
Steve			1	2	3	4	5	6	7	8	9	Absent	10	11	12	13	14	Extra 15	Voca Test & Interview
Charles			1	2	3	4	5	6	7	8	9	10	Absent	11	12	13	14	Extra 15	Voca Test & Interview
Robin			Recording (30/08) fail so restart		1	2	3	4 -1 (13' 24"recording)	4-2 & 5	6	7	8	9	10	Absent	Absent	Drop out without informing		

6.6.4 Progression of Data Collection

I conducted data collection for the main research through the same three phases of research design (see section 6.4 and Figure 6.1). The only difference was that in the research design, I intended training the participants in typing to ensure they were used to do it; however, I found that they were already familiar with the English keyboard, so I did not need to train them.

Phase One: Sampling and Vocabulary Pre-Test (Vocabulary Test Data)

After recruiting the participants to take part in my research, I conducted pre-vocabulary tests with each participant using the vocabulary size test of Nation and Beglar (2007), in the Korean version.

Phase Two: Intervention (Text and Observation Data)

After conducting the vocabulary pre-test, I initiated the intervention so that each participant was playing RuneScape to generate text and observation data. I conducted participant observation, recorded each participant's session of playing RuneScape using a ZD Soft screen recorder, and stored all of the participants' recording files. Each session lasted for 30 minutes and there were between 9 to 14 sessions, according to the participants' schedules (see section 6.6.3). During each session, they logged into RuneScape and carried out playing for 30 minutes, going up the levels by doing tasks. When they finished the session and logged off the RuneScape, in the next session they were able to log in and proceed to the next stage without repeating the previous playing, which was controlled by the RuneScape program itself. As protection of external variables could take place during this phase, each participant was not permitted to extend their learning by entering and playing RuneScape at home. After completing each session, I needed to obtain the text data, so I tracked and retrieved them from each participant's recordings, which stored the whole processing of the RuneScape playing, filling in the same preliminary text data analytical framework (see Appendix E) that I had constructed in research design. In participant observation, I observed the participants' playing and filled in the preliminary observation checklists (see Appendix E), which I built up in research. After observation, I recorded the field notes (see Appendix F) to gather supplementary data.

Phase Three: Vocabulary Post-Test and Interview (Test and Interview Data)

After the intervention phase, I conducted a vocabulary post-test (see Appendix D) to three participants, because Kathy and Robin were not available as noted in section 6.6.3. I used the same vocabulary test as the pre-test, because I intended to compare the variation of participants' vocabulary size before and after research. After completing the vocabulary post-test, I conducted interviews with four learners (Daniel, Charles, Kathy and Steve), the English teacher and the head teacher. Among five learners in my research, I conducted interviews with only four participants because Robin quit the private school before finishing this research. I used open-ended interview questions, which I prepared in advance. The interview

questions for the learners are in Appendix G (English version and Korean version); and for the English teacher and the head teacher in Appendix H (English version and Korean version). I recorded the learners' interviews: whereas, the English teacher and the head teacher filled in the interview questionnaires during the interview with me, as their preference.

6.7 Main Study: Data Analysis

6.7.1 Vocabulary Test Data Analysis

I marked the five pre- and three post-tests. I was able to compare only the three results of the tests from three participants (Daniel, Charles and Steve). I found that only Charles showed a higher score in post-test than pre-test; Daniel and Steve showed the opposite results. In my research design, I conjectured that their scores would be at least the same or higher than before if they knew the answers and were not marking randomly; however, their opposite results suggested to me that they marked the answer sheets randomly for some questions. I concluded therefore that their results did not show me useful data, so I did not use this quantitative data in the chapters on findings and discussion.

6.7.2 Text Data Analysis

Before beginning the discussion of answering my research questions, I would like to point out and explain an unpredicted issue about the "sites" in which my participants visited on the Internet. The premise of my research design was that participants would go into the various sites on the Internet to search for information or tips on completing tasks in RuneScape, such as FAQs and Game Guide, Discussion boards or Forums, Communities, Cheat Websites and RuneScape interface. I expected that they would encounter diverse language from those sites. However, participants never explored other sites, but simply stayed in the RuneScape interface. I can envisage one possible reason: the duration of the research participation. My participants carried out my research for 30 minutes during 9 to 14 sessions (see section 6.6.4). When completing the entire sessions,

some completed merely the introductory stage tasks and the others made a little progress over the introductory stage. The tasks they completed were in the initial stage of the main stage and aimed at training players to get used to gaming. Their goal was likely to complete the introductory tasks first. I argue therefore that were they able to have more sessions to become used to RuneScape gaming, they could begin their adventure to explore a range of sites to get hints or advice, in order to go up the levels quickly or skip the levels, as more experienced players do. I concluded that their visiting places on the Internet were limited to the scope of the RuneScape interface and my text data were obtained only from there. According to the unpredicted data, I modified the preliminary text data analytical framework (see Appendix D) into the final framework (see Appendix O), which I filled in with retrieved texts from the recording files. While analysing my text data, I realised that I needed to revise the text types. I divided a category of common vocabulary and expressions into two separate categories of generally-used vocabulary and lexical phrases; the rest of the categories were the same. The data of common vocabulary and expressions were too much to deal with as one category: I categorised a single word as generally-used vocabulary and single units with multi-words as lexical phrases. Based on the revision, my final categories of text data were generally-used vocabulary; lexical phrases; RuneScape vernacular; lexis specific to computer games; chat speak; emoticons; and reduplication. Specifically, categories and examples of generally-used vocabulary will be discussed in Chapter 7. Categories of lexical phrases were discussed in Chapter 3 and examples will be presented in Chapter 7.

6.7.3 Observation Data Analysis

In observing participants' playing and filling in the preliminary observation checklists (See Appendix E), I found that all participants made use of vocabulary and reading strategies when encountering unknown words and texts. However, the preliminary observation framework before my fieldwork showed a slight difference from the real observation data after fieldwork. Some sections were deleted because I found that participants did not take the actions that I had anticipated. Through the revising process, I made my final observation analytical framework

(See Appendix P), the name of which has been changed from the preliminary observation checklists (See Appendix E).

6.7.4 Interview Data Analysis

The aim of interview was to identify the perceptions of learners and teachers about English language learning and teaching in the school; using computer games as a tool of learning English; and playing RuneScape for learning English for Korean young learners. The answers from the informants were generally simple, although I tried to elicit more in-depth answers from them. The responses were in Korean, so I have translated Korean into English. I analysed their answers, according to the interview questions (see Chapter 9).

6.8 Ethical considerations

I consider the ethical issues during my research and examine certain points from the perspectives of ethical considerations. My research was implemented, following the ethical guidelines from the British Educational Research Association (BERA) of 1992 and revised guidelines of 2004. It followed an ethic of respect for persons, knowledge, democratic values and the quality of educational research.

6.8.1 Ethical Issues

Research with Young Participants

I conducted my research with young participants. I considered therefore specific aspects about them in the pilots and in the main research. Before initiating the research, I needed to get permission from their parents. This was because participants were elementary school students and I needed to get approval for access to RuneScape accounts, in which children were allowed to play RuneScape with the approval of their parents. I provided the guidelines and information about RuneScape and the operating method of this game. During the research process, I carried out the research for 30 minutes in each session, taking into account their concentration span and their study.

Harm

The issue of harm can be raised in my research. I informed in advance the participants and their parents about how to keep personal information in order to prevent safety risks when disclosing any type of information: for example, during chatting, if someone asks for personal details or breaks any rules, there is a report abuse button on the right corner of the playing screen. The security problem can be addressed in online research by using passwords and privacy settings. Participants can be sensitive when their personal information is revealed and when they perceive that they are evaluated in some way by the researcher. They can be stressed and frustrated when they are losing confidence at playing RuneScape: for example, when they cannot find a successful way to proceed to the next level. Therefore, every care was taken to secure against harmful situations and, fortunately, the predicted harmful situations never occurred during my fieldwork.

Ethical Regulation

I sought formal ethical approval for this project from the University of Leeds Social Sciences Research Ethics Committee. The letter is included in Appendix Q. In this regard, I sent the completed application forms and consent forms to the committee members at the university. After a committee meeting, they sent the approval letter to confirm I could initiate my research.

6.8.2 Consent Form, Confidentiality and Anonymity

Prior to my research getting underway, I requested permission from the head teacher (the owner) and the English teacher to carry out the research and get access to students for data collection. The letter for permission included an account of the purpose of the study, fieldwork timetable and research procedures. Although the permission to conduct my research had already been gained by the head teacher verbally, I obtained the consent form from him (see Appendix L). Before starting my research, I gained the consent forms (see Appendix M), which included a detailed explanation regarding the purpose and structure of the research, from the participants' parents who were responsible for their children. Participants were informed of the purpose of the study, and how they would

participate in it, by the consent form (see Appendix N), which stated that their participation in the study was voluntary and assured them of their right to withdraw from the research at any time. After the research, steps were taken to ensure that confidentiality of the participants' identities and the data would be protected in the future. Their anonymity would be protected in any publication of findings and any future publication regarding this study. My participants were using character names or IDs during their involvement in RuneScape. They could be anonymous, although the text data was on the Internet. Participants were assured that the data would be handled confidentially, not being disclosed to their teachers or any other person in the surroundings.

6.8.3 My Role as a Researcher and Observer

In this research, I played key roles as a researcher and participant observer. As a researcher, I should be aware of the discussed ethical issues and owe a duty to implement responsibility in the process of data collection, analysis and dissemination (Blaxter et al. 2001). As a participant observer, I tried to keep rapport between the participants and me. My responses towards them in the research process tried to keep neutral and rational, not to break rapport between us.

6.9 Summary

This chapter has examined the aspects of the research methodology, addressing research aims, questions, and methodological frameworks. It has then discussed the rationale to explain why I selected a case study approach. It has then described research design, pilot studies and how the data was collected and analysed. It has finally dealt with the ethical considerations within my research. The next chapter discusses the learning context in RuneScape gameplay, presenting examples with combination of screenshots and commentary and findings about language in RuneScape, based on the text data.

Chapter 7 LEARNING CONTEXT: RUNESCAPE GAMEPLAY

7.1 Introduction

The readers, who are not familiar with MMORPGs and RuneScape, may find it hard to understand the process of gameplay, in which the learning occurs. The purpose of this chapter is to explain the context that the RuneScape game provides for learning and the language that occurs in RuneScape, presenting connections between the activities in the game, texts on the screen, behaviours and strategies. Among the five participants' gameplay, I selected Robin's game as an example because he showed more varied behaviours and used more strategies than the others. I present examples of his game play showing a combination of screen shots and commentary the sessions unfolding, displaying how to get data. A flow chart is used to present screen shots that he came across step-by-step, showing the tasks that he completed. This will provide detail about the game itself and the language he encountered. In this chapter, I first examine the general overview of RuneScape gameplay. I then display specific examples of Robin's. I finally present the language data that all participants encountered through their game plays, according to the classification of my text data: generally-used vocabulary, fixed phrases, RuneScape vernacular, terms specific to computer games, chat speak, emoticons and reduplication. I have described lexical phrases in the literature review (see Chapter 3) and I will rename it as fixed phrases in section 7.4.2.

7.2 Overview of RuneScape Gameplay

Before players start playing RuneScape, they need to sign up once and log in every time with RuneScape ID and password. They customise their own character according to their own preferences and initiate playing the game by selecting a task. They can select a task every time finishing the previous task: When they solve the task, they choose another task. RuneScape consists of a great number of tasks. According to which task they select, the direction of their gameplay could be

different and varied. The playing is individualised and each player will follow a different route through the game. The process of their figuring out tasks can be also personalised, according to their selecting which options of NPCs (Non-Player Characters), controlled by RuneScape program, suggest. For example, Figure 6.1 shows a NPC Xenia's explanation about her situation: *There are three of them, and I'm not as young as I was the last time I was here. I don't want to go down there without backup*, in the task of escort duty. In Figure 6.2, Xenia then suggested the five options for players to select: '*I'll help you*'; '*I need to know more before I help you*'; '*Who are you?*'; '*How did you know who I am?*'; '*Sorry, I've got to go*'. The five options provide different missions to be completed and players can choose one of these options. Based on their choices, the direction and flow of the gameplay could be diverse. In the case of Robin, he selected the option of 'I'll help you'.

Figure 7.1 NPC Xenia's Explanation

Figure 7.2 NPC Xenia's Suggested Options

The game proceeds as the player solves tasks. Whilst playing, if players want, they can chat with other players by typing the texts what they want in Chat Dialogue Box. They can ask for help to more experienced players or give hints to novice players; they can chat for just communicating with each other. I will illustrate how Robin was interacting with game and other players in the next section.

7.3 Specific Example: Robin

7.3.1 Starting the Game and First Task

After logging into RuneScape, a player's first mission is to select a character. Robin selected a male section and clicked all characters to identify their jobs.

He did not know what 'crafter' meant, so he searched for the word in the Yahoo online dictionary[19].

However, there was no entry for the word 'crafter'. He searched for the shorter, inflectionally related word, 'craft'. He found 'craft' and guessed the meaning of 'crafter' from the meaning of craft by searching for substitutable vocabulary. He used his knowledge of morphemes: -er usually means somebody who performs, e.g. play – player. This is because, although he knew that 'crafter' was a kind of job, he did not know what 'craft' meant.

[19] Yahoo Korea Online Dictionary, http://kr.dic.yahoo.com/

After examining characters, he chose a ‘mage’ and customised his own character, selecting hair style, skin colour, torso, legs, footwear and facial hair.

He selected ‘Night 2748’ as his character name among the recommended names after his chosen name ‘marin’ was not available.

He started his first task among 44 tasks in the Introductory Tasks.

He selected ‘Talk to Explorer Jack’ for his first task, like other participants.

In order to gain information how to begin and complete the task, he read the texts in the sections of Description, Hints and Dialogue Box with NPC Explorer Jack. The texts consist of generally-used vocabulary (e.g. *house*, *name*), RuneScape vernacular (e.g. *Lumbridge*) and terms specific to computer games (e.g. *left-click*).

Dialogue Box with NPC (Non-Player Character)

The mission of the first task was to simply go to NPC Explorer Jack's home and start a conversation with him about the task. Robin started to read the texts carefully in Dialogue Box with Explorer Jack and clicked after a while enough to read them. In the text of Dialogue Box, it contained generally-used vocabulary (e.g. *earn*, *money*) and institutionalised expressions (e.g. *Good luck*!).

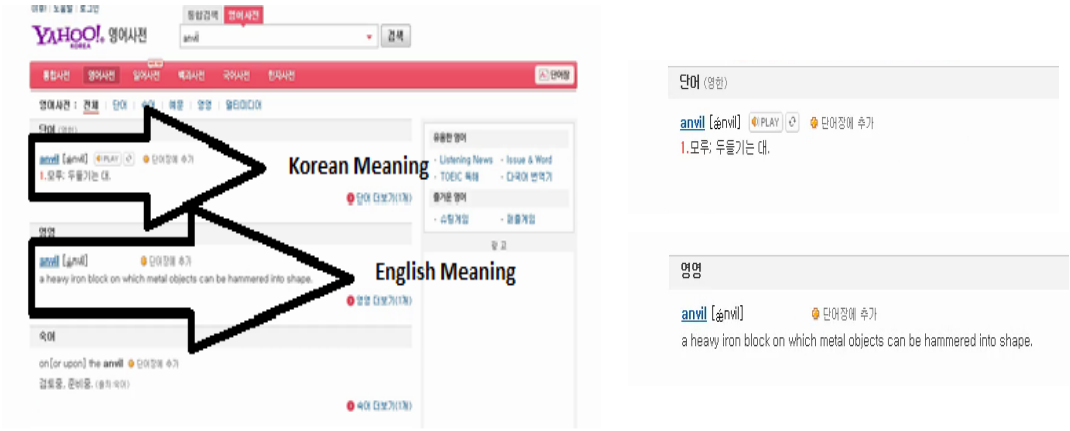
This was a simple task. Although normally NPCs provide options, NPC Explorer Jack did not suggest any options for Robin to choose. He completed this task by simply reading the conversation text and clicking the button to continue the next step. When completing the tasks, players could usually get rewards, such as obtaining items or money and levelling-up. In this task, the task completion itself was a reward to be able to select a new task. The time he completed this task was 1

minute and 2 seconds. Depending on the difficulty of the tasks, usually it takes shorter or longer.

7.3.2 Task: Cutting Edge Technology

After this, Robin started a new task, ‘Cutting Edge Technology’. The mission was to make a dagger with a bronze bar at the anvil. When Robin was reading the sentence in the Hints section: *Get a hammer (There is a crateful in the Lumbridge smithy, or a general store will provide one free)*, he searched for the meaning of unknown word ‘provide’ in Korean in Yahoo online dictionary. After finding the Korean meaning of ‘provide’, he read aloud its meaning in Korean: *‘kong-geup-ha-da’*. He found its correct meaning. He figured out the sentence meaning correctly because he went to the general store to obtain a free hammer later.

He read the next sentence: '*Find an anvil (there is one in the north of Lumbridge)*' and looked up the word, 'anvil' in Yahoo online dictionary. He read aloud the right meaning of 'anvil' in Korean: *'mo-ru'*. Nonetheless, he was unable to understand its Korean meaning as the word 'mo-ru' is very difficult one even for Korean adults. He examined its English meaning next to Korean meaning in the dictionary, pronouncing *'iron block'* aloud in English. With anvil's English meaning, he guessed its meaning, asking himself that '*Does anvil mean a block which is battered? Ah, something that Smith is beating! Where is the anvil? Is this? Hope that this is anvil*'.



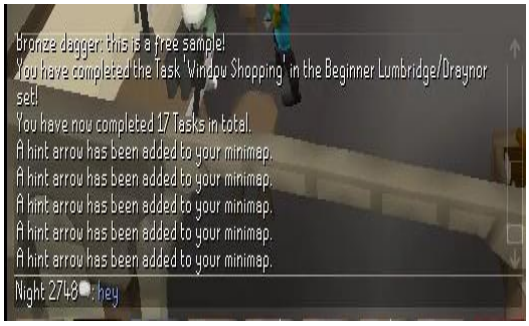
After reading the Hints section, he asked me when guessing the action of the task: '*Is this task to make a bar, right*?' I refused to answer the question, politely smiling and shaking my head. He then read aloud the sentence in English: '*… general store will provide one (hammer) free*' in the Hints section. He went to the general store to get a free hammer and met an NPC shopkeeper. In the Dialogue Box, the shopkeeper asked to him, 'Can I help you at all?' and suggested the three options for Robin to choose: '*Yes, please. What are you selling*?'; '*How should I use your shop*?'; and '*No, thanks*'. Robin selected the first option of 'Yes, please. What are you selling?' and obtained the hammer from the shopkeeper. Here, there are some institutionalised expressions: e.g. *Can I help you at all?*; *Yes, please*; and *No, thanks*. I have described these in the literature review in Chapter 3 and I will present the categories and examples of my data in Chapter 7.

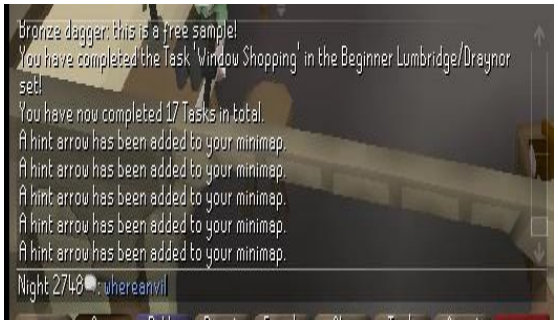
Although Robin took the hammer and found the location of the anvil, he was unable to figure out what he had to do in front of the anvil. He therefore read the sentences in the Hints section again and again, clicking up and down several times.

Robin endeavoured to understand the instruction, by reading it repeatedly. Nonetheless, he failed to figure it out. I had the same difficulty in doing this task when I had played the game before implementing this research. This was because I was unfamiliar with the detail knowledge about what blacksmiths did. It showed that having background knowledge might have been useful when reading the texts in the game. He attempted to talk to other players to obtain a clue at the same location. He began to chat with other players, by typing English texts in the Chat Dialogue Box.

Chat Dialogue Box

Robin (ID: Night 2748) typed ‘hey’ and ‘whereanvil’ in the typing box to ask the location of an anvil. The colour of the typed words was blue.





Robin found the anvil and actively continued typing English text: ‘How to use anvil???’, which was popping up next to the Robin’s character in yellow colour. He asked other players how to use the anvil, but nobody replied.

There was a queue for the anvil and Robin was waiting for his turn. At that time, someone cut in line. He expressed his annoyance, typing ‘Im first’ and ‘Why are you staying here????’ He used a question mark repeatedly (????). Reduplication is usually used to express his/her intention more exaggeratedly. He has not got any replies this time either. I will deal with reduplication in the following section 7.4.3.

⇩

A front player has been staying for a long time. Robin began to type and chat with the player: 'Hi I'm korean'. He introduced himself first and then he asked the player 'Where are you from??? Please say'. However, the player did not give any replies. Although Robin attempted to make conversation with the player, it was not so successful.

⇩

When it was Robin's turn, he right-clicked the picture of hammer and selected the action to use it for the anvil. However, nothing happened and he tried several times. Although unsuccessful trials were repeated, he did not give up solving this task. He read aloud the sentence in English popping up repeatedly in Chat window: '*To forge items use the metal you wish to work with the anvil*'.

⇩

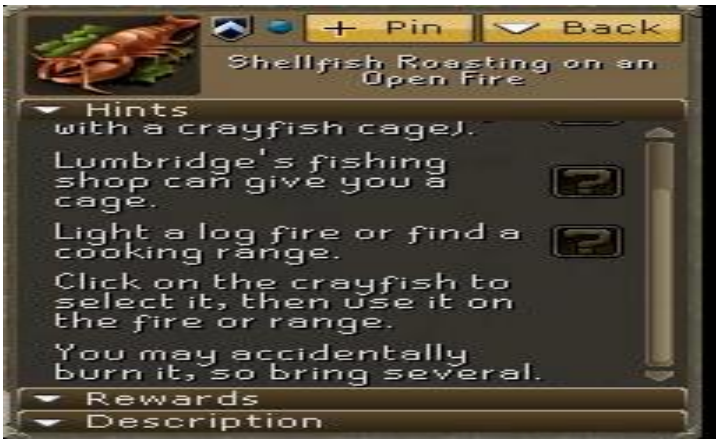
He then searched for the word 'forge' in the Yahoo online dictionary and read its meaning aloud in Korean: '*yong-kwang-ro*'. Although 'forge' was used for the verb in the sentence, he read the meaning of the noun as a 'furnace'. He also looked up the word 'metal' in the dictionary.

This time, Robin right-clicked the bronze bar picture, instead of selecting the hammer picture that he had done repeatedly. When the picture list popped up, he clicked the dagger picture. Finally he completed the task. This showed that he successfully figured out the sentence: '*To forge items use the metal you wish to work with the anvil*'. It took 19 minutes 53 seconds for him to finish, which was much longer than the completion time of the first task.

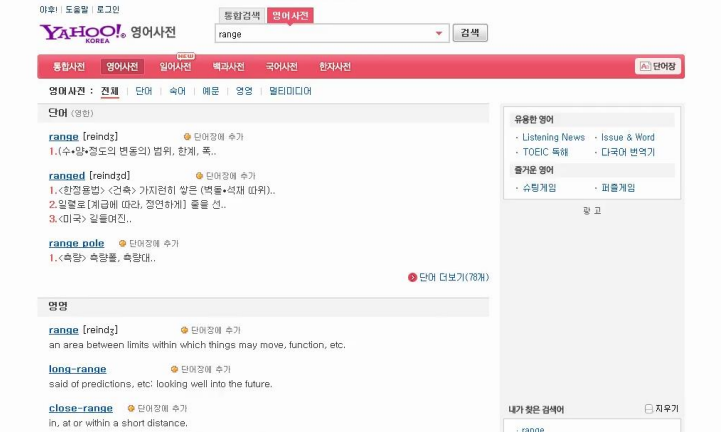
In this task, he had used his reading skills and vocabulary knowledge to understand the instruction sentences and guess the vocabulary meanings. After completing the task, he was given rewards, such as gold coins and items which he obtained when carrying out the task.

7.3.3 Task: Shellfish Roasting on an Open Fire

Robin then selected another new task, 'Shellfish Roasting on an Open Fire'. Its mission was to cook a crayfish on the fire. Through completing a few tasks, he seemed to realise that the Hints section was important to obtain information how to work out a task because he started to read the Hints section first. When he was reading the Hints section, he read aloud a sentence in English: '*Click on the crayfish to select it, then use it on the fire or range*.' He then attempted to translate aloud the latter sentence of 'use it on the fire' into Korean: *'Sa-yong-ha-ra bul-wi-ro',* whose meaning was that 'Use. On the fire' in English. Although he already knew each word meaning, he translate it aloud.



He read the texts in the Hints section carefully, indicating the behaviour of clicking after a while enough to read all text thoroughly. He then searched for the word ‘range’ in the Yahoo online dictionary.



When he needed a log to light a fire to cook the crayfish, he cut some logs. When he found the sentence informing that his woodcutting level was advanced after cutting some logs, he exclaimed with delight in Korean: its English translation was that ‘*Wow, cutting trees was also a type of levels!*’ He cut logs unintentionally, but found that cutting a log was a kind of level.

Although he attempted to cook the crayfish on the log fire, he burnt them several times. He then read the sentences in the Hints section again, in order to identify what his problem was, by moving the sidebar up and down several times. He used

a rereading strategy to comprehend the meanings of the sentences. Actually, his method was the correct one, but he kept failing. Through repeating the same method, he finally cooked the crayfish successfully and finished the task. It took 13 minutes 54 seconds because he spent a lot of time burning crayfish.

Drawing on his reading and vocabulary skills and strategies, he found the correct way to cook crayfish on the fire and completed the task.

7.4 Language of RuneScape

The section examines to what extent RuneScape would consist of English vocabulary and what language players encountered in RuneScape. The process of making final categories of my text data was explained in section 6.7.2. The categories are shown in Figure 7.3.

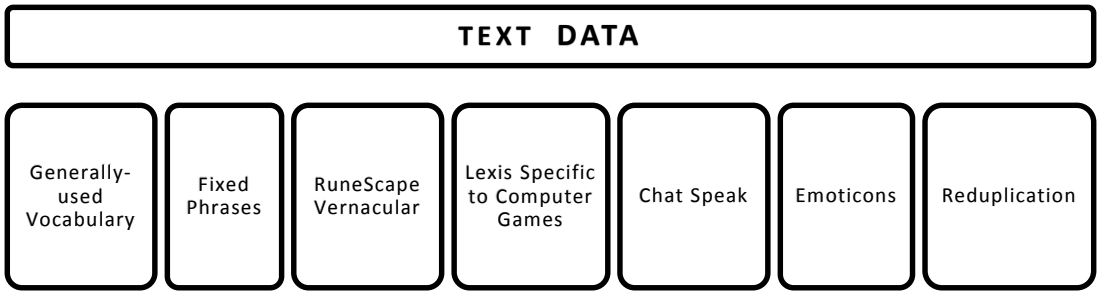


Figure 7.3 Categories of Text Data

7.4.1 Generally-used Vocabulary

The first category of the text data was generally-used vocabulary. Participants encountered a great deal of vocabulary whilst carrying out tasks or quests in RuneScape. The amount of single word data was too much to put in here so I realised that I needed to classify them into categories. In the beginning, I attempted to get help for making categories from the Korean-based classification for generally-used vocabulary. First, there are 800 basic English vocabulary items in the syllabus for elementary school students designated by the Ministry of Education, Science and Technology in Korea and the list was in alphabetical order. Second, there are paper English dictionaries for young learners on the market but most of them are simple with pictures, and only a few categories. This is not enough to cover all of my generally-used vocabulary data. Third, the Korean market offers electronic and online dictionaries for Korean children but English vocabulary can be searched by entering English spellings without categories. Last, websites for Korean children's English learning provide just a few topics with pictures for vocabulary learning so they are not sufficient for my context. For these reasons, the Korean-based resources were inappropriate for making categories with my data. Therefore, I searched for UK-based resources to provide a variety of topics or themes that have popularity in Korea. Finally, I found books published by the UK-based Cambridge University Press: English Vocabulary in Use (Elementary) by Michael McCarthy and Felicity O'Dell (1999), English Vocabulary in Use (Pre-intermediate & intermediate) by Stuart Redman (2003) and English Vocabulary in Use (Advanced) by Michael McCarthy and Felicity O'Dell (2002). However, I was unable to find a suitable classification of generally-used vocabulary for my context. Therefore, with reference to the applicable classification from the books and the

obtained text data, I made a new classification. I classified the three categories of generally-used vocabulary data into semantic fields and syntactic fields. In semantic fields, I divided them into the sub-categories of people, people life and world around us. In syntactic fields, I classified them into the sub-categories of noun, verb, adjective, adverb and interrogative and conjunction. Figure 7.4 below presents the categories and their sub-categories of generally-used vocabulary of text data.

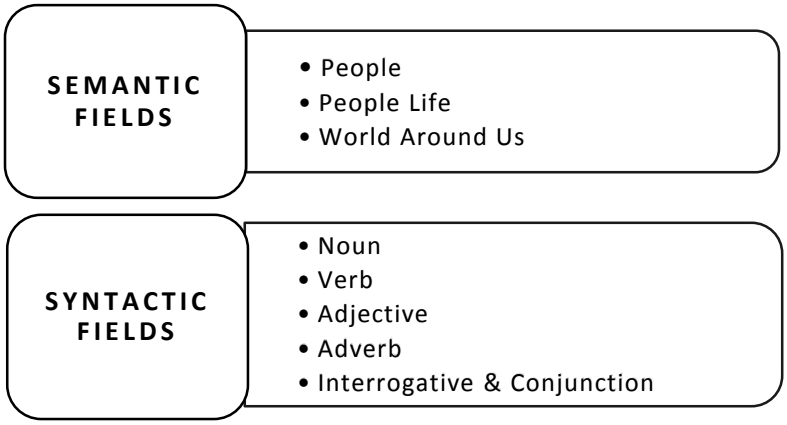


Figure 7.4 Categories of Generally-used Vocabulary in Text Data

Classification of Semantic Fields

I classified the semantic categories of people, people life and world around us into sub-categories as follows:

- People: human body, health and illness, human relationship, human feelings, human actions, jobs and actors, describing people and talking about people and clothing and fashion
- People life: house and housing, cooking and food, work and workplace, shops and shopping, places and buildings, transportation and travel and outdoor recreation

- World around us: objects, notional concepts, animals and creatures and natural environments and weather

Figure 7.5 below shows the sub-categories of semantic fields in generally-used vocabulary in the text data. As the categories of people, people life and world

around us are related to each other, I presented the type of graphic as a Venn diagram to convey the interconnected relationships between them.

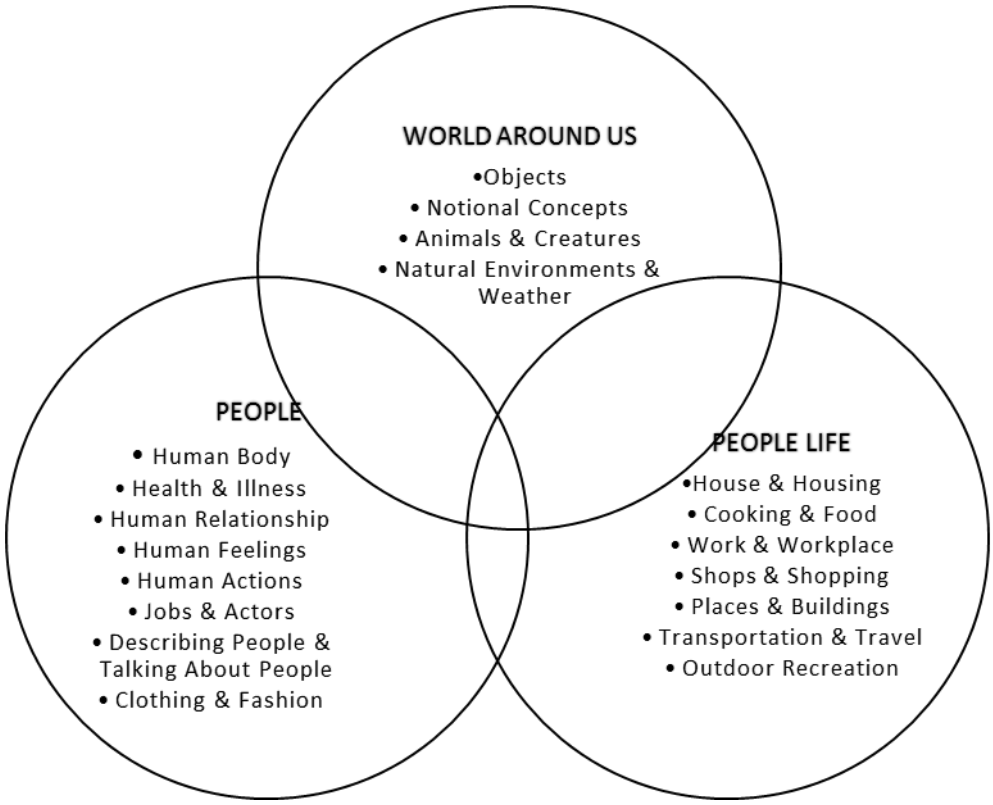


Figure 7.5 Categories of Semantic Fields in Generally-used Vocabulary

Examples of Semantic and Syntactic Fields

The data is too much so I present the full examples in each field in Appendix R.

Discussion

An issue I would like to mention is the amount of vocabulary encountered in RuneScape. Participants carried out only the introductory tasks in RuneScape during 9 to 14 sessions, but the amount of vocabulary data was very large. I assume that if Korean young learners are able to keep playing RuneScape, they will encounter a great number of generally-used vocabulary items. Given that they encounter vocabulary repeatedly, it is possible that they get more opportunities to be exposed to vocabulary than in the classroom, because of the difficulty of teaching an adequate amount of vocabulary in limited class time with large sizes

and mixed abilities. I suggest therefore that the process of playing RuneScape enables Korean young learners to encounter a great amount of generally-used vocabulary.

In the Korean context, beginners generally start to learn the basic level vocabulary in relation to themes or topics: for example, the family, colours, animals, jobs, the body, clothes, food, houses, the weather, the seasons and so on. It is usual that the textbooks or dictionaries in the private and public sectors, and online websites for Korean children's English learning, provide these kinds of topics for vocabulary learning. Their purpose seems to be to help the children's vocabulary development by suggesting the same categories of topics. To determine applicability to the Korean context, the topics and vocabulary examples were selected from semantic fields in my findings. Choosing the examples was based on the basic level of vocabulary list for elementary school students recommended by the Ministry of Education, Science and Technology in Korea. It was also based on my intuition from teaching experience as an English instructor in the private institutes for several years in Korea. The topics and examples selected from the RuneScape data are as follows:

- **Body**: *head leg foot face hand eye arm limb stomach fist body hair skin*
- **Family and People**: *father brother sister children family boy woman man men lady gentleman people friend*
- **Jobs & Actors**: *farmer cook musician worker player guard fighter student banker doctor king*
- **Food:** *onion potato cabbage milk mushroom meat beef apple tea egg cake fork bread*
- **Animals:** *goat pet cow fish sheep snake duck rat chicken spider dog fly bat frog*
- **Colour***: white red green blue black brown*

Regarding syntactic fields, those are stressed in the English classroom when Korean students start learning grammar. I selected the applicable parts of speech and their examples for Korean young learners from RuneScape data (See section 7.2.4) below. I referred to the basic level of vocabulary list for elementary school students and my intuition based on teaching experience.

- **NOUN:** *god everything order try care place music speed guide birthday page line*
- **VERB:** *cover become fall guess plan try like forget have sound want start check break*
- **ADJECTIVE:** *better longer wonderful other strange welcome helpful able ready some*
- **ADVERB:** *ago very even again around anyway maybe alone together really please*
- **INTERROGATIVE AND CONJUNCTION:** *which after if when who what how why where*

Generally-used vocabulary in semantic and syntactic fields from RuneScape data is involved in the list of vocabulary recommended for Korean elementary school students. It seems that playing RuneScape could be another approach to exposing them to vocabulary, offering opportunities to encounter the vocabulary that they usually learn in the English classroom. It is important to get opportunities for repeated exposure (Gu and John's 1996; Nation 2001; Schmitt 1997; 2010), and this is a way of "recycling". Miles and Kwon (2008) argue that 'CALL (Computer-Assisted Language Learning) is increasingly seen as an attractive option for learning', because of 'spaced repetition', 'the large amount of vocabulary that language students need to learn and the limited amount of time available in the classroom' (p. 199). Through RuneScape, I argue that they learn extra vocabulary, and they also get reinforcement of the vocabulary they have learned in class. It may also have additional value because it is in a meaningful context, and almost certainly one that is very different from that used in the classroom.

7.4.2 Fixed phrases

Renaming of Fixed Phrases

After fieldwork, I retrieved the lexical phrases to be encountered by participants. I input them into the final text data analytical framework (See Appendix O). During the process of data analysis, however, I found that RuneScape consisted of single words and single units with several words. Initially, I named the data lexical phrases (Nattinger and DeCarrico 1992), but I will call them "fixed phrases" because lexical phrases includes fixed and unfixed phrases and the range of unfixed lexical phrases is too wide to cover in this study. For example, fixed phrase of *make money* means "*earn*" money, not "*forge*" money; but if we substitute nouns instead of money, we can get a number of unfixed phrases such as *make a table* or *make a cake,* in which *make* means "produce". I therefore put a narrow focus on fixed phrases rather than lexical phrases. My final classification of fixed phrases was: polywords, phrasal verbs and institutionalised expressions with sub-categories (see section 3.2.2).

Examples of Fixed Phrases

To identify the examples of fixed phrases, I used the tool "Online WordNet Search - 3.1" on the website of WordNet®[20] which is 'a large lexical database of English … Nouns, verbs, adjectives and adverbs are grouped into sets of cognitive synonyms (synsets), each expressing a distinct concept ... Synsets are interlinked by means of conceptual-semantic and lexical relations' (Fellbaum 2006: 665). To verify the examples of prepositional phrasal verbs, particle phrasal verbs and particle-prepositional phrasal verbs in the category of phrasal verbs, I used the Oxford Phrasal Verbs Dictionary for learners of English (2001) by Oxford University Press. Concerning the verification for the rest of the examples, I referred to the definitions of the multi-word verbs, delexical verbs and institutionalised expressions. The full examples are presented in Appendix S.

Discussion

Lewis (2002b) suggests that it is important for students to acquire 'the ability to produce lexical phrases as unanalysed wholes or *chunk*' (p. 95), stressing that they

[20] Online WordNet Search - 3.1 from WordNet®: http://wordnetweb.princeton.edu/perl/webwn

'need to be made more aware of lexis, and helped to identify, practise and record lexis in the most efficient and helpful ways' (p. 104). Read (2000: 20-21) claims that phrasal verbs can cause 'great difficulty for second language learners because the whole unit has a meaning that cannot be worked out just from knowing what the individual words mean' (Read 2000: 20-21). EFL learners tend to lack both awareness of collocations and collocation competence in English (Hashemi et al. 2012). It seems that Korean EFL learners also lack perception of how to make a set of phrases with several words and have insufficient ability to express collocations or fixed phrases. This might be because of the shortage of time and lack of exposure. Their exposure time is limited to the English classes in school and private institutes, unless they spend extra hours studying English by themselves. It would be useful for learners to try to practise fixed phrases, regarding them as a single item, and learning them with repeated exposure. In RuneScape, players can keep being exposed to fixed phrases repeatedly whilst playing the game (See examples in Appendix S). Playing RuneScape would give more opportunities than the classroom for learners to perceive fixed phrases as a single unit, by encountering them repeatedly without analysing them grammatically. They could learn the same fixed phrases in context and this would help them to work out the meaning through context. There are visual clues and the game's narrative to help. I argue that RuneScape would be a way for Korean children to acquire fixed phrases.

In the Korean context, English education for elementary school students focuses on enhancing learners' communicative competence at the basic level. Lewis (2002b) argues that 'institutionalised expressions provide a way of increasing the elementary student's communicative resources rapidly' (p. 95). Hunston and Francis (1998) suggest that 'the use of a lexical item with a pattern … is a resource for language creativity and, possibly, for language change' (p. 69). Although they studied an approach to grammar based on pattern, and it is not exactly the same phenomenon, it overlaps in terms of the phenomena of pattern and chunks. They suggest that a pattern grammar would be useful for learners to develop fluency because 'the patterns effectively constitute learnable *chunks*, each pattern flowing into the next' (Hunston and Francis 1998: 70). I suggest therefore that, were

Korean children's knowledge of fixed expressions improved, its influence would be transferred to the scope of reading skills, so that their reading fluency with communicative competence would be enhanced. It is possible that learning more fixed expressions would help with all aspects of fluency and language skills.

7.4.3 Digital Texts

The third category of language which learners encounter is new literacy, which involves visual, multimodal and digital texts (Sandford and Madill 2007). New literacy was already discussed with multimodality in section 4.2.2. This study deals with only digital texts because my focus is on texts in RuneScape, not the visual or multimodal factors which exist in RuneScape. I selected them to represent the rest of the text data categories: RuneScape vernacular, terms specific to computer games, chat speak, emoticons and reduplication.

RuneScape Vernacular

To identify which Runescape vernacular participants encountered, I used five categories: regions, NPCs (Non-Player Characters), places, things and names. I present their full examples according to the categories in Appendix T.

Terms to Specific to Computer Games

RuneScape involved some terms specific to computer games, so I needed to include them into my text data. I made the section and input the data into the text data analytical framework. The entire computer terms which participants encountered are as follows:

character name	*keyboard*	*task*	*level*
arrow keys	*control key*	*control*	*quest*
drop-down box	*click*	*tab*	*icon*
chat window	*item*	*default*	*drag*
click here	*run mode*	*website*	*zoom in*
loading-please wait	*log in*	*interface*	*zoom out*

member's account	*log out*	*cheat*	*scroll map*
shortcut keys	*user name*	*screen*	*window*

Chat Speak (Acronyms and Abbreviations)

RuneScape has the function of IM (Instant Messaging) to facilitate communication by allowing players to chat to each other in the chat dialogue box. In my research context, I realised that I needed to identify what kinds of online language there are whilst playing RuneScape. I named the first online language as “chat speak” defined as online or SMS (Short Messaging Service)-type language, such as texting for mobile phones, using numbers to create letters and words. I discovered acronyms, abbreviations and other chat terms used by other players when participants were playing. I therefore put them into the category of chat speak in my text data and made a table divided into three categories, acronyms, abbreviations and other chat terms. The following Table 7.1 demonstrates a complete list of chat speak.

Table 7.1 Classification and Examples of Chat Speak

CATEGORY	**ABBREVIATIONS**	**ACRONYMS**	**OTHER CHAT TERMS**
Examples	• Lol ("Laugh out loud) • Plz ("please") • Plzz ("please") • U r (" You are") • R u (“are you”) • ur ("your") • Yu ("You") • Thx ("Thanks") • Thnx ("Thanks") • Thanx ("Thanks") • No thx ("No thanks") • Wat ("what") • Wut ("What") • Wt ("what") • Wats ("What's") • Gz ("Congratulations") • Gd! ("Good!") • wanna ("want to") • dont ("do not") • sec ("second") • Info ("Information") • dnt ("do not") • duno ("don't know") • K ("okay") • Kk ("Okay cool") • lvl ("level") • Folo ("Follow-up") • Yh ("Yeah") • C ya ("See you") • sq ("square") • b4 ("before") • tht ("that) • Sup ("What's Up”) • Obvs ("Obviously") • Cuz ("Because") • Im ("I am") • fm ("female") • Got 2 much of it ("Got too much of it") • Ty 4 the offer ("Thank you for the offer") • wanna b (“want to be") • I don’t no ("I don't know") • Wubu2 ("What you been up to")	• Idk ("I don't know") • f2p ("free-to-play") • Ni ("No idea") • Gga ("Good game all") • Nty ("No Thank You") • Wip ("Work In Progress") • Gf ("Good Fight") • Ty ("Thank you") • Yt ("You there") • Brb ("Be right back") • Np ("Now playing") • Np ("No problem") • Hb ("Hurry back") • Ik ("I know") • Gp ("Good point") • Naa ("Nothing at all") • Stfu ("Shut the fuck up") • iyd ("in your dreams") • Pk (Probability of kill) • Lmaoo ("Laughing my ass off")	• Nive (very cool or nice) • noob (a person who is new or inexperienced in online game) • Nub (a version of noob but worse than noob) • Yea (Yes) • Yup (Yes) • Ennit (Expression of agreement) • homies (crowd of friends) • Lobe you (love you) • bro (friend)

Emotions

Emoticons were used to express feelings or emotions in online chat or SMS. I found a number of emoticons used by other players in the chat dialogue box and classified them into kinds of feelings. Table 7.2 below provides all the examples in the classification of emoticons as follows:

Table 7.2 Classification and Examples of Emoticons

CATEGORY	EXAMPLES OF EMOTIONS
Smiley, Laughing or Happy Face	:) :] ^^ :D :L =] ^_^ XD :)))
Smiling for Joke	;O
Sad, Frown or Depressed	:(V.V ={ :-(
Tongue Sticking Out, Cheeky or Playful	;P =P :p
Surprise or Shock	:O O.O Oo O: Ooo o.O
Sceptical, Annoyed, Uneasy or Hesitant	:/
Slight Annoyance	¬_¬
Wink or Smirk	;)
Sarcasm or Foolishness	<_<
Horror or Disgust	D:

Reduplication

I found that some RuneScape players made reduplication while chatting with other players in chat dialogue box. They used the same spellings, or exclamation and question marks, repeatedly in a word stem or root to express it more exaggeratedly. I divided these into two sections: repetition of same spellings and repetition of exclamation or question marks. Table 7.3 below shows the classification of reduplication and entire examples as follows:

Table 7.3 Classification and Examples of Reduplication

Category	Repetition of Same Spellings	Repetition of Exclamation or Question Marks
Examples	• Uhhh • Awwwh • Noooooooooooooooooooo • Noooooooooooo! • Hahaha • Nuuuu • Ovaa hereee • Hhaa • Hehe • Hmm • Awww • hellooo • Ohh • Money plzzzzzzzzz	• Hi!!! • Serouslyy?? • Fox en????? • Silly!!!!!! • Money??!!! • how to use anvil??? • Why are you staying here???? • Where are you from??? • Wwhat?????#

Discussion

New literacy, including digital texts, could be a modern language, created by the development of the new technology and the digital world, such as computers and the Internet (See section 4.2.2). Along with generally-used vocabulary and fixed phrases, new literacy is important for Korean children. This is because children spend much of their lives 'surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age' (Prensky 2001b: 1). This implies that they are familiar with new literacy of computers, computer games and the Internet. Some Korean children might be not interested in playing computer games; however, they are probably exposed to new literacy when using computers or mobile phones to do their homework or communicate with their friends. It does not mean that all teachers are unfamiliar

and uncomfortable with computers and new literacy. According to Prensky (2001), unlike children, teachers can be characterised as those who 'were not born into the digital world but have, at some later point in (their) lives, become fascinated by and adopted many or most aspects of the new technology' (p. 1-2). The Prensky's digital dichotomy of digital native children and digital immigrant teachers, has been debated and critiqued (Bayne and Ross 2007; Bennett and Maton 2010; Bennett et al. 2008; Connaway et al. 2012; Helsper and Eynon 2010; White and Le Cornu 2011; White et al. 2012) (see Chapter 2). Although Prensky (2009) suggested the new term digital wisdom, which can be gained at any age, I do not use his terms for Korean children and teachers in this study. It seems to be difficult to divide digital users, because it is not a just about age; it can be an individual preference or different modes, such as visitor or resident (White and Le Cornu 2011). For example, someone might prefer using the computer for making documents, such as in Word file or Excel; however, he or she might prefer meeting friends face to face rather than communicating through online social network services, such as Facebook or Twitter. In this study, therefore, I do not intend to divide the digital users. I focus on Korean young learners, who could encounter the digital texts while playing RuneScape, the platform for which is based on the Internet. It is possible that they could become familiar with the digital texts by playing the computer game and chatting with other players. I argue therefore that playing RuneScape can be a tool for encountering digital texts and has the potential to engage Korean children in acquiring new literacy.

7.5 Summary

This chapter has described the RuneScape gameplay with specific examples of Robin's using the flow chart. It has also discussed my text data with examples, according to the categories: generally-used vocabulary, fixed phrases, RuneScape vernacular, lexis specific to computer games, chat speak, emoticons and reduplication. The next chapter discusses the first part of the findings about vocabulary learning strategies, based on the observation data.

Chapter 8 FINDINGS (1): VOCABULARY LEARNING STRATEGIES

8.1 Introduction

In collecting data, I conducted observations, filling in the preliminary observation checklists (see Appendix E) whilst participants were playing Runescape. As a type of exploratory case study, however, my preliminary observation checklists were modified and added during the analysis, in accordance with the unpredicted responses from participants whilst carrying out the main research. Through the revising process, I constructed my final observation analytical framework (see Appendix P), which was useful when inputting and analysing observation data. In the framework, I made two parts: the first part, vocabulary learning strategies, is in this chapter; the second part is reading strategies, which will be discussed in Chapter 9. Based on the collected data, I made appropriate categories to present my findings: looking words up in the dictionary, verbalising vocabulary and guessing meanings verbally. Figure 8.1 shows these categories below.

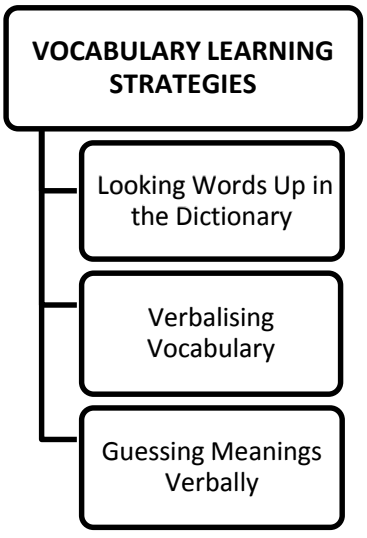


Figure 8.1 Categories of Vocabulary Learning Strategies

In looking words up in the dicationary, I found vocabulary my participants searched for, counted the numbers and presented them in categories: vocabulary searched for; searching for substitutable vocabulary; and repeating searches for vocabulary.

In verbalising vocabulary, I found common themes from the data and classified them with three types of verbalisation: saying vocabulary aloud in English; saying English spelling aloud; and reading aloud word meanings in Korean after looking them up in the dictionary. I found that participants verbalised when guesing word meanings. I was able to sort out different types from the data: asking me questions directly; asking me questions to check for confirmation; questioning themselves or muttering to themselves to try to aid recall; and questioning themselves or muttering to themselves to check with themselves. Based on those categories, this chapter discusses the findings of vocabulary strategies that participants used when encountering vocabulary while playing RuneScape.

8.2 Findings about Vocabulary Learning Strategies

I found that all five participants applied their own ways to try to understand the unknown words they encountered. They read instructional texts about how to initiate and implemented the tasks in RuneScape. In my research design prior to my fieldwork, I anticipated the actions or strategies my participants would take: for example, looking words up in the dictionary, ‘guessing or recall meaning from the context with background knowledge’ and ‘taking notes and reviewing’ (Kojic-Sabo and Lightbown 1999: 190). During my fieldwork, my participants looked up unknown words in the dictionaries, using their own mobile phone or electronic dictionaries along with online dictionary, in accordance with their personal preference. The unexpected issue was that they did not take notes of the unknown words after looking up in dictionary or review them. I was therefore unable to obtain any data about note-taking. All of them said vocabulary aloud in English, or sounded out English spellings or read aloud vocabulary meanings in Korean after looking them up in the dictionary. In guessing strategies, participants tried to guess the word meanings by asking me, or questioning or muttering to themselves. Based on the difference, vocabulary learning strategies were classified into three categories: looking words up in the dictionary, verbalising vocabulary and guessing vocabulary meanings verbally. They were divided into sub-categories in order to

describe vocabulary strategies in detail. The following sections will discuss specific vocabulary strategies in categories. I then will analyse and present the frequency of verbalisation behaviour in vocabulary learning strategies in table and graph forms, showing which participant verbalised most and least.

8.2.1 Looking Words up in the Dictionary

When participants encountered unknown words during playing RuneScape, they tried to find out the meanings through mobile phone, electronic and online dictionaries, in accordance with their personal preference. For data analysis, I divided it into the three sub-categories: vocabulary searched for, searching for substitutable vocabulary and repeating searches for vocabulary.

Vocabulary searched for

I counted words participants looked up in the dictionary and the most frequent ones were:

- 5 times: *combat*
- 4 times: *tan, mining, hover, dagger, cast*
- 3 times: *thread, statistics, spot, outfit, needle, hide, graph, fee, edible, cowhide, copper, benefit, alternatively*

The word *combat* was the most frequently searched word, with five times. It seems that participants regarded this word as the most important unknown word whilst completing tasks. The words with frequency counts of four times and three times were key words in the Hints section to explain how to carry out tasks or quests successfully. Table 8.1 represents the sessions participants carried out in each row; the vocabulary searched for by each participant in each column.

Table 8.1 Vocabulary Searched for by Participants and Session

Name / Session	Daniel	Kathy	Steve	Charles	Robin
1	waypoint, task, arrow, destination	warrior, fletcher, toggle, dungeon, goblin, escort	confirm, copper, bar, dagger, custom	shiny	crafter, craft, mage, reach, potion, tomb, farewell, axe
2	option, planning, able, acolyte, necromancer	idiot, overpower, stuff, sling, balcony, disturb	dagger, hide, sidebar	N/A	axe, tin, mining, spot, copper, provide, anvil, examine, forge, metal

3	N/A	cast, autocast	sling	pickaxe	satchel, spot, range, select, light, combat, edible, restore, graph
4	acquire	acquire, dagger, tin, copper, bar, smelt, crateful, crate	N/A	N/A	hover, benefit, thieving, statistics, deposit, access, owe, bounty, claim
5	crayfish, combat, graph, reach, experience, benefit, statistics	select, dagger, hatchet	pickaxe, provide, within, autocast	bronze, anvil, click, regular, tinderbox, log	spiffing, fibre, needle, thread, leather, description, craft, guidance, rid
6	withdraw, hover, earning, access, leather, cowhide, cast	combat, edible, consume, restore, benefit, statistics, hover	cowhide, tan, outfit	click, edible, inventory, graph, icon	cemetery, coastline, meditating, meditation, sign, guarantee, grouchy, rid, amulet, incredible
7	graveyard, swamp	however, deposit	cowhide	hover, ladder, tan, hide, fee	prayer, sidebarmenu, sidebar, summarize, outfit
8	armour, outfit, add	tan, hide, fee, dye, bash, pound, focus, needle, thread, website, restless	mining	fee, thread, needle, quest, shack, swamp	bronze, prospect, clay, bucket, jug, alternatively
9	alternatively, combat, catacomb, warped, flies	coastline, south, amulet, spot, mining, automatically, destroy	hatchet, log, pray	keep, pretty, mining, find, skull, coffin, prayer	alternatively, sacks, wheel, combat, warped, catacombs
10	N/A		red dye	musician, armour	N/A
11	protect, recharge, player, altar		tan	clay, source, directly	
12	grind, windmill, grain, field, friend, hopper, container		bucket, wheel, flies, catacombs	N/A	
13	dough, dowgh, dought, wield		suitable	cast, windmill	
14	N/A		suitable, cast, rune	grain, field, hopper, add, collect	

Searching for substitutable vocabulary

Two participants, Kathy and Robin, tried to look up some words in an online dictionary first, but the words were not in the dictionary. They then tried to use the form of the word as a clue to meaning. The first vocabulary learning strategy, which participants used, was to find a “partial component” of the word, when the word they were searching for could not be found in the online dictionary. Then they tried to infer the meaning from the part. For example, Kathy looked up in the dictionary

to find the word *autocast*, but she was unable to find it so searched for the word *cast*. Then she tried to infer the meaning of *autocast* from the part of the word *cast*. All the examples are as follows:

Examples>
autocast → *cast* (Kathy)
crafter → *craft* (Robin)
crateful → *crate* (Kathy)
sidebarmenu → *sidebar* (Robin)

Another vocabulary strategy was to find a different "part of speech" to assume the meaning of a word not listed in the dictionary. For example, Robin was unable to find the word *meditating* in the form of a progressive verb in the online dictionary at first, so he tried to search for the word *meditation* in the form of a noun to infer the meaning of *meditating*.

Example>
meditating → *meditation* (Robin)

Repeating searches for vocabulary

Participants repeated searches for vocabulary which they had already searched for before. Vocabulary that was looked up repeatedly was *combat, dagger, cowhide, suitable, click, fee, tan, axe, spot, rid, alternatively*. Interestingly, both Kathy and Steve searched again for the word *dagger*.

8.2.2 Verbalising Vocabulary

The second category of vocabulary strategies was verbalising vocabulary. Participants were saying out loud vocabulary in English, or English spellings, or vocabulary meanings in Korean, when encountering them while playing RuneScape. Verbalising vocabulary was classified into three sub-categories: saying vocabulary aloud in English, saying English spellings aloud and reading aloud vocabulary meanings in Korean after looking up in the dictionary.

Saying vocabulary aloud in English

When participants encountered some unknown words when playing RuneScape, all of them tried to say them aloud in English after looking them up in the dictionary or without doing it. Examples of saying vocabulary aloud in English are as follows:

- Daniel - *'access', 'rewards', 'outfit', 'sword', 'crossed', 'combat', 'wield'*
- Kathy - *'complete', 'select', 'edible', 'bash', 'automatically'*
- Steve - '*hatchet', 'axe', 'bank teller', 'crafting', 'clay pot', 'tan', 'water', 'wheel*'
- Charles - '*little', 'clay', 'tutor*'
- Robin -*'Zamorak' (RuneScape vernacular), 'hatchet', 'tinderbox', 'edible', 'deposit', 'choosing', 'Ah, I know this word!', 'cemetery', 'incredible', 'sacks', 'bucket', 'calf*

Saying English spellings aloud

Before searching for the unknown words in the dictionary, only two participants, Steve and Charles, tried to say their English spellings aloud. Charles said English spellings aloud three times: *tinderbox*, *grain* and *field*. Steve did it twice, saying out loud the spellings of *wheel* and *flies*. It was interesting to me that Charles said English vocabulary aloud least frequently but said English spellings aloud most frequently. It seems that children might have their own preferred ways to raise awareness of new vocabulary and aid the retention of them.

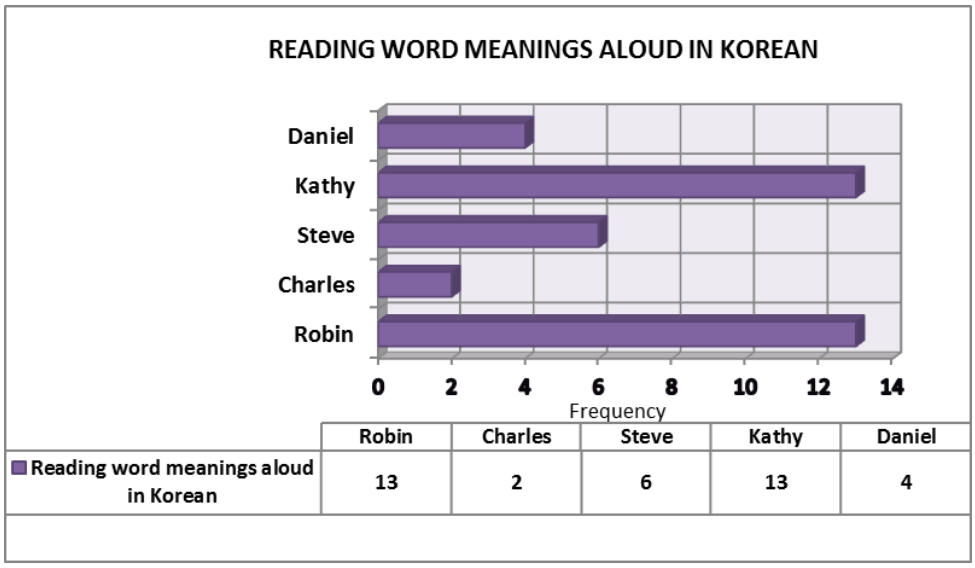
Reading aloud word meanings in Korean after looking them up in the dictionary

All participants tried to read aloud word meanings in *Korean* after searching for some unknown words: for example, Daniel read the meaning of *withdraw* as '*in-chul'* (in Korean). The following Table 8.2 presents all examples with participants' names in each row, their examples in the second column and the number of occurrences in the third column.

Table 8.2 Examples of Reading Word Meanings Aloud in Korean

Participants	Examples	
Daniel	withdraw - *'in-chul'* (in Korean) add - *'choo-ga-ha-da'*	graveyard - *'myo-ji'* *combat - 'ssa-u-neun-geo'*
Kathy	dagger - *'dan-gum'* copp*er -'gu-ri'* *s*melt - *'yong-hae-ha-da'* edibl*e –'sik-poom'* pound - *'chi-da'* needle - *'ba-neul'* mining - *'kwang-san'*	tin -*'ju-seok'* bar -*'bit-jang'* select – *'go-leu-da'* bash - *'ttae-ri-da'* focus - *'chot-jeom'* thread - *'sil'*
Steve	tan - *'moo-do-jil'* *outfit - 'yeo-hang-jun-bi'* log - *'tong-na-moo'*	cowhide - *'soei-ga-juk'* hatchet - *'son-do-kki'* catacomb - *'ji-ha nab-gol-dang'*
Charles	shack - *'pan-ja-gib'*	musician - *'eum-ak-ga'*
Robin	examine - *'kum-to-ha-da'* or *'jo-sa-ha-da'* (two meanings) axe - *'do-kki'* provid*e - 'kong-guep-ha-da'* *a*nvil - *'mo-ru'* forge -*'yong-kwang-ro'* deposit - *'ye-kyum-ha-da'* thread - *'sil'* bronze - *'cheong-dong'* prospect - *'tam-sa-ha-da'* sacks - *'ja-roo'*	bounty - *'neo-geu-reo-un'* (*generous* in English) or *'hyun-sang-geum'* (*reward* in English) or *'sang-geum'* (*prize* in English) (two meanings) needle - *'ba-neul'* coastline - *'hae-an-ga'* clay - *'jeom-to* or *hheuk'*

At this point, I would like to mention the frequency result of each participant. The main focus of this study was not on individual differences, but I would like to know that there were any differences between participants, which would be helpful data for further studies. To identify who read out loud word meanings in Korean most after looking them up in the dictionary, I counted the frequency for each participant. Figure 8.2 below presents this in graph form, showing the results: Kathy and Robin did this most, 13 times, followed by, in descending order, Steve, Daniel, Charles, who did this 6, 4, and 2 times, respectively. The results were different from ones of saying English spellings: only Steve and Charles did. The findings indicate that they have their own favourite ways to reveal that they were learning vocabulary. It seems that participants verbalised vocabulary meanings in Korean unconsciously, but tried to raise awareness of and remember them.



	Robin	Charles	Steve	Kathy	Daniel
Reading word meanings aloud in Korean	13	2	6	13	4

Figure 8.2 Counting the Numbers of Reading Word Meanings Aloud in Korean

8.2.3 Guessing Word Meanings Verbally

The participants often asked me the meanings of unknown words. I did not want to interfere or be involved personally in their playing. This was because I wanted to observe their own learning process and achieve learner-focused data without any intervention as a teacher. I therefore did not respond to these requests. I shook my head and smiled in a friendly way to refuse to comment. The other way participants tried to work out word meanings was to ask questions themselves or mutter to themselves. Within those ways, I found some general patterns in the data. I present the patterns and examples to highlight key findings. I have translated Korean into English, using square brackets [ ]. I translated word for word, so some parts seemed to be awkward.

Asking Me Questions Directly

Sometimes, participants asked me the meanings of unknown English words directly as they encountered them in the texts. In example 8.1, Steve did this when he was reading the Hints section to get information about how to solve a task, but he did not know the meaning of “rune”, so he asked me. As noted above, I declined to answer questions like this. I used quotation marks round words in English they asked about. The rest of the sentence was in Korean and I translated it into English.

Example 8.1: [*'Could you tell me what "rune" means?'*] (Steve)

Steve then tried to infer the meaning of "rune" from RuneScape, muttering to himself: [*'I think that "rune" is involved in RuneScape'*]. He failed to infer its meaning and looked it up in the Yahoo online dictionary (a strategy described above in section 8.2.1).

Asking Me Questions to Check for Confirmation

In some cases, participants asked me questions to make sure whether their understanding of the Korean meaning of an unknown word was correct, after looking it up in the dictionary (a strategy described above in section 8.2.1). In example 8.2, when Charles was reading the texts in the Hints section, he stopped to look up the word "tinderbox" in the dictionary in his mobile phone. However, the Korean meaning of "tinderbox" was a quite difficult word for children to understand, so he asked me a question to confirm its Korean meaning. I refused to comment; I just smiled and shook my head. I used quotation marks round words in Korean participants were pronouncing. The rest of the sentence was in Korean and I translated it into English.

Example 8.2: [*'Could you tell me what the meaning of "bu-sit-git-tong"* (in Korean, *"tinderbox"* in English) *is*?'] (Charles)

Charles was unable to understand its Korean meaning at that moment. In the following sessions, however, he became to know its meaning through looking at the picture of "tinderbox".

In example 8.3, when Robin saw the word "spot", he stopped to look at it and looked it up in the dictionary. In the dictionary, there were two Korean meanings: "location" and "place". He asked me the correct meaning of "spot" to comprehend the sentence. The meaning of "place" seemed to be the best translation in this context, but I just shook my head and smiled to decline to answer.

Example 8.3: [*'Could you tell me if there isn't the correct meaning of "spot" here? "Location" or "place"?'*] (Robin)

In the other hand, there was a different strategy when participants were asking me questions. They wanted to check whether their guess about the Korean meaning of an unknown word was correct, without looking them up in the dictionaries. In example 8.4, when Robin saw an English word "needle", he said it in Korean. He guessed the word meaning correctly by doing an action of sewing by hands and asked me whether his guess was correct. I just smiled politely to decline to answer the question. Robin guessed the Korean meaning correctly.

Example 8.4: [*'Could you tell me if needle means a sort of tool for "ba-neu-jil"* (in Korean, *"sewing"* in English)*, right?'*] (Robin)

In example 8.5, when Charles encountered the word "musician" in the Hint text, he stopped to look at it and tried to work out its Korean meaning. He asked me a question to confirm that he worked it out correctly. I refused to comment, smiling and shaking my head in a friendly way. However, he guessed it wrongly as "conductor".

Example 8.5: [*'Could you tell me if a musician means "gi-hui-ja"* (*"conductor"* in English)?'] (Charles)

Charles was unable to ensure his guess because he used the dictionary in his mobile phone to find its correct Korean meaning. After that, he started to find a musician, following the instruction in the Hint section.

Questioning Themselves or Muttering to Themselves to Try to Aid Recall

Participants asked themselves questions or muttered to themselves apparently in an attempt to recall word meanings. Sometimes, they recalled them successfully. In example 8.6, when Daniel encountered the word "windmill" in the text in the Hints section, he stopped to look at it and muttered to himself. He had found it in the dictionary in the last session and he managed to recall it by muttering to himself.

Example 8.6: [*'Ah, I know the word "windmill", "poong-cha"!'*] (in Korean, *"windmill"* in English) (Daniel)

In some cases, however, participants failed to recall word meanings and found the words in the dictionaries. In example 8.7, when Steve saw the English word "cowhide" in the text, asked a question to himself and tried to recall its Korean meaning.

Example 8.7: [*'What was the meaning of "cowhide"? Ah, I forgot it…'*] (Steve)

Although Steve looked it up in the dictionary in the last session, he was unable to recall it successfully. He found its Korean meaning in the dictionary again.

Sometimes, participants confused some English words with similar words and recalled them wrongly. In example 8.8, Robin was reading the Hints section to get information and encountered the English word "leather". He asked a question to himself and tried to recall its Korean meaning. However, he confused it with the word "leader" and recalled it unsuccessfully.

Example 8.8: [*'Does leather mean "i-kkeu-neun sa-ram"* (in Korean, *"leader"* in English)?'] (Robin)

Robin was confused with the two words because the spellings were similar. He did not attempt to pronounce them, although they are pronounced differently. It seemed that he did not make sure that his guess was the best translation because he found it in the dictionary. He found that his guess was not correct.

Questioning Themselves or Muttering to Themselves to Check with Themselves

In some cases, participants asked themselves questions or muttered to themselves, to work out whether their guess about the meaning of a word was correct. Sometimes, they guessed them correctly. In example 8.9, when Kathy finished the task, the word "complete" appeared in the screen. She muttered to herself to check its meaning with her memory.

Example 8.9: [*'Ah, it means that all finished!'*] (Kathy)

Kathy's memory was correct. She then started a new task.

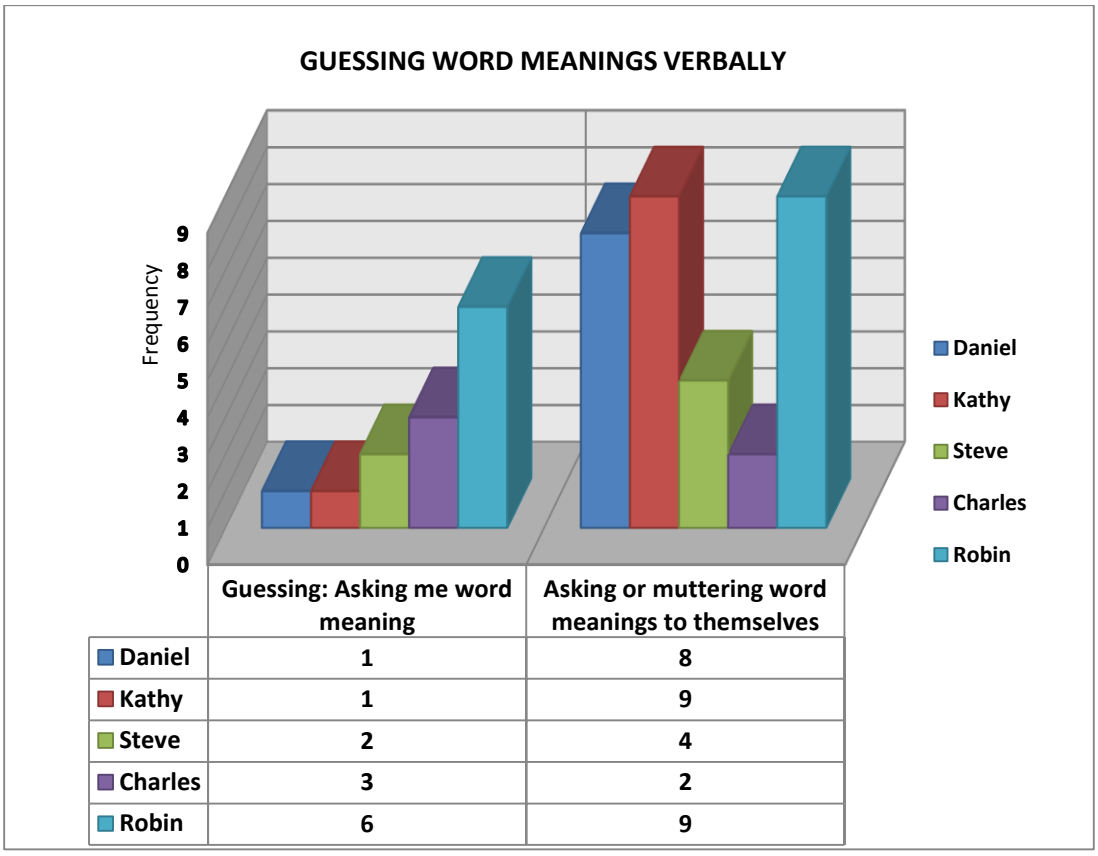
Sometimes, participants guessed them wrongly by confusing an English word with a similar word. In example 8.10, when Charles saw the word "needle" in the text, he asked himself a question to check with his memory, but his guess was incorrect.

Example 8.10: [*'Does "needle" mean "phil-yo-ha-da"* (in Korean, *"need"* in English)? *No?'*] (Charles)

Charles confused the word "needle" with the word "need" because the spellings look similar. He was not sure that Korean meaning was the best translation because he found the word needle in the dictionary. He then realised that his guess was wrong and it was a different word.

The Numbers of Guessing Word Meanings Verbally by Participants

In terms of the numbers of asking me word meanings, Robin asked me the questions 6 times most: Charles did 3, Steve did 2 times, and Daniel and Kathy did only once. As I mentioned earlier, although I politely refused to reply their questions, particularly Robin did 6 times. After the 5th session, however, he did not ask me questions anymore because I kept refusing to answer. I found that it was his personality to ask questions very often to me and other English teachers. They said that he was a very curious and enthusiastic student in their classes. About the numbers of asking or muttering word meanings to themselves, Kathy and Robin asked or muttered word meanings to themselves most, 9 and Daniel did this 8 times. Steve and Charles did it 4 times and 2 times, respectively. Figure 8.3 below presents these results in graph form. According to the number of occurrences of verbalisation, when the participants were working out word meanings, they showed their different strategies: asking me questions, or asking questions themselves, or muttering word meanings to themselves. This indicates that they had different approaches to show that they were learning vocabulary.



	Guessing: Asking me word meaning	Asking or muttering word meanings to themselves
Daniel	1	8
Kathy	1	9
Steve	2	4
Charles	3	2
Robin	6	9

Figure 8.3 The Numbers of Guessing Word Meanings Verbally by Participants

8.2.4 Development of Vocabulary Learning

The frequency of looking words up in the dictionary varied for each participant and different tasks, rather than across sessions (see Table 8.1 in section 8.2.1). It suggests that they had individual preferences, and also that they were able to choose a strategy appropriately. The frequency of verbalising vocabulary and guessing word meanings verbally also varied, apparently according to the different learning style of each participant and the numbers of unknown words in the texts of each task, rather than across sessions. It is difficult to say therefore that developments in participants' vocabulary learning took place across sessions. RuneScape players were able to select tasks randomly as a personalised gameplay, not proceeding step by step. It seems that learning vocabulary took place in the task-based game: participants were learning vocabulary using their own approaches to work out the unknown words, according to the contents of the tasks. This suggests that they were developing their ability to use strategies well, rather than learning vocabulary items by themselves. In this learning environment, it

seems that a great amount of vocabulary input and transferring them in each step is important for vocabulary development, according to the model of Hatch and Brown (1995), which I explained in section 3.3.2.

8.3 Summary

This chapter has examined and described findings from observation data about vocabulary learning strategies participants used when encountered the unknown English words. The vocabulary learning strategies they applied were: looking word meanings up in the dictionary; verbalising vocabulary; and guessing meanings verbally. The next chapter discusses findings of reading strategies participants used.

Chapter 9 FINDINGS (2): EVIDENCE OF READING STRATEGIES

9.1 Introduction

All participants made use of their own ways to read and understand the texts, which they encountered whilst playing RuneScape, in particular in instruction sections, such as Hints or Description sections, or reading conversation with NPCs. As I discussed in Chapter 6, my orginal categories of kinds of reading were search reading, skimming, scanning, careful reading and browsing from Urquhart and Weir's (1998) classification. Other reading strategies were skipping an unknown word while reading; rereading to re-establish text meaning; predicting the contents of the text; making inferences; and guessing the meaning of a new word from context. I found that my data were slightly different from the well-known reading strategies discussed in the ELT literature in Chapter 4. I needed to develop my own categories to encompass the range of behaviours I observed. Like my analytic framework for vocabulary learning strategies, my list of visible signals for reading strategies was revised to converge, delete and add some sections from the preliminary observation checklists (see Appendix E) after conducting my fieldwork. The five categories in the final analytic framework (see Appendix P) were divided into clicking, verbalising, reading texts aloud, translating and typing. Figure 9.1 presents the frame of categories in evidence of reading strategies. The reason why I called this "evidence" of reading strategies is that clicking does not fit into the traditional model of reading strategies. Although clicking is not a reading strategy itself, I found that it is possible evidence of reading strategies (see Chapter 10).

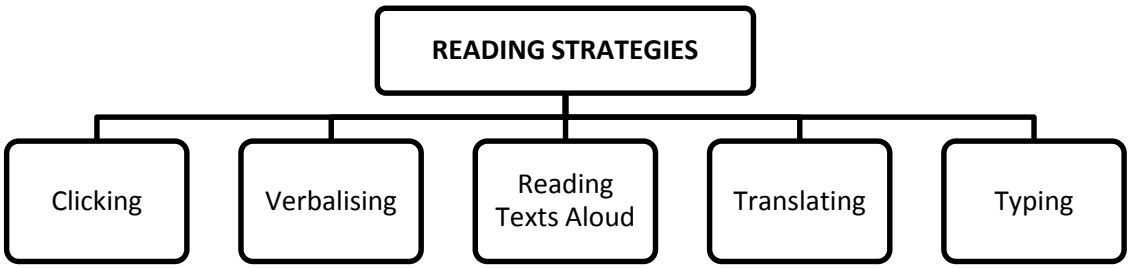


Figure 9.1 Categories of Reading Strategies

It was very hard to analyse the data of the types of reading in my context because of the difference of paper and online game reading. I thus observed my participants' clicking behaviours, making a new category of clicking. I classified clicking with categories of clicking instantly without reading the text; clicking quickly after reading the text quickly; clicking after time enough to read the text thoroughly; and clicking the same text repeatedly. I found that sometimes my participants said aloud something when reading the texts in the game. I distinguished their verbalising for guessing or commenting from their reading only the sentences aloud, making separate categories because they were different oral expressions. I analysed the data of verbalising as asking me questions to guess the tasks; muttering to themselves for commenting to themselves; muttering to themselves to guess the tasks through context; and questioning themselves and muttering to themselves to guess the tasks. In reading texts aloud, according to which parts my participants read, I divided it into reading texts aloud in: Hints section; Description section; chat window; chat dialogue box with texts typed by a player; and conversation box with NPCs. I found that all participants tried to translate English sentences aloud into Korean. I analysed the data according to which parts they translated in: the Hints section; Description section; and conversation with NPCs. Typing was the last data I analysed. I found that two participants, Steve and Robin, typed English texts when attempting to chat with other players. I analysed their behaviours of typing words or sentences into the chat dialogue box.

Although vocabulary learning strategies and reading strategies looked parallel, it is difficult to distinguish them because vocabulary is closely associated with reading. In particular, although the categories of "guessing word meanings verbally" in vocabulary learning strategies and "verbalising" in reading strategies looked similar, their specific classification and examples were different. This was because I attempted to distinguish verbalising for guessing vocabulary meaning with verbalising for guessing the sentence meaning.

This chapter describes specific strategies of each participant within categories: clicking, verbalising, reading texts aloud, translating and typing, with typical

examples. It then describes the interview data as supplementary data with learners, the English teacher and the head teacher. Interview questions dealt with their perceptions about English education at school computer games and English learning and RuneScape as a tool of learning English for Korean children.

9.2 Findings about Reading Strategies

9.2.1 Clicking

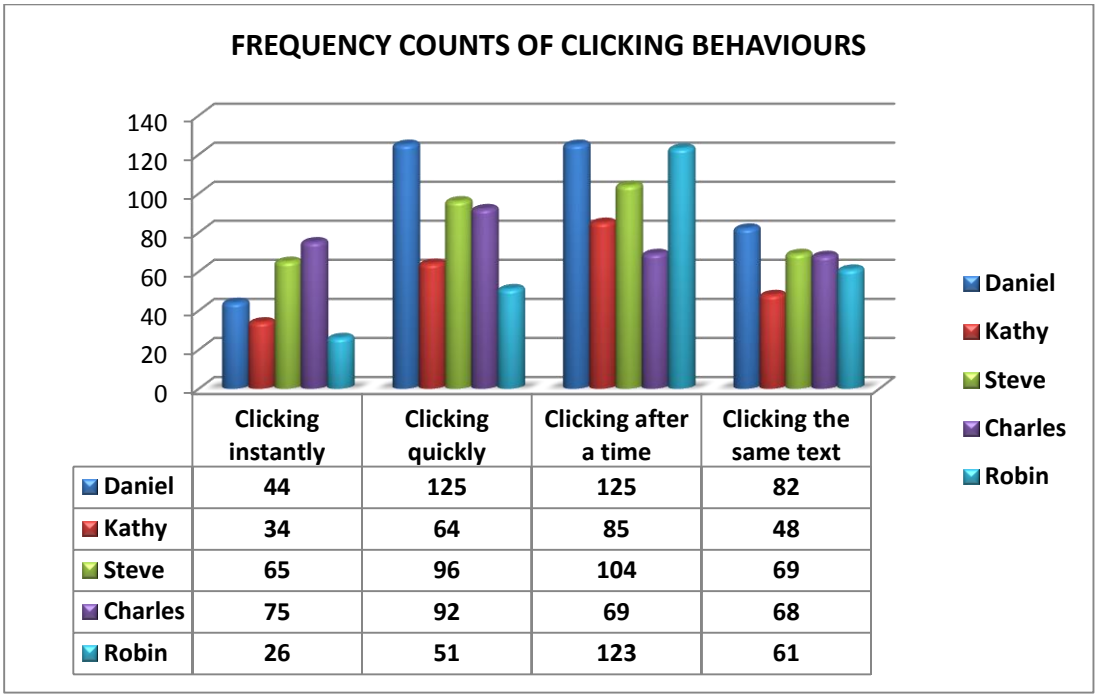
My original plan for analysing reading skills was to identify the types of reading, like search reading, skimming, scanning, careful reading and browsing (Urquhart and Weir 1998) (see preliminary observation checklists in Appendix E). In my fieldwork, however, I realised that there existed two differences between reading paper books and reading the texts in RuneScape: the location of the text and way of reading. The first difference was the location of the text in RuneScape, which was different from reading paper books, where the text runs from one page to another. Websites like RuneScape appear on screen, and texts are distributed into diverse locations. At first, it was quite difficult to detect which parts participants were reading. Nonetheless, I observed and noticed that participants tended to read the texts in specific places, such as Hints, Requirements and Description sections, and the conversation box presenting dialogue with NPCs. These places provided the texts giving instructions or information how to start and complete tasks successfully. The other difference was the way of reading in RuneScape, which was different to reading paper books. Whereas reading in paper books is done by turning over the pages, reading in RuneScape was done by changing the screen through clicking behaviour. According to the length of time before the next clicking, the screen was turned into the next one quickly or slowly. I conjectured that the length of time before the next clicking and visiting the same texts again would be related to the kinds of reading they did. I therefore observed participants' clicking behaviours carefully when they were reading the texts. According to the results of observing their clicking behaviours, I classified them into the following four types:

- Clicking instantly without reading the text

- Clicking quickly after reading the text quickly
- Clicking after time enough to read the text thoroughly
- Clicking the same text repeatedly

The Numbers of Clicking Behaviours

It seems possible that counting the clicking frequency of each participant can indicate individual's approaches to reading. I counted clicks in total count, although participants took part in different numbers of sessions according to their individual situations. The following Figure 9.2 presents the clicking behaviours with the forms of graph and table: the table shows each category of clicking behaviour in the column, indicating the numbers of clicking occurrence of Daniel, Kathy, Steve, Charles and Robin in each column.



	Clicking instantly	Clicking quickly	Clicking after a time	Clicking the same text
Daniel	44	125	125	82
Kathy	34	64	85	48
Steve	65	96	104	69
Charles	75	92	69	68
Robin	26	51	123	61

Figure 9.2 Counting the Numbers of Clicking Behaviours

When it comes to the items of clicking instantly, Charles clicked most frequently, 75 times and Robin did it least as 26 times. These results indicate that Charles skipped reading the texts most; but Robin did it least. The results of Charles (first in clicking instantly and last in clicking after a time and clicking the same text) suggested that

he tended to read the texts roughly, not carefully. Actually, I observed that he tried to click every icon on impulse, without looking at the text parts with concentration. He also did not read the instruction parts to provide the explanation how to complete tasks, showing that he immediately started the tasks without reading instructions by trial and error. It led him to take longer to complete each task or quest compared to other participants. In contrast, Robin showed the results of clicking frequency that he read the texts most carefully and read the same texts again most. During the observation, he told me that he was taking part in this game-playing research with interest, enthusiasm and ambition to complete tasks or quests more quickly than other participants. Indeed, he was the most frequent in the items of clicking after a time and clicking the same text and the last in clicking instantly and clicking quickly. The results showed that Robin read texts carefully or read the same texts again, rather than reading roughly; unlike Charles. It can mean that Robin was very cautious not to make mistakes and wanted to comprehend instructions before beginning tasks. I suggest therefore that their individual styles or preferences should be considered, when it comes to applying RuneScape game as a tool of learning English to the classroom.

9.2.2 Verbalising

I explained why I use the term verbal reports for the data of the participants' saying out loud instead of the term think aloud in section 6.4.2. Based on the outcomes of the pilot studies (see section 6.5.2), I asked participants to verbalise their thoughts in the main research. The observation data obtained from each participant was inputted into the observation analytic framework, divided into three categories of verbalising: asking me question, muttering to themselves and questioning themselves. When they asked me questions, I politely declined to answer, just smiling and shaking my head. Based on those categories, I describe some patterns I found and present the appropriate examples, in which participants said in Korean. I have translated Korean into English, using square brackets [ ]. I translated word for word, so some parts seemed to be not natural.

Asking Me Questions to Guess the Tasks

In some cases, participants asked me questions when guessing what they had to do to complete the tasks after reading the texts of the instructions. They interpreted the instructions and asked me to confirm whether their interpretation was correct. In example 9.1, Robin asked me a question after reading aloud the sentence in the Hint section, *'Go to a crayfish fishing spot',* when guessing the action of the 'Aren't They Supposed to be Twins' task. As I mentioned above, I refused to comment, just smiling and shaking my head.

Example 9.1: [*'Is this mission to catch fish, right?'*] (Robin)

Robin predicted that he needed to catch fish by reading the instruction to go to the fishing spot and asked me to check for confirmation of his guess. Although I did not answer his question, his prediction was correct.

In example 9.2, Steve asked me questions when he was unable to understand the instruction text to get out the catacomb after dying from fighting with Caitlin (NPC) in 'Blood Pact' quest.

Example 9.2: ['*What is this?', 'Is it said that I can live for only five minutes?'*] (Steve)

Steve was unable to solve the task at the first attempt, although he read the instruction. He then tried to guess the meaning of the instruction and asked me to confirm whether his guess was correct. I declined to answer the question, by shaking my head politely. Actually, the task was not related to the timing, but the damage to the avatar: if his avatar got full damage by the opponent, automatically he died. His guess was incorrect.

In example 9.3, Robin asked me questions when guessing the action of 'The Restless Ghost' task after reading the conversation text with Father Aereck (NPC).

Example 9.3: [*'Am I supposed to get rid of the ghost, right? But how should I do?'*] (Robin)

Along with the Hint section, sometimes NPCs also gave instructions what to do for the task in the conversation box. Robin tried to guess the mission to get rid of the ghost and his guess was correct, but I just smiled and shook my head to refuse to comment. Although he was unaware of the way to do that in the beginning, he read the instruction repeatedly (a strategy described above in section 9.2.1) and found a way to work out this task.

Muttering to Themselves for Commenting to Themselves

The first category of verbalising was that participants simply muttered to themselves while carrying out tasks. In example 9.4, Daniel shouted and muttered to himself when the 'Cutting Edge Technology' task was completed. Example 9.5 shows that Daniel almost shouted to himself when 'Armed and Dangerous' task was completed.

Example 9.4: [*'Wow, I've done it! It has been done through translating the hints.'*] (Daniel)

Example 9.5: [*'Wow, it's done accidentally.'*] (Daniel)

The two examples of 9.4 and 9.5 showed that Daniel was muttering and shouting something that commented to himself on his progress. He was so pleased to have completed the tasks successfully.

Muttering to Themselves to Guess the Tasks through Context

In some cases, participants muttered to themselves when guessing what they had to do to figure out the tasks, by considering the context. In example 9.6, Charles muttered to himself when guessing the action of the 'Raise the roof' task by looking at the flag icon, but he guessed wrongly. He guessed that he had to make a new flag, but the actual task was to raise the flag on the roof.

Example 9.6: [*'Ah, I can know… I should make a new flag or something else…'*] (Charles)

The example 9.6 showed that Charles tried to guess what they had to do to solve the tasks by inferring the clue, such as a flag icon.

Questioning Themselves and Muttering to Themselves to Guess the Tasks

Sometimes, participants muttered to themselves when guessing what they had to do to carry out the tasks successfully after reading the instruction texts. They tried to guess the missions of the tasks by paraphrasing the instructions on their own ways. In example 9.7, Kathy muttered to herself what she understood after reading the text in the Hints section of the 'Handicraft' task.

Example 9.7: [*'I think that this task would be to make leather gloves.'*] (Kathy)

Kathy tried to guess the mission of the task through reading the instruction and revealed her guess by muttering to herself. Her guess of making leather gloves was the correct one.

In examples 9.8 and 9.9, Steve muttered to himself when guessing the action of the 'The Restless Ghost' task after reading the conversation text with The Restless Ghost (NPC).

Example 9.8: [*'Ah, I am supposed to find the place for mining. If I found the skull at the mine, it might be so horrible.'*] (Steve)

Example 9.9: [*'Ah, I was supposed to keep on mining…*'] (Steve)

Through reading the instruction from NPC, the first guess of Steve's (example 9.8) about finding mining place was right. In the same task, the second mission (example 9.9) was to find a skull around the mining spot, but he guessed that he was supposed to keep on mining. His second guess was wrong, so it took a while to complete this task.

Sometimes, participants asked questions themselves when guessing the actions of the tasks after reading the instruction texts. They tried to guess the missions of the tasks by interpreting the instructions and questioned themselves to check with themselves. In example 9.10, Robin questioned and muttered to himself after reading the sentences in the chat window of 'Adventurer's Log' task.

Example 9.10: [*'Chopping down a log or lighting it fire?'*] (Robin)

Robin was not sure whether the mission of the task was to chop down a log or light it, although reading the text. To identify whether his understanding the text meaning was right, he asked this question himself. Actually, both of them were correct missions: after chopping down a log, he had to light it. Although he hesitated in the beginning, soon he realised that he needed to do both of missions.

Numbers of Verbalising by Participants

I counted the numbers of occurrences when participants verbalised in playing RuneScape. Table 9.1 presents them in table form, showing category of verbalising in the first column and the results of each participant in the next columns.

Table 9.1 Numbers of Verbalising

Category of Verbalising	Daniel	Kathy	Steve	Charles	Robin
Muttering to themselves	5	10	12	11	6
Questioning themselves	3	15	10	12	6
Asking me questions	0	7	2	1	7
Total	8	32	24	24	19

The results show that Kathy verbalised 32 times, the most frequently; Daniel did this 8 times, the least. There was a huge gap between two of them. I suppose that their personalities could be the cause of these results. This is because when I was observing their playing the game, I noticed that Kathy tended to be sociable and

talkative, whereas Daniel tended to be careful and taciturn while taking part in my research. This suggests that personality should be considered when using verbalising as evidence of reading strategies, or verbalising items as reading strategies themselves in the classroom or further research.

9.2.3 Reading Texts Aloud

All participants read the texts aloud in English when they encountered the texts while playing RuneScape. The places they read the texts aloud were: Hints section; Description section; chat window; chat dialogue box with texts typed by a player; and conversation box with NPCs. These results indicated that they were reading the texts in a variety of places; whereas their reading in the results of clicking (see section 9.2.1) and verbalising (see section 9.2.2) was limited to, in large part, the Hints section. Here, I present the patterns of reading texts aloud according to these places and the appropriate examples.

Reading Texts Aloud in Hints and Description Sections

Participants read texts aloud in English in the instruction sections, such as Hints and Description sections, which gave information or hints what and how to solve the tasks. In example 9.11, Daniel read a sentence aloud in English in the Hints section of the 'Must be Funny in a Rich Man's World' task.

> Example 9.11: *'You can quickly access what you're owed by right-clicking on Jack and choosing 'Claim-rewards'.'* (Daniel)

Daniel was reading this sentence carefully and started reading it aloud. He then tried to translate aloud the sentence (see below example 9.22). Here, he used reading strategies of reading texts aloud and translating.

In examples 9.12 and 9.13, Steve read aloud sentences in the Description sections of 'Prayer Point Power' and 'Grab the Cash' tasks when reading them carefully.

> Example 9.12: *'Restore your Prayer points.'* (Steve)

Example 9.13: *'There's small pile of coins on the ground near Explorer Jack's house. Click on it to pick it up.'* (Steve)

Steve read aloud the short sentence of example 9.12 and the slightly longer sentence of example 9.13. He did not pause over any particular word to find the Korean meaning or try to translate the sentences.

In examples 9.14 and 9.15, Robin read aloud the long and full texts in the Hints section, carrying out the tasks of 'Rest Up' and 'Clay of Champions', respectively.

Example 9.14: *'Running drains your run energy. When your energy is used up, you cannot run until it returns. You can restore run energy by walking, by resting on the ground, or by resting by a musician. Resting will double your restore rate; resting by a musician will triple it. To rest by a musician, right-click on him or her and choose Listen-to.'* (Robin)

Example 9.15: *'Get a pickaxe (you can get one free from Bob's Brilliant Axes). Head east out of Lumbridge and cross the bridge. Follow the road north until you reach a t-junction. Head west along the road until you reach the entrance to the city of Varrock. From here, head directly west to reach the mining spot. Prospect the rocks to find the clay and then use your pickaxe on it.'* (Robin)

Robin showed the high frequency of reading aloud (see Figure 9.3) and reading the texts carefully, according to the numbers of clicking after time enough to read the text thoroughly (see section 9.2).

Reading Texts Aloud in Chat Window

Sometimes, participants read aloud the texts in English of notice messages in the chat window. In example 9.16, Kathy read aloud a sentence of the notice message after finishing 'The Blood Pact' task successfully.

Example 9.16: *'Congratulations! You have completed the Blood Pact.*' (Kathy)

Kathy read out loud this sentence when popping up on the screen. Her smile

showed that she was pleased when accomplishing this task.

In example, 9.17, Robin read aloud the notice message in English in the chat window, doing 'The Cutting Edge Technology' task.

> Example 9.17: *'To forge items use the metal you wish to work with the anvil.'* (Robin)

Robin managed to get to the anvil to do the mission of making a bar. When he was unable to use the anvil and make a bar, he tried to click some icons randomly. At that time, this message popped up to give information like the Hints section. Because he noticed the importance of this clue to solve the problem, he read this sentence out loud.

Reading Texts Aloud in Chat Dialogue Box

Only Steve read aloud the texts in English typed by other players in the chat dialogue box. Examples 9.18 and 9.19 show the sentences Steve read aloud.

> Example 9.18: *'Visit therunescapestore.com $ 50/m Safe and Secure.'* (Steve)

> Example 9.19: *'Do u want 3k for free no joke.', 'Come on it will protect you.'* (Steve)

Some players typed some sentences in an attempt to make the other players join the chatting. These were not conversation with Steve. He was interested in the contents of other players' typing, because he was unable to concentrate on carrying out a task by moving his attention to the chat dialogue box.

Reading Texts Aloud in Conversation with NPCs

In some cases, participants read texts aloud in English in the conversation with NPCs. Like the Hints section, sometimes, the conversation with NPCs contained information or direction what and how to do for completing a task. Participants read aloud the sentences when they identified that the sentences were significant

information when reading carefully. In example 9.20, Charles read a sentence aloud in the conversation with Father Aereck (NPC) of 'The Restless Ghost' task.

Example 9.20: *'I need someone to do a quest for me.'* (Charles)

When Father Aereck (NPC) asked Charles to do a mission, he read this sentence alouod and found the word "quest" in the dictionary.

In example 9.21, Robin read aloud sentences in the conversation with Xenia (NPC) when reading carefully in 'Blood Pact' quest.

Example 9.21: *'Some cultists of Zamorak have gone into the catacombs with a prisoner. I don't know what they're planning, but I'm pretty sure it's not a tea party.'* (Robin)

In this quest, the sentences in the conversation with Xenia (NPC) showed more information and hints than in the Hints section.

The Numbers of Reading Texts Aloud by Participants

I counted the number of occurrences of the participants' reading texts aloud. Figure 9.3 below indicates these results in a graph form. Steve read texts aloud 16 times most frequently; Robin did 15 times; Charles and Daniel did 3 times; and Kathy did 2 times least. The result of Kathy was opposed to her verbalising result: distinctively, she verbalised 32 times most. These results showed that the participants had their own preferred styles. It suggests that individual preferences such as personal styles should be considered when using reading aloud as a reading strategy for Korean children's English learning in the classroom or further research.

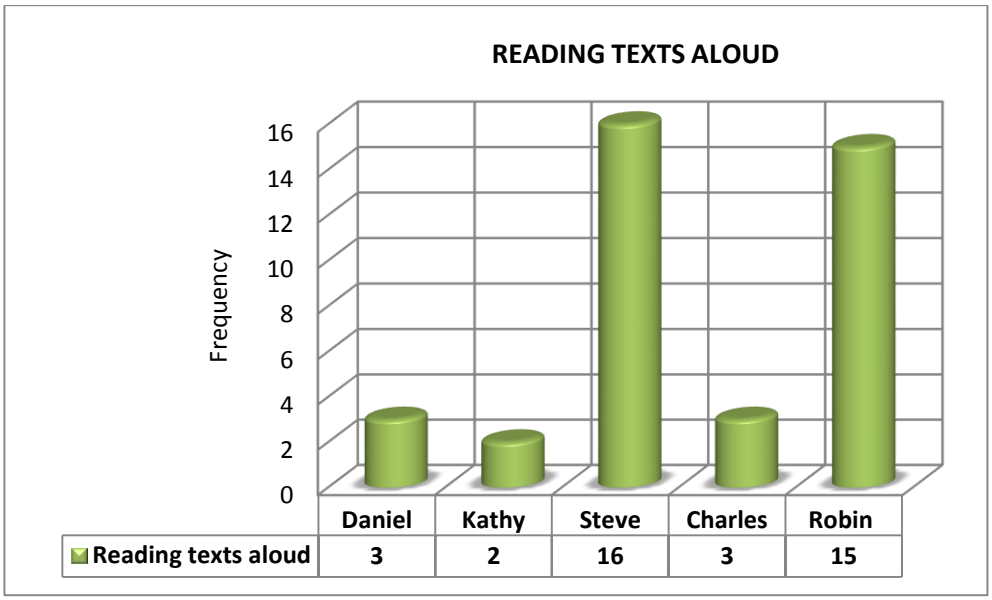


Figure 9.3 The Numbers of Reading Texts Aloud by Participants

9.2.4 Translating

All participants tried to translate English sentences aloud into Korean. They translated the texts in the Hints section; Description section; and conversation with NPCs. According to the places of translation, here I present the patterns and examples. I provide them with the original English sentences in the first row; their original pronunciation of Korean in the second row; and translation Korean into English in the third row. I translated word for word and some parts looked awkward so I used square brackets.

Translating Texts in Hints Section

The participants translated the texts aloud into Korean in the Hint section. In some cases, some of them translated the sentences incorrectly. In example 9.22, Daniel translated a sentence aloud in the Hints section of the 'Must be Funny in a Rich Man's World' task.

> Example 9.22: YOU CAN QUICKLY ACCESS WHAT YOU'RE OWED BY RIGHT-CLICKING ON JACK AND CHOOSING 'CLAIM- REWARDS'.
> (Korean) '*Neo-neun hal su it-da. Ppa-reu-ge ek-se-seu o-reun-jjok kkeul-rik ri-wae-jeu…*'
> (English) [*'You can do. Quickly access right-click rewards….'*] (Daniel)

As noted above, Daniel first read aloud this sentence in English (see above example 9.11) and then tried to translate it partially. Although his translation seemed to be imperfect, he followed the instruction and cleared this task.

In example 9.23, Robin translated a sentence aloud into Korean in the Hints section of the 'Om Nom Nom Nom' task.

> Example 9.23: CLICK ON AN EDIBLE ITEM IN YOUR INVENTORY TO CONSUME IT AND RESTORE LIFE POINTS.
> (Korean) '*In-ven-to-ri-e-seo mwaen-ga meok-eo-bo-ja*'
> (English) ['*It is to eat something in the inventory.'*] (Robin)

Before translating this sentence, Robin read it aloud. He paused over the word "edible" and pronounced it in English. He then found its Korean meaning in the dictionary. This word is not basis and popular one for elementary school students. After finding the Korean meaning, he tried to translate in part. Although his translation was imperfect, he focused on the action of that mission and he carried out the mission properly.

In example 9.24, Kathy translated a sentence aloud into Korean in the Hints section of the 'Log-a-rhythm' task, but she translated it incorrectly.

> Example 9.24: YOU CAN CUT ONE FROM A NORMAL TREE IF YOU HAVE A HATCHET.
> (Korean) *'Na-moo-be-myun hat-chit Jun-da-neun-de…'*
> (English) [*'It is said that if I cut a tree, a hatchet would be given to me.'*] (Kathy)

Before translating this sentence, Kathy tried to guess the Korean meaning of the word "normal tree" as one item. She also asked herself a question: ['*Where should I find a normal tree?*'] (I translated Korean into English) when she was unable to complete this task with several trials. Although she tried to translate this sentence, her translation was incorrect. She misunderstood the sentence: the relation between the cause and effect has been changed. She needed a hatchet first, but

she thought that cutting a tree was the first thing to do. Because of this misunderstanding, she wasted a lot of time to do this mission correctly.

In example 9.25, Steve translated a sentence aloud into Korean in the Description section of the 'Bovine Intervention' task.

> Example 9.25: HAVE A COWHIDE TANNED INTO SOFT LEATHER.
> (Korean) '*soei-ga-juk-eul du-deu-ryeo-seo bu-deu-reo-un ga-juk-eu-ro man-deun-da*'
> (English) [*'Beating a cowhide makes it soft leather'*] (Steve)

Steve translated the Description section text that provided instruction for a successful completion of the task. Before translating, he pronounced the word "tan" in English and found its Korean meaning in the dictionary. He then read aloud the Korean meaning: *'moo-doo-jil'* (in Korean). He was unable to understand the exact meaning because this Korean meaning was very hard to understand for Korean children, even for Korean adults. He also found the word "cowhide" in the dictionary and read aloud its Korean meaning: *'soei-ga-juk'* (in Korean). He then started translating, but it was incorrect. The focus of this mission was on finding a cowhide, which was already turned into soft leather. However, he misunderstood that the focus was on beating a cowhide to make soft leather. It caused that it took a while for him to complete this mission properly.

In example 9.26, Charles translated a sentence aloud into Korean in the conversation with Restless Ghost (NPC) of the 'The Restless Ghost' task.

> Example 9.26: I'M PRETTY SURE IT'S SOMEWHERE NEAR THE MINING SPOT SOUTH OF HERE.
> (Korean) '*Hae-gol-eul chat-eu-ra-go? Nam-jjok chae-kwang-geun-cheo-e-soe?*'
> (English) [*'Looking for the skull? Near the mining spot in the south?'*] (Charles)

Charles first found the word "pretty" in the dictionary and confirmed its proper meaning ("quite"), nodding his head. He also found the word "mining" in the

dictionary. He then translated this sentence. The focus of this mission was on finding the skull near the mining spot. He knew that “it” meant the “skull” in the sentence. His translation was proper, although not perfect.

Participants’ translation occurred in the instruction sections: Hints section; Description section; and the dialogue box of conversations with NPCs. The findings showed that they concentrated on translating them into Korean, in order to understand the sentences providing information to carry out tasks successfully.

9.2.5 Typing

Whilst playing RuneScape, two participants, Steve and Robin, typed English texts while trying to chat with other players. I observed their behaviours of typing words or sentences into the chat dialogue box. Steve typed English texts to chat with a player (ID: Cruel1813) who spoke to him first in the chat dialogue box. Example 9.27 shows the full texts. Their English did not look grammatical.

Example 9.27: Cruel1813: Do u want 3k for free no joke
Steve: **No**
Cruel1813: why not
Steve: **My mind**
Cruel1813: Its free with rainbow boots.
Steve: **No Thank you**
Cruel1813: Come on it will protect you
Cruel1813: And its not far
Cruel1813: Just follow me
Steve: No im ok
Steve: **bye**

As opposed to Steve’s typing action, Robin typed English texts actively into the chat dialogue box for chatting with other players. For example, when he was looking for an anvil for a long time in order to finish the task, he typed the texts to ask the location of an anvil, and the way to use it, to other players, but none of them replied: *Hey guy, Please tell me where anvil is* and *How to use anvil???.* After finding the anvil, Robin was waiting for his turn in front of it but someone cut into

the queue, so he typed: *Im first.* When he felt a little bit annoyed because a player was standing in front of the anvil for a long time, he tried to chat with him: *Why are you staying here????, Hi I'm Korean, Where are you from??? Please say.* Then he got the reply from the player 'Magaden' but he was unable to understand it, so he typed: *wWhat?????#.* In another example, he typed a sentence in order to ask other players to let him know the location of the ghost's skull whilst conducting 'The Restless Ghost' task: *Did you see my head?*

9.2.6 Development of Reading Strategies

Across sessions, each participant showed the different results relating to reading strategies of verbalising, reading aloud, translating and typing; Kathy and Robin showed the consistent use of reading strategies; Steve and Charles have been using them less and less; and Daniel has hardly used reading strategies. Daniel used few those reading strategies across sessions; however, he showed the most frequent clicking behaviours of clicking after a time and clicking the same text, which could indicate his approach to reading. It meant that he was concentrating on reading the texts. Robin has actively involved with the use of reading strategies across sessions and the high frequency of clicking after time. With these results, it is very hard to conclude that their use of reading strategies has been developed across sessions. Rather, the frequency of each reading strategy varied for each participant and each task content. It seemed that participants had individual differences and that they selected a proper reading strategy in each task. This suggests that their development of reading skills depended on individual preferences and task contents, like the development of vocabulary learning (see section 8.2.4).

9.3 Findings of Interview Data

As discussed in Chapter 6, the purpose of the interviews with Korean young learners, the English teacher and the head teacher was to identify their perceptions about learning and teaching English in the classroom and about playing computer games and RuneScape as an English learning tool for Korean elementary school students after participating in this research. This section describes findings from interview data and present examples. The answers of interview questions are presented in Appendix U.

9.3.1 Interview Findings from Learners

I carried out interviews with four informants: Daniel, Charles, Kathy and Steve. The provided examples were originally in Korean, so I translated them into English, using square brackets [ ]. I attempted to make a faithful translation of the original, so some parts may be somewhat awkward.

Perceptions about English Language Learning in the School

In South Korea, middle school or high school students usually regard English learning as an important subject to obtain a high mark for school assessment and for university entrance exam. My informants appeared to believe in the necessity of learning English clearly for practical use. Example 9.28 shows their perceptions why they have been learning English.

> Example 9.28: [‘We need to learn English because world people use English as a world common language.’] (Daniel)
> [‘A great number of people use English, especially, when going abroad for study or business trip.’] (Charles)
> [‘I think that I need English in the future. A great number of people use English.’] (Steve)
> [‘I want to study abroad when she grew up.’] (Kathy)

The informants gave positive responses about how to learn English in the classroom. In example 9.29, they said their favourite ways and strong points carried out by their teachers.

Example 9.29: [‘I like the game using paper cards inside the textbook.’] (Kathy)
[‘I like the use of computer to show helpful resources.’] (Charles and Steve)
[‘I want to give positive feedback of using Power point which makes me engage in learning.’] (Daniel)
[‘My teacher used Power point to play games: For example, students were able to select a quiz among A, B, C, D items on Power point, answer the question and gain points.’] (Steve)

About the best method they perceived for Korean elementary school students, Daniel and Charles said that playing games would have been better. Kathy and Steve said that they were satisfied with the current methods. In particular, Charles said that using computer games or edutainment games would have been better because playing games was interesting.

Perceptions about Using Computer Games for English Learning

The use of computer by English teachers has become common in the English classroom in the Korean context. I asked my informants how they considered computer games for English learning. Kathy said that she had never played computer games for learning English before this research, so she did not have idea about this question. In example 9.30, they gave positive answers, except Kathy.

Example 9.30: [‘Playing computer game is exciting.’] (Daniel)
[‘People are able to play the game at the same time.’] (Charles)
[‘I like it. Learning English was boring, but playing the game could make it fun.’] (Steve)

Example 9.31 showed that all learners gave positive opinions about the use of computer games for Korean children’s English learning.

Example 9.31: [‘Children are likely to enjoy playing computer games.’] (Charles)
[‘Well, I think it is a good idea.’] (Kathy)
[‘Yes, it seems to be fine.’] (Daniel)
[‘Yes, it is easy.’] (Steve)

The advantages of using computer games were fun, ease and repetition. My informants' responses are shown in example 9.32.

> Example 9.32: ['I am able to remember the words in the game well because they turned up repeatedly during the process of playing the game.'] (Kathy)
> ['Playing games was easy.'] (Steve)
> ['Because I am fond of playing games.'] (Charles)
> ['Children are able to learn English having more fun and pleasure.'] (Daniel)

About the question of disadvantages of using computer games, Charles answered that it had no drawback. This implies that he was very fond of playing computer games, apart from this research. The drawbacks the other informants mentioned were that they could be addicted to them and they could lose interest when it was hard to complete the tasks. All replies are shown in example 9.33.

> Example 9.33: ['Children would be able to lack concentration on their studying in the classroom, watching other pupils' playing the game.'] (Kathy)
> ['They would be addicted to it.'] (Daniel)
> ['Their eyesight would get worse and they would be annoyed when they are unable to solve the task successfully.'] (Steve)

Although the informants gave positive opinions about using computer games, they were aware of its shortcomings at the same time.

Opinions about Playing RuneScape for English Learning

After taking part in this research, all learners gave positive views about English learning in the context of RuneScape. Specifically, in example 9.34, they said that playing RuneScape was helpful to learn vocabulary.

> Example 9.34: ['I learned vocabulary by looking up the unknown words in the dictionary.'] (Daniel, Charles and Steve)
> ['It was helpful to find the unknown words because there were a great number of English words in RuneScape.'] (Kathy)

About reading, Daniel and Charles said that they felt that their reading abilities were improved and that playing RuneScape was helpful. All informants gave positive views about using RuneScape for English learning for Korean elementary school students. They said that in terms of finding the unknown words and reading the sentences, playing RuneScape would be helpful. In particular, Kathy suggested that writing down the unknown words to the word notebook would be helpful after looking them up in the dictionary. This was because the way of memorising English words by carrying around the word notebook has been popular in the Korean context. I mentioned to her that the word list at Yahoo online dictionary automatically saved the searched words, if we logged on. She then reminded that she had logged on the dictionary to find the words. All informants said that they would recommend playing RuneScape to their friends and that they would like to keep playing this game after this research, although Kathy suggested that girls would not like these kinds of games. The reasons are shown in example 9.35.

> Example 9.35: [‘Playing RuneScape was interesting.’] (Daniel and Charles)
> [‘Completing the quests or tasks was very exciting and realistic.’] (Steve)
> [‘It was helpful to learn English because the language in RuneScape was English only.’] (Kathy and Charles)

In terms of the improvement of English, Kathy and Steve said that there was no difference between before and after this research. Daniel and Charles showed positive responses in example 9.36.

> Example 9.36: [‘I saw the same English words in his school exam, so participating in this research was helpful to gain good achievement at school.’] (Daniel)
> [‘My English score seemed to be higher.’] (Charles)

About the interest about English learning, all learners said that their interest increased slightly more than before this research. In particular, Charles said that although he had disliked English, he has been becoming more interested. In terms of the limitations of RuneScape, only Daniel said that RuneScape had no problem

for English learning. Example 9.37 shows the limitations the other informants replied.

> Example 9.37: [‘Some hints, such as pictures like arrow, were very easy to follow without reading the instruction, so they could be a problem and they were not necessary.’] (Kathy)
> [‘RuneScape was based on English only, so if children did not know English at all, it would be difficult for them to understand.’] (Charles)
> [‘He was very annoyed when he was unable to understand English words or sentences because RuneScape had English only’] (Steve).

The major limitation was English only environment of RuneScape, in which participants might have felt frustrated when they were unable to understand English. This shows that the RuneScape’s English only context could be both a strength and a weakness for Korean young learner’s English learning.

9.3.2 Interview Findings from the English Teacher

Here I describe findings of interview data from the English teacher. As I mentioned in Chapter 6, although I recorded the learners’ interviews, the English teacher filled in the interview questionnaires during the interview with me, as her preference. The provided scripts were originally in Korean, so I translated them into English. I endeavoured to make a faithful translation of the original, so some parts may be awkward. Her perception about English teaching and learning in Korea was presented in example 9.38.

> Example 9.38: [‘Speaking should be prior to other skills ideally when teaching English as a foreign language. For Korean children, thinking, speaking and writing a mother language was more important than a foreign language because sometimes English could be a threat to their Korean.’]

She suggested that Korean children’s levels in terms of reading and listening should be considered. She said that the appropriate age to begin learning English would depend on the degree of learning English in example 9.39.

> Example 9.39: [‘Kindergarten students could begin learning chants or vocabulary and the first grade of elementary school students could begin learning easy level storybooks.’]

About the best method of teaching English to Korean children, her perception was shown in example 9.40.

> Example 9.40: [‘The more elementary school students spend time learning English, the more their English abilities would be improved. If their spending time was the same, definitely they had to begin with interesting and motivating materials.’]

She suggested that the time Korean children spent and the interesting resources they studied with would be important to improve their English abilities. She showed negative opinions about game activities, saying that there was no correlation between them and only children could obtain a few interesting words or expressions in the context. She also gave strongly negative opinions about the use of computer games and RuneScape for Korean young learners’ English learning. Although she had negative views, in example 9.41, she pointed out the advantages.

> Example 9.41: [‘Children are usually immersed in the games unlike adults who tried to reading the sentences.’]
> [‘They are not afraid of thinking or speaking English.’]
> [‘Children tend to like the game.’]

About the improvement of participants’ English ability or interest in her class, she said that there was no difference between before and after conducting my research. She showed the sceptical views about the use of computer games for English learning, comparing children’s gameplaying with adults’. Example 9.42 shows her opinion.

> Example 9.42: [‘The question arises as to whether or not children would try to increase their reading speed to play the game well, because they tend to understand the game rules or play the game with only picture or movement without reading the texts or instructions: whereas, the adults tended to

concentrate on the reading the texts, not following the flow of the game, so they were unable to enjoy the game itself, unlike children.']

9.3.3 Interview Findings from the Head Teacher

Here I present findings of interview data from the English teacher. As I mentioned in Chapter 6, although I recorded the learners' interviews, the head teacher filled in the interview questionnaires during the interview with me, as his preference. The provided scripts were originally in Korean, so I translated them into English. I tried to make a faithful translation of the original, so some parts may be awkward. About his opinions about English learning in Korea, he said that Korean children needed more output activities, such as speaking and writing when learning English. Example 9.43 shows his view about the age to start learning English in Korea and children's motivation to learn language.

Example 9.43: ['The earlier children exposed to the English environments, the better they start to learn English, but only after they completed their reading comprehension in a mother language.']
['Their motivation of learning a foreign language was stronger than adults, in terms of the "culture".']

Unlike the English teacher, he gave positive views about using game activities and computer games for Korean children's English learning, considering the advantages in example 9.44.

Example 9.44: ['Most of Koreans had a preconception that learning English would be very hard, so game activities would be very good to get rid of this preconception.']
['The numbers of students of using the computer has been increased.']
['The younger students tended to be used to playing computer games.']
['Children could become familiar with English pragmatically through playing computer games.']

Although he supported the use of computer games, he also showed his concern. He said that the literacy part of learners could not be improved. When it comes to using RuneScape for English learning, he gave positive views in example 9.45.

Example 9.45: [‘It would be helpful for Korean children to learn English, because it could be a kind of tool for English learning.’]

Although he advocated using computer games for Korean children’s English learning, he suggested that learners’ personalities and background knowledge should be considered in example 9.46.

Example 9.46: [‘It would be different, depending on the student’s personality: For example, if a student was passive, he or she could think of playing the game as a difficult thing.’]
[‘However, if they did not have enough background knowledge, there could be a limitation when they understood in-depth contents.’]

9.4 Summary

This chapter has presented findings from observation data about reading strategies, which participants used when encountering the texts. The reading strategies presented and evidenced in this chapter are: clicking, verbalising, reading text aloud, translating and typing. It then has presented findings from interview data. The next chapter discusses findings from text data and observation data to answer the research questions. It also discusses the findings of interview data from learners, the English teacher and the head teacher, as supporting data.

Chapter 10 DISCUSSION OF FINDINGS

10.1 Introduction

This discussion chapter presents some answers to the research questions to justify how the answers are compatible with existing knowledge in my topic area. At this point, it may be helpful to repeat the research questions.

RQ1. *Do learners learn new vocabulary when playing RuneScape?*

RQ2. *What kind of reading do learners do with RuneScape?*

10.2 Research Question 1

In Chapter 8, I have already examined my findings that came out of the observation data with regard to vocabulary strategies. To answer the first question, I discuss three vocabulary strategies: looking words up in the dictionary, verbalising vocabulary and guessing word meanings verbally.

10.2.1 Looking Words up in the Dictionary

Looking words up in the dictionary (Cho 2011; Gu and Johnson 1996; Nation 2004; Nation 2005; Schmitt 1997) was a vocabulary strategy my participants used. Dictionary use is to enable learners to make use of information (Nation 2005). To make use of information in dictionaries, my participants tried to find unknown word meanings through looking them up in dictionaries, when encountering new vocabulary during playing RuneScape. Usually participants looked up words in bilingual dictionaries to find correct meanings in Korean. It relates to Schmitt's (1997) determination strategy in discovery strategies: bilingual dictionaries. Interestingly, Robin was the only one who used a monolingual dictionary, trying to identify the meaning of "anvil", by looking it up in the monolingual dictionary ("iron block") once, after failing to understand its meaning in Korean first. It is related to

Schmitt's (1997) determination strategy in discovery strategies: monolingual dictionaries. As I showed in Chapter 8, my participants showed three kinds of actions in using the dictionary: searching for new vocabulary, searching for substitutable vocabulary and repeating searches for vocabulary.

The new vocabulary they searched for are likely to be unfamiliar to them. This is because the words are not included in the essential and basic vocabulary for Korean elementary school students recommended by the Ministry of Education, and, as I have explained, they have very little exposure to English outside school. I assume that if they knew only the essential vocabulary, they would be able to read the school textbooks, but it would be hard to read diverse and extensive materials on the Internet or even English storybooks. Many children's storybooks consist of a wide range of vocabulary, along with low frequency vocabulary, such as names of jungle animals. As a way of improving Korean children's vocabulary abilities, storytelling has been popular in schools and in the private sector. In order to read storybooks, they need a bigger variety of ways to develop their vocabulary abilities than learning only essential vocabulary in the classroom. I suggest therefore that my findings would indicate the potential of playing games such as RuneScape and using internet materials in a structured way to engage Korean children in learning new and diverse vocabulary.

My participants took action by searching for substitutable vocabulary. When the unknown words were not in the dictionary, they endeavoured to find the partial component of the word and infer the meaning from the part. This is consistent with Gu and Johnson's (1996) cognitive strategy of using linguistic cues. Another way was to find a different part of speech to assume the meaning of unlisted word in the dictionary. It goes with Schmitt's (1997) determination strategy in discovery strategies: analyse parts of speech. Although they used dictionaries to search for vocabulary, it is possible that they could guess the unknown vocabulary meaning from similar parts of the vocabulary they already knew. Therefore, this strategy could be extended to the strategy of guessing the meanings of unknown words without looking them up in the dictionary.

The participants repeated searches for vocabulary. This is an example of Gu and Johnson's (1996) extended dictionary strategies in cognitive strategies. This repetition seems to be an example of memory strategies, which help children to 'remember/ store information' (Pinter 2011: 27). Pinter writes that 'the first memory strategy to develop is rehearsal or repetition for memorisation' (p. 27); I was unable to find the act of rehearsal from my participants, which means 'repeating the information in some way orally or in writing' (p. 27). Based on this, the reason why the participants searched for vocabulary again might be that they were unable to remember the word meanings they found, but they may have considered the words to be important ones in understanding the texts.

From my own learning experience and teaching experience in Korea, I conjecture that the strategy of looking up vocabulary in the dictionary is a basic strategy for beginners of learning English. My participants looked up the unknown words in the dictionary whilst reading the texts in RuneScape. They, being at a beginner level of English learning, applied this strategy of looking up the unknown words in the dictionary to learn new vocabulary. It shows that they, in online reading context, used the same vocabulary strategies as the traditional model of vocabulary strategies in the context of reading printed books.

10.2.2 Verbalising Vocabulary

The participants verbalised vocabulary. I observed the verbalisations my participants made whilst playing RuneScape to identify whether they learned the new vocabulary they looked up in the dictionary; if so, what kinds of actions they took. When encountering unknown words, they displayed their own ways of learning vocabulary: saying vocabulary aloud in English, saying English spellings aloud, and reading aloud vocabulary meanings in Korean after looking them up in the dictionary. All of my participants tried to say words aloud in English after looking them up in the dictionary or without looking them up in the dictionary. This is an example of the Schmitt's (1997) memory strategy of saying new words aloud. The reason why they said vocabulary aloud in English might be that they were doing it unconsciously or habitually as an extension of practising verbally in their

schools or private English institutes. It enabled me to discern that they paid attention to particular new words by saying them in English. The behaviour of saying vocabulary aloud in English while playing the game showed that it could be a way of learning new words and keeping them in their memory. Only two of my participants (see section 8.2.2) said out loud the letters of the English word before searching for them in the dictionaries. This corresponds to Schmitt's (1997) memory strategy in consolidation strategies: study the spelling of a word. It seems that they tried to memorise spellings to make it easier to find them in the dictionaries. Saying English spellings aloud enabled me to discern that they were learning new vocabulary. All of my participants read aloud vocabulary meanings in Korean after searching for unknown words. This strategy could be involved in the category of Gu and Johnson's (1996) extended dictionary strategies in cognitive strategies. It seems that they verbalised vocabulary meanings in Korean in order to recognise and remember them clearly, to facilitate recalling them. Their reading aloud vocabulary meanings in Korean suggested that they were learning new vocabulary. I found that my participants said vocabulary aloud in English, said English spellings aloud and read aloud vocabulary meanings in Korean after looking them up in the dictionary, while playing the game. My findings suggested that they were learning new vocabulary. I would argue therefore that verbalising vocabulary can be a way to recognise that Korean children are learning new vocabulary in RuneScape. They were using strategies from their classroom context in this new learning context.

10.2.3 Guessing Word Meanings Verbally

My participants guessed word meanings (Cho 2011; Gu and Johnson 1996; Nation 2005; Schmitt 1997) verbally. In the beginning, when encountering new words, participants tended to search for them in dictionaries. After carrying out several sessions, however, they started to guess vocabulary meanings, without using dictionaries. They showed the actions of guessing word meanings: asking me word meanings and questioning themselves or muttering word meanings to themselves. Their guessing was based on their background knowledge, so it can be related to Gu and Johnson's (1996) guessing strategy: using background knowledge. One

indicator of their guessing was to address some questions about word meanings to me, as participant observer and researcher (Schmitt 1997). For their questions, I refused to answer the questions, smiling and shaking my head politely. All participants asked me, but the way of they asked varied. This relates to Schmitt's (1997) social strategy in discovery strategies: ask teacher for the new word. Some asked me the meaning of vocabulary items directly (see Example 8.1 in section 8.2.3). In some cases, participants asked me questions to check whether their guessing of the Korean meaning was correct. Some found its Korean meaning in the dictionary, but they were unable to understand the meaning and asked me questions, guessing the meaning. Some asked me questions without finding its Korean meaning in the dictionary. Sometimes, they guessed the Korean meaning correctly and sometimes, incorrectly (see examples in section 8.2.3). They used or did not use the dictionary to find the correct Korean meaning, according to their learning styles and individual preferences. Another indicator of participants' guessing word meanings was to questioning themselves or mutter to themselves. The way of questioning or muttering word meanings to themselves varied. In some cases, they tried to recall word meanings and work out whether their guess about the word meaning was correct. Sometimes, they recalled them successfully and unsuccessfully. Sometimes, their guess was correct and incorrect. Some did not find its meaning in the dictionary, although their recall was unsuccessful or their guess was not correct. It depends on individual preferences and different styles. Through my research, I had enough data based on their verbalising to enable me to recognise that they were trying to learn vocabulary by way of guessing word meanings. This strategy overlaps with the traditional model of ocabulary strategies. This suggests that Korean young learners can use the vocabulary strategy of guessing word meanings in the online reading context such as RuneScape. It can help them engage in learning new vocabulary in their own way. They have their own different preferences. The context of Runescape is varied and flexible enough to allow children to use their preferred strategies.

10.2.4 A Proposed Model of Vocabulary Learning Strategies in RuneScape

Here, I propose a new model of vocabulary learning strategies for Korean EFL young learners. It was based on the previous classification (see Chapter 3) and the strategies used by my participants in the research. Although it is not possible on the basis of this research to say whether metacognitive strategies are used, they are involved in this model. This is because I assume that they could happen at any stage of learners' vocabulary learning process. The vocabulary learning strategies the participants used were found from the traditional model, which was included in this new model. They are as follows:

DISCOVERY STRATEGIES

- **Determination strategies**: using bilingual and monolingual dictionaries (Schmitt 1997), analysing parts of speech (Schmitt 1997), analysing any available pictures (Schmitt 1997)
- **Social strategies**: asking teacher for the new word (Schmitt 1997)
- **Metacognitive strategies**

CONSOLIDATION STRATEGIES

- **Guessing Strategies**: using linguistic cues (Gu and Johnson 1996), using background knowledge (Gu and Johnson 1996)
- **Cognitive strategies**: extended dictionary strategies (Gu and Johnson 1996) , verbal repetition (Gu and Johnson's 1996; Schmitt 1997)
- **Memory strategies**: saying new word aloud when studying (Schmitt 1997), studying the spelling of a word (Schmitt 1997), using physical action when learning a word (Schmitt 1997)
- **Metacognitive strategies**

10.2.5 Answer to Research Question 1

I discussed the vocabulary strategies shown by participants: looking words meanings up in the dictionary (see section 10.2.1), verbalising vocabulary (see section 10.2.2) and guessing word meanings verbally (see section 10.2.3) to learn new vocabulary. The answer to the first research question is as follows:

RQ 1: DO LEARNERS LEARN NEW VOCABULARY WHEN PLAYING RUNESCAPE?

My answer to RQ 1*: Yes, they learned new vocabulary when playing RuneScape. They used the vocabulary learning strategies of looking words up in the dictionary (searching for vocabulary, searching for substitutable vocabulary and repeating searches for vocabulary), verbalising vocabulary (saying vocabulary aloud in English, saying English spellings aloud and reading aloud vocabulary meanings in Korean) and guessing word meanings verbally (asking me questions and questioning themselves or muttering to themselves) to learn new vocabulary with their own preferred vocabulary learning strategies.*

10.3 Research Question 2

The second research question is about the kinds of reading and reading strategies which my participants used whilst playing RuneScape. In Chapter 9, I presented the findings that came out of the observation data, regarding kinds of reading and reading strategies participants used in the process of playing RuneScape. Through these processes, they showed their own ways of reading and understanding the texts. These ways differ from the reading strategies generally discussed in the ELT literature. In my context, I answer the question according to categories of reading strategies: clicking, verbalising, reading texts aloud, translating and typing.

10.3.1 Clicking and Kinds of Reading

As mentioned earlier, I was unable to find relevant research about clicking and EFL young learners' reading strategies. To answer the second question, I endeavoured to find a relationship between kinds of reading and clicking behaviours. As I discussed in section 4.3.3, on online reading strategies, Huang et al. (2009) investigated their participants' clicking actions; however, their study was different from mine. They studied the clicking of the strategy button to identify which online reading strategy a reader used in an online reading program. The researchers created the reading program and had already set up 15 reading strategies. Both Huang et al. (2009) and Anderson (2003) dealt with the reading speed of online

reading strategies. Huang et al. (2009) made a button of 'the speed of reading' to identify the strategy of 'adjusting reading rate' (p. 23); they recorded this strategy by means of a button the reader pressed. Anderson (2003) considered the reading speed using a questionnaire item of 'I adjust my reading speed according to what I am reading on-line' (p. 16). However, their research methods were different from mine; they did not observe their participants' clicking duration or measure their actual speeds of reading. Clicking actions in my study are not reading strategies themselves; however, they can be possible evidence or a way of measuring reading strategies, which has not been discussed in any major studies of technology in language learning. The connection between types of reading and clicking actions was based on my individual conjectures, but I found relevant literature on correlating eye movement data with mental processing. Frisson and Pickering (2001: 159) used 'the eye-tracking paradigm' in which 'people read sentences (or texts) on a computer screen and the position of their eye is monitored every millisecond (or few milliseconds)'. They suggested that 'the point at which a person is looking is extremely closely linked to the thing that they are currently *thinking about*' and that 'eye movements are extremely sensitive to processing difficulty': for example, 'people tend to fixate a rare word for considerably longer than a common word' (Frisson and Pickering: 159-160). Here, I am assuming that clicking duration relates to the 'gaze duration'; 'the sum of all fixations on the target word prior to an eye movement to another word' (Rayner and Frazier 1989: 781). If participants encountered rare words or difficult mental processing (here reading processing), their gaze durations would take longer. This assumption can be related to careful reading with the long gaze and clicking duration within my research context; when participants encountered unknown words or found difficulties in reading sentences, their eyes fixated on them for longer to read them carefully. Based on this theory, I suppose that clicking instantly without reading the text, could be regarded as "skipping", clicking quickly after reading the text quickly as "scanning", clicking after time enough to read the text thoroughly as "careful reading", and clicking the same text repeatedly as "rereading". Although Anderson (2003) used questionnaires to investigate online reading strategies, he suggested a number of strategies and I have connected them with kinds of reading, which look

similar to mine: the item of ‘when reading on-line, I decide what to ignore’ (p. 17) (skipping); the item of ‘I scan the on-line text to get a basic idea’ (p. 17) (scanning); the items of ‘when reading on-line, I decide what to read closely’ (p. 17) and ‘I read slowly and carefully to make sure I understand what I am reading on-line’ (p. 16) (careful reading); and the item of ‘when on-line text becomes difficult, I re-read it to increase my understanding (p 16) (rereading). Hsieh and Dwyer (2009) studied a “rereading” strategy in online reading strategies. They suggested that the rereading strategy was important for students to help reading fluency and comprehension. This result was informative, although their study was based in the L1 context with university students.

Based on those points, I would interpret kinds of reading as reading strategies. My participants read the texts in their own preferred way of reading by means of clicking behaviours. I interpreted kinds of reading by their clicking actions, considering that clicking led them to do their different kinds of reading. They used the reading strategies of skipping, scanning, careful reading and rereading in RuneScape. As I mentioned earlier, clicking is not a strategy itself; however, I suggest that clicking can be an indicator of reading strategies when Korean children are reading the texts in RuneScape. I tried to fit what I had observed into a traditional model of reading strategies; however, I have found things that do not fit into the traditional model of reading strategies. That is because this process is interactive between skills and ICT and between players.

10.3.2 Verbalising

The three categories of verbalising I found were: asking me questions; muttering to themselves; and questioning themselves. The participants verbalised what they understood when reading the texts; they asked themselves questions or asked me questions when they were unable to understand them, although they had read the texts. As I discussed in Chapter 4, a strategy of asking questions in Yu’s (2010) social strategies, relates to mine. The context of Yu’s (2010) research was close to mine, which studied Korean elementary school students’ usage of reading strategies; however, she dealt with the offline traditional model of reading strategies. As I

discussed in Chapter 4, the studies of Anderson (2003) and Huang et al. (2009) had different research methods. However, their online reading contexts were closely related to mine. Huang et al.'s (2009) online reading strategy of 'asking peers questions' (p. 23) is likely to be related to my strategy of asking me questions. In some cases, my participants asked me questions when guessing how to complete the tasks after reading the instruction texts. They asked me to make sure whether their guess was correct. As mentioned in Chapter 9, I declined to comment, by just smiling and shaking my head. Without my comment, some tried to read the instruction texts again and again to find the way of the tasks (see Example 9.3). This was a mixed process, which was interactive between strategies: verbalising, guessing and rereading. There was no traditional reading strategy that matched with my strategy of muttering to themselves, but it is likely that there would be a relationship between verbalising and reading strategies. In some cases, some muttered to themselves when commenting to themselves on their progress while carrying out tasks (see Example 9.4 and 9.5); or when guessing the tasks through considering the context, such as location or flag icon (see Example 9.6 and 9.7). Sometimes, participants muttered to themselves when guessing the way of the tasks to complete them successfully after reading the instruction texts (see Example 9.8, 9.9 and 9.10). Their muttering occurred throughout reading the texts and carrying out their tasks. I suggest therefore that muttering to themselves was associated with reading strategies. It is not possible on the basis of this research to say whether this would happen in the contexts of both reading paper books and reading online texts. The strategy of questioning themselves is consistent with Anderson's (2003) online reading strategy of 'I ask myself questions I like to have answered in the on-line text' (p. 16). Sometimes, participants asked questions themselves when guessing what they had to do to solve the tasks after reading the instruction texts. Some tried to interpret the instructions and check whether their interpretation was correct (see Example 9.11 and 9.12). In all of the categories of verbalising, the participants were using the strategy of "guessing the text meaning" (Anderson 2003; Huang et al. 2009). When they were not sure about what they read, they made attempts at guessing the text contents. They expressed their attempts by verbalising. Verbalising would be a useful indicator of reading strategy

use, indicating the use of strategies such as guessing the text meaning. The verbalisations of muttering to themselves, questioning themselves and asking me questions, also could be reading strategies themselves. It seems that the reading strategy of verbalisation does, to some extent, fit into both the traditional model and a new model of online reading, although a strategy of muttering to themselves was not in both of the models.

10.3.3 Reading Texts Aloud

Apart from the strategy of verbalising, the participants read aloud the texts in the sentences of various text locations in their own way while playing RuneScape. I have discussed online reading strategies in section 4.4. This online reading strategy of reading the texts aloud is consistent with Huang et al.'s (2009) online reading strategy of 'reading aloud when text becomes hard' (p.23) in problem-solving strategies. This strategy also relates to the Anderson (2003) online reading strategy of 'when on-line text becomes difficult, I read aloud to help me understand what I read' (p. 17) in support strategies. Based on their strategies, the reason why the participants were reading aloud might have been to help their understanding of the difficult online texts. In the online reading context, reading aloud could be useful evidence of the reading strategy use of Korean young learners. It would be an online reading strategy itself. However, it is impossible on the basis of this research to say whether online reading and offline reading (reading printed books) would be identical or whether there would be a relationship between them. As I discussed in Chapter 4, the studies of Coiro and Dobler (2007), Leu et al. (2005) and Leu et al. (2007) investigated the identification of online reading and offline reading; however, their results were different, not drawing a clear conclusion. I argue therefore that, from one perspective, reading online texts would overlap with reading offline papers texts, and reading strategies when reading online texts would also overlap with ones when reading paper texts. Huang et al. (2009) said that it is important to 'incorporate both text-related and Web-related strategies in reading online texts' (p. 14). From another perspective, online texts have their own unique features, such as nonlinear hypertext, multiple-media texts and interactive texts (Coiro 2003). I would argue that students would be required to utilise

different strategies for reading online texts (Coiro 2007; Leu et al. 2007), which are different from the conventional ones for linear print (Snow 2002). This is the reason why further research needs to be carried out in the realm of reading strategies and computer game-based online texts for EFL young learners.

10.3.4 Translating

All the participants endeavoured to translate the English sentences aloud into Korean while playing RuneScape. I assume the reason for this was that, in the Korean context, elementary school students are usually trained to translate the English texts into Korean out loud at school; they might have done it unconsciously or habitually as an extension of their English studying. In online reading strategies, this strategy of translating from English into Korean corresponds to a strategy of 'when reading on-line, I translate from English to my native language' (p. 17) in Anderson's (2003) support strategies, and Huang et al.'s (2009) strategy of 'translating from English into Chinese' (p. 23). In the EFL (Costa Rica) and ESL (US) contexts of Anderson (2003), the translating strategy was one of the reading strategies least used by the learners, who ranged from high beginning to high intermediate; whereas in the Taiwanese EFL context of Huang et al. (2009), the translating strategy was used most by all university students in high-and low-level proficiency groups. This suggests that translating is an online reading strategy used by many learners; however, it does not fit in all the contexts. Although the studies of Anderson (2003) and Huang et al. (2009) were based on the EFL context, their results were totally opposite. It would mean that other factors, such as each country's history, or culture, or geographical location, should be considered. In this study, translating aloud was used by all participants and the results of translating aloud (see section 9.2.4) provided evidence of reading strategy use. They showed that participants concentrated on reading the important instruction texts and translated them into Korean. This suggests that this strategy was positive and to be encouraged in terms of helping comprehend the texts as a strategy of reading online texts.

10.3.5 Typing

Two participants, only Steve and Robin, typed English texts when trying to chat with other players in RuneScape. From one perspective, typing texts for replying to the questions of another player is likely to be associated with writing skills because English texts are written down by typing on a keyboard. From a different perspective, it seems to be related to reading skills because the typing is a response to questions that have been read in the texts. In the normal chatting mode, however, typing could initiate a chat with other players by asking questions and then getting response to or vice versa. In this case, reading and writing activities would be occurring at the same time, and conversations like this occur regularly in chatting mode, with communication between sender (writing) and receiver (reading). It seems therefore that typing is an interesting way of engaging with interactive, co-constructed texts. It is more interesting than defining typing as either reading or writing. In this study, therefore, I would not classify typing as either a writing or a reading skill, but as a third, mixed mode or process, which is interactive between skills, between skills and ICT and between players. However, in this study focusing on reading strategies, it seems that typing could be evidence of reading strategy use after reading the question texts in the dialogue box when Korean young learners were chatting with other players in RuneScape.

10.3.6 A Proposed Model of Online Reading Strategies in RuneScape

I propose a new model of online reading strategies of Korean EFL young learners while playing RuneScape, based on the strategies used by my participants and evidence of the strategy use in the research. The model is as follows:

Global Strategies

- Deciding what to read closely
- Deciding what to ignore
- Guessing the text meaning (using prior knowledge)
- Scanning to get a basic idea

Problem-solving Strategies

- Reading aloud for better understanding when text becomes hard

- Reading slowly and carefully to ensure understanding
- Rereading for better understanding when the text becomes difficult
- Asking questions to themselves or teacher or peers

Support Strategies

- Translating from English to Korean
- Reading aloud to help understanding
- Muttering to themselves
- Reading the texts for replying to the question in the chatting mode

10.3.7 Answer to Research Question 2

I have discussed kinds of reading participants employed in connection with clicking behaviours: skipping, scanning, careful reading and rereading, which were regarded as reading strategies (see section 10.3.1). I considered clicking behaviours as evidence of reading strategy use. When verbalising, guessing the text meaning was a reading strategy. I suggest that, muttering to themselves, questioning themselves and asking me questions, would be also reading strategies. Reading texts aloud, translating and typing would be involved in online reading strategies. The participants made use of their own preferred ways for making the texts easier to read and better to understand the texts with their own preferences. The online reading strategies in this study were the following ones:

- Skipping, scanning, careful reading and rereading
- Guessing the text meaning
- Muttering to themselves, questioning themselves and asking me questions
- Reading texts aloud
- Translating English texts into Korean
- Typing texts as a response to questions that have been read in the texts

Following the above discussion of reading strategies, my answer to the second research question is as follows:

> **RQ 2: WHAT KIND OF READING DO LEARNERS DO WITH RUNESCAPE?**
>
> My answer to RQ 2*: When learners were reading the texts in RuneScape, they used strategies of skipping reading, scanning reading, careful reading*

and rereading, as kinds of reading which I interpreted from their clicking behaviours. Apart from clicking behaviours, they used online reading strategies: guessing the text meaning by asking me questions, muttering to themselves and questioning themselves; reading texts aloud; translating from English texts into Korean; and typing English texts after reading the questions for chatting with other players.

10.4 Discussion of Interview Data

My participants gave positive feedback about using computer games and RuneScape for Korean children's English learning because the games were interesting: whereas the English teacher and the head teacher seemed to be cautious of the use of computer games, although children liked them. As mentioned in section 9.3, the interview responses from participants were very simple. Through the interview process, I realised that my participants, 10-to 11-year-old students, were unable to remind themselves of the processes of playing RuneScape and learning English, although they have gone through 10-14 sessions and they were told that this research was for learning English. They said that this game was interesting and it seemed to be helpful for their English learning: However, they were unable to analyse their learning in detail. This suggests that 10-11 year old students were not capable of reflecting on their learning processes and they did not take responsibility for their own learning. The classroom context would be the same situation, although experienced teachers keep stressing the objectives and learning process of the lesson before and after the class. This is against the view of constructivists: Building up their own learning process and being responsible for it would be ideal for teachers and educators, but that perspective would be unrealistic for learners themselves. It would be hard for learners by themselves to be like that. I suggest therefore that learners need to be trained by teachers: for example, after finishing each activity or task, teachers are able to remind students of the learning process, mentioning what they are learning; how it relates to the context; how it could be used for another situation; and so on. In my context, I suggest that, after each session, researcher could ask a

few open-ended and personalised questions shortly about each participant's behaviours or verbalisation, relating to learning vocabulary or reading, to help her or him reflect on her or his own playing and learning.

10.5 Modelling: Process of Playing RuneScape and English Learning

Based on my findings and discussion chapters, I propose modelling the process of RuneScape playing and the enhancement of English vocabulary and reading skills, providing for my context. The details of the process were based on the explanation of the possibility of RuneScape for English learning in section 5.2.3. I suggest that, through processing recurrently, playing RuneScape can have the potential to engage Korean EFL young learners in learning English, as a useful supplementary tool for developing vocabulary and reading skills. It is shown in Figure 10.1.

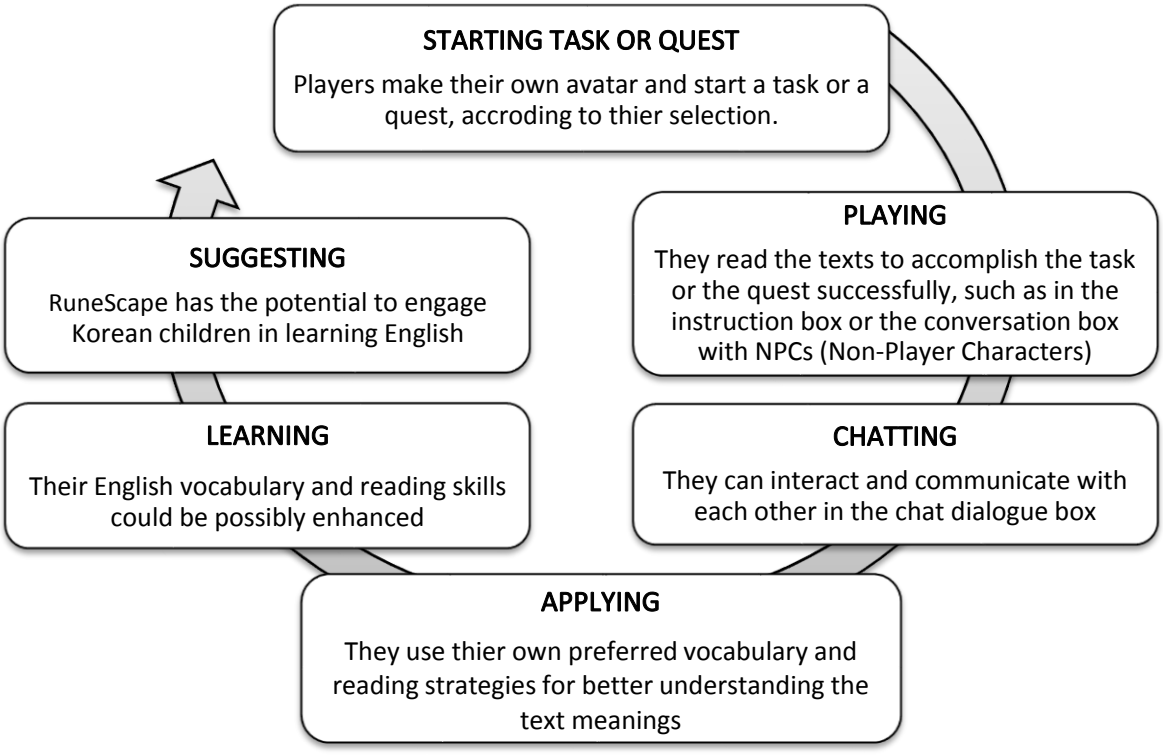


Figure 10.1 Modelling Process of Playing RuneScape and English Learning

10.6 Summary

This chapter has discussed to answer the research questions based on findings of my research, in which there was a relationship between playing RuneScape and the English vocabulary and reading skills of Korean children. The findings from interview data have also been discussed, as a supportive data. It finally has suggested the modelling process of playing RuneScape and English learning. The next chapter concludes with implications of this study, limitations and suggestions for future research, contributions of this study and final remarks.

Chapter 11 CONCLUSION AND FINAL REMARKS

11.1 Introduction

This chapter discusses the implications of this study, limitations of this research and suggestions for future research. It considers the contributions of this study to the area of TESOL and ICT. Finally, it concludes with my remarks about this thesis.

11.2 Validity and Generalisability in this Research

I justify my research methodology using the criteria of validity and generalisability, reflecting my data collection instruments. I do not consider research reliability here, because it would be hard to have a strong chance of getting the same results if I or someone else were to repeat the study. In my experience, although I started playing again from the beginning, I was unable to remember all the paths, which I passed. I assume that participants would find it impossible to play RuneScape identically or similarly to how they played previously. It seems therefore that a case study or case studies would have difficulty in achieving reliability regarding 'consistency over time (or stability) and internal consistency' (Punch 2005: 95) and measurement of whether 'the same results would be achieved if the tests or measure apply repeatedly' (Lewin 2005: 216).

11.2.1 Validity

Lewin (2005) refers to validity as 'whether or not the measurement collects the data required to answer the research question' (p. 216). Validity considers whether the methods, approaches and techniques are associated with, or measure the issues the researcher has been investigating (Blaxter et al. 2001). The design of research by validity seems 'to provide credible conclusions: whether the evidence which the research offers can bear the weight of the interpretation that is put on it' (Sapsford and Jupp 2006: 1). In methods and techniques, I used pre-and post-vocabulary tests for quantitative data, participant observation and interviews for

qualitative data, in order to answer my research questions. Another method, text retrieval using screen recorder, is difficult to define as a quantitative or qualitative method, but I obtained quantitative and qualitative data from it. I can therefore say that I used both qualitative and quantitative data collection methods. This multi-method approach is regarded as “triangulation”, combining quantitative and qualitative methods within a single investigation (Bell 2005) to complement each other as mutually supporting ways of collecting data (Denscombe 2003). This aims to ‘enhance confidence in the validity of the findings’ to be ‘valid, credible and warranted’ (Greene et al. 2005: 274); and to achieve more ‘opportunity of greater credibility and greater plausibility of interpretation’ (McDonough and McDonough 1997: 71). It seemed that my methods constructed triangulation to achieve validity of research methodology. In the validity of answering research questions, although I did not use the vocabulary test results as discussed earlier, I can say that the rest of my data provided suitable answers to my questions.

11.2.2 Generalisability

The strength of a case study is to undertake an in-depth study and intensive exploration of a case or cases, to illuminate a larger class of cases (Gerring 2007; Duff 2008), in ‘real-life situations’ (Merriam 1998: 41), or ‘lived reality’ (Hodkinson and Hodkinson 2001: 3), or in particular contexts. The strength leads to a rich and holistic explanation of phenomena, providing insights into the foundation of the field’s knowledge, and appeals particularly the educational fields of study (Merriam 1998). Ironically, this advantage of case study brings about its most controversial issue: “generalisability” or “generalisation”. The criticism is that case study usually involves only a single or a few cases in depth and this lacking sufficient numbers is unable to offer a generalising conclusion (Tellis 1997). It is based on the positivists’ view of quantitative or classical scientific research (Duff 2008) with large-scale experimental methods (Dörnyei 2007) for scientific development (Flyvbjerb 2006). My research is mainly based on the qualitative case study, focusing not on scientific experiments or proving hypotheses, but on in-depth understanding of the processes of a few cases in specific contexts. In terms of generalisability, my small-scale case study (five cases) would not supply sufficient numbers to represent the

population and form a generalised conclusion; however, some social science researchers suggest some different views on formal generalisation in advocating case study. As opposed to scientific generalizations, Merriam (1988: 164) states that Cronbach puts emphasis on 'the practical and action-oriented goal for research in a social science such as education'. In Cronbach's view, two reasonable goals are feasible: one is 'to assess local events accurately, to improve short-run control' and the other is 'to develop explanatory concepts, concepts that will help people use their heads' (Cronbach 1975: 126). This view relates to his different notion of generalisation: 'when we give proper weight to local conditions, any generalisation is a *working hypothesis*, not a conclusion' (Cronbach 1975: 125), although the term of working hypothesis is not replaced universally by generalisation (Duff 2008). Lincoln and Guba (2000) argue that 'local conditions make it impossible to generalise (and therefore) if there is a true generalisation, it is that there can be no generalisation' (p. 39). Another different idea on generalisation is to 'shift … the responsibility to generalize away from the researcher toward the *reader*' (Ruddin 2006: 804) or to 'consider the situation from the perspective of the *user* of the generalization' (Lincoln and Guba 2000: 36). It is based on Lincoln and Guba's perspective that case studies may be 'epistemologically in harmony with the reader's experience … and thus to that person a natural basis for generalization' (2000: 36). Stake (1995) advocated the term "naturalistic generalisation" or "transferability", which reconceptualised Lincoln and Guba's (2000) notion of generalisability. Stake (1995) distinguished the conventional notion of explicated or propositional generalisation from the naturalistic generalisations, which are 'conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that the person feels as if it happened to themselves' (p. 85). Stake (2006) argues that 'the reader knows the situations to which the assertions might apply, the responsibility of making generalizations should be more the reader's than the writer's' (p. 90). The point of the naturalistic generalisations is that 'the readers of case study reports must themselves determine whether the findings are applicable to other cases than those which the researcher studied' (Ruddin 2006: 809). In conventional research, a major shortcoming of case studies is that they are not able to specify "external validity",

which is a ‘fashionable term for the generalisability of a finding’ (Ruddin 2006: 805). However, within Stake’s naturalistic generalisation structure, case studies can provide generalisations from the perspective of the “reader” or “user”.

In conclusion, generalisability is the biggest drawback of my case study because of its small scale case study (five cases): however, the limitations of generalisability or external validity can be mitigated with the perspective of naturalistic generalisation or transferability. I suggest that case studies can make shifts of interpretations from the view that widespread numeric and scientific validity is necessary for a conclusion, to the view that readers can make a decision about whether the conclusion is valid. I argue therefore that my research process aims to progress with integrity from the research questions, methodology and data analysis to its conclusions and implications of the research report; readers will have to make a decision whether my conclusion is valid.

11.3 Implications and Applications of the Study

Based on the findings and discussion chapters, I suggest theoretical implications and methodological and practical applications to my research contexts. They are based on the significance of my study (see section 1.3), which I have already discussed. In its theoretical implications, the possible effect is that my study would stimulate researchers to engage in studying the emerging research field of MMORPGs, in line with English learning for EFL young learners. More research could be conducted about vocabulary and reading skills for EFL children, using diverse MMORPGs from the different perspectives of my study or about other English skills such as writing or speaking and listening skills if available. In methodological applications, a possible suggestion is that a screen recorder would be a useful tool for recording and storing the data from various activities of English learning through computer use, along with playing games. This would be supported by my data. Teachers can retrieve and obtain useful data when tracking students’ learning process or assessing their learning outcomes after finishing tasks or

activities from computer-based learning. Learners can also use screen recorders as a self-assessment tool to review their learning process.

In practical applications, my proposal is that teachers, educational specialists and practitioners in Korea or EFL countries would be able to develop TESOL learning resources or materials to foster English learning for young learners using MMORPGs. Educational practitioners would be able to implement the potential of MMORPGs in the English curriculum or TESOL programmes. RuneScape or MMORPGs would be employed in English classrooms in elementary schools of Korea or EFL countries using the designed syllabus. I suggest the "task-based learning", which can be designed by English teachers for their lessons. For example, the teachers can select a task about food from RuneScape or other MMORPGs. They then assign playing the task to students as an activity during the lesson.

11.4 Limitations and Suggestions for Future Research

11.4.1 Limitations of the Research

My initial problem occurred when I was building up the research design. I was unable to find the available theoretical frameworks or models to refer to about the relationship between MMORPGs and English learning for EFL young learners. It was because related research has barely been carried out. It was therefore hard to construct my own theoretical and methodological frameworks in the beginning; however, at the same time, these were very important reasons why I began this study, which could be significant in the area of English learning and technology. Another limitation was that this study was a small scale case study (five participants), so it could not be held to represent the population. From the positivists' view of scientific research, my findings would be not generalisable. Another drawback could be the research setting. It was not a state school-based formal setting, but a private English institute-based informal setting. The time limitation of the PhD thesis led me to do the small scale study in the private school; however, were I conduct this study in state schools and private schools on a bigger

scale (e.g. more than 100 students), I could gain more varied results. Failure to obtain productive data in vocabulary tests was the limitation of this study.

11.4.2 Suggestions for Future Research

Based on the limitations of my research, I suggest some points to obtain more varied and interesting findings for future research as follows:

(1) A larger-scale case study would be recommendable to represent the large population.

(2) The range of research settings could be expanded to both state schools, inner and outer-cities, and private schools, inner and outer-cities.

(3) A researcher could apply task-based learning in a lesson. For example, if the lesson is about food, the researcher could construct a task about food vocabulary in RuneScape or other MMORPGs and new vocabulary pre- and post-tests based on the vocabulary of food used in the task.

(4) If a researcher wishes to conduct interviews, I suggest that the researcher should interview each participant after each session, not just one interview at the end of the intervention. This would be more useful to obtain richer data about perceptions and explanations of particular behaviours or verbalisation.

(5) Individual differences, such as personalities or personal styles, could be considered when a researcher is studying the use of young learners' vocabulary or reading strategies in the classroom.

(6) More research to find a suitable and cost-effective MMORPG in different EFL contexts and at different student levels would be helpful to EFL learners.

(7) The directions of research in terms of software and hardware tools would be diverse: for example, from computer games with computers in my research, to a range of applications with iPads for Korean children's English learning, which would

need to be studied in advance to identify which applications would be suitable and obtainable in the specific contexts.

11.5 Contribution of the Study

The contribution of this study goes with the significance of this study (see section 1.3). I hope that this research will contribute to our gaps in knowledge identified in this paper: how and to what extent Korean young learners engage with the play of MMORPG RuneScape as a genre of computer games in English vocabulary and reading learning. It will thus directly address an area that lacks a well-developed research on young learners' English learning using MMORPG or RuneScape within the EFL context. It hopes to better understand whether MMORPGs affect children's learning English, whether there is the potential of RuneScape as a tool for English learning for Korean young learners, and how RuneScape or MMORPGs might be applied to and employed in English classrooms in elementary schools in Korea. The evidence-based findings provided by this research are intended to contribute:

- to the emerging research field of using MMORPGs for English learning
- to the development of TESOL learning resources intended to foster effective and appropriate vocabulary or reading skills of young learners
- to the methodological development of the research area to use texts retrieved from the process of playing computer games by screen recorder
- to informing educational practitioners in EFL countries of the development and potential of MMORPGs in implementing the curriculum
- to feeding into TESOL programmes on young learners, raising awareness of the importance of the role that MMORPGs can play in pedagogies

11.6 Final Remarks

When playing computer games, children normally sense that they are just playing and have no awareness of learning. Children tend to play computer games for fun and excitement so they do not need to be given particular incentives or treatments. RuneScape can provide more chances for Korean children to encounter a range of everyday and online language, and to apply vocabulary and reading strategies to understand the text meanings. Through the process of playing RuneScape, I assume that children's vocabulary and reading skills would be enhanced, enabling them to achieve a higher score in English inside school and communicate with native speakers in English in real situations outside school. I suggest that playing RuneScape would provide the potential to engage Korean children in learning English vocabulary and reading skills. The last point I would like to make is not that using MMORPGs would be the best way for Korean children to learn English, but that applying MMORPGs, including RuneScape, to learning for vocabulary and reading skills could be a way to lead Korean children to perceive that they are "playing consciously" but "learning unconsciously". Finally, I conclude with the social constructivists' view of children's language learning that 'that which the child is able to do in collaboration today, he will be able to do independently tomorrow' (Vygotsky 1978: 216-217), hoping that Korean children could be active and independent learners in learning English with interest and motivation.

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ONLINE RESOURCES

BB FlashBack, http://www.bbsoftware.co.uk/BBFlashBack_FreePlayer.aspx

BBC Dance Mat Typing, http://www.bbc.co.uk/schools/typing/

BSR Screen Recorder, http://www.thesilver.net/

EBSe, http://ebse.co.kr

Edunet, http://www.edunet4u.net

Fraps, http://www.fraps.com/

Inappropriate Language or Behaviour in RuneScape (Effective date: 26th Sep 2013)
http://services.runescape.com/m=rswiki/en/Inappropriate_language_or_behaviour

Keyboarding Games at Learning Games for Kids.com,
http://www.learninggamesforkids.com/keyboarding_games.html

Player Submission section,
http://www.runescape.com/kbase/guid/Player_Submissions

Rune Tips, http://www.tip.it/runescape/

Runecheatz, http://runecheatz.com/

RuneScape official website, http://www.runescape.com/

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http://cafe.naver.com/runescape.cafe

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http://wordnetweb.princeton.edu/perl/webwn

World of Warcraft official website, www.warcraft.com/

Yahoo Korea Online Dictionary, http://kr.dic.yahoo.com/

YouTube, www.youtube.com

ZD Soft Screen Recorder, http://www.zdsoft.com/

Zybez.Net RuneScape Help, http://www.zybez.net/

LIST OF ABBREVIATIONS

AFP: Agence France Press (French independent news agency)
BERA: British Educational Research Association
CALL: Computer-Assisted Language Learning
CLSS: Cognitive Learning Strategy Survey
CLT: Communicative Language Teaching.
CMC: Computer-Mediated Communication
CSAT: College Scholastic Aptitude Test.
EFL: English as a Foreign Language (Studying English in non-English-speaking countries).
ELT: English Language Teaching.
FAQs: Frequently Asked Questions
ICT: Information & Communication Technology.
IELTS: International English Language Testing System.
IM: Instant Messaging
L1: First Language a student has acquired, also referred to as NL (Native Language)
L2: Second Language a student has acquired
MMORPG(s): Massively Multiplayer Online Role-playing Game(s)
MOE: Ministry of Education.
MSN: The Microsoft Network
NIIED: National Institute for International Education
NPC: Non-Play Character
OECD: Organization for Economic Co-operation and Development.
PELT: Primary English Level Test
PS3: Playstation 3
SLA: Second Language Acquisition
SMS: Short Messaging Service
SOLA: The Survey of Reading Strategies
TESOL: Teaching English to Speakers of Other Languages.
TETE: a South Korean governmental policy requiring teachers to “Teach English through English.”
TOEFL: Test of English as a Foreign Language.
TOEIC: Test of English for International Communication.
WoW: World of Warcraft

Appendix A Inappropriate Language or Behaviour

(effective date: 26th Sep 2013)[21]

Players of RuneScape come from all around the world and from a range cultural and religious backgrounds. Our mission is to create a fun and engaging game for all our players, therefore language that is considered offensive, racist, obscene or otherwise inappropriate should not be used in chat or as a username. We encourage players that experience language they deem to be offensive to use their ignore list and chat filters to customise their experience.

Why do we have this rule?

We have this rule to ensure that any and all players can have the best experience possible.

What do you mean by offensive or inappropriate language?

This includes (but is not limited to): discussion of recreational drugs, sexually explicit language, solicitation, racism or other prejudice, threatening behaviour, blackmail and excessive swearing.

Is it okay to ask for a boyfriend or girlfriend in the games?

This is considered solicitation and is not allowed at all. This is not a dating website after all!

What is Spam?

Spamming/flooding the chat window is to fill the chat window with unnecessary text. Players should refrain from spamming, as it can be detrimental to others enjoyment of the in game chat systems.
To keep RuneScape enjoyable for everyone, please observe and follow our rules. We will not tolerate disruptive players, and if you break our rules your account is likely to be banned or muted. Members who are banned or muted for breaking our rules are not entitled to any sort of refund.

[21] Retrieved 23. Jan. 2014 from http://services.runescape.com/m=rswiki/en/Inappropriate_language_or_behaviour

Appendix B Synchronous & Asynchronous CMC in RuneScape

TEXTS ON SYNCHRONOUS CMC

I explain my experiences to start up the game and go proceed to next stages. I was able to sign up and make RuneScape ID and password easily only by entering my email. After logging in with newly made ID and password, I could start playing RuneScape instantly.

Completing Quests and Objectives

After I started the game after logging in, RuneScape displayed the first quest to complete in order to proceed to next step. In the first quest, as a role of guide, Sir Vant (one of NPCs) led me saying what quest was for me and how to do it (See Figure B.1). To do this quest named 'Unstable Foundations', I should read his instructions first and follow them one by one. If I am unable to remember them, I am able to remind myself through "Quest Journal" (See Figure B.2).

Figure B.1 Sir Vant's instruction for the first quest 'Unstable Foundations'

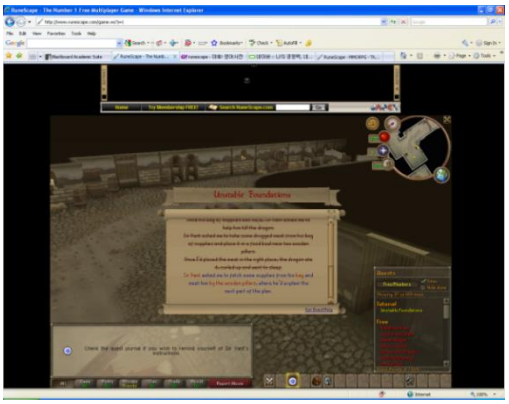

Figure B.2 Quest Journal for 'Unstable Foundations'

Specifically, I carried out the first quest to help Sir Vant to destroy the dragon. There was an advisor Roddeck (another NPC) to give advice to solve quests and objectives at any time on the advisor screen (See Figure B.3 below). In this quest, there was a subordinate task called "objective" to complete the quest successfully and there were two choices of this objective: mining through the rocks or chopping through the roots. I have selected the mining and completed it (See Figure B.4).

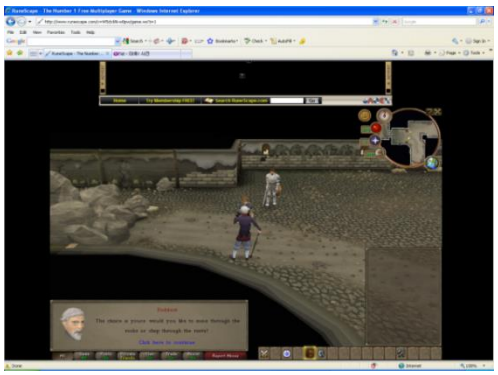

Figure B.3 NPC (Advisor Roddeck) Giving Advice for Quests and Objectives

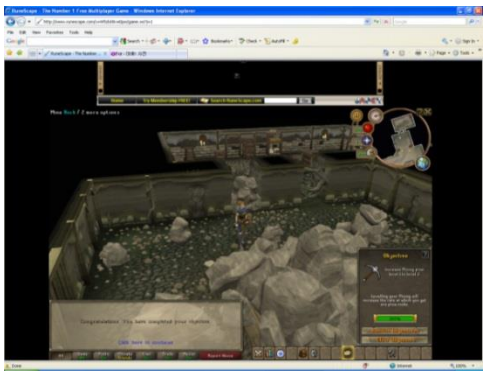

Figure B.4 Objective Completion: Mining

My mining level was increased from 1 to 4 and I have completed the quest, 'Unstable Foundations' and gained 1 quest point (See Figure B.5).

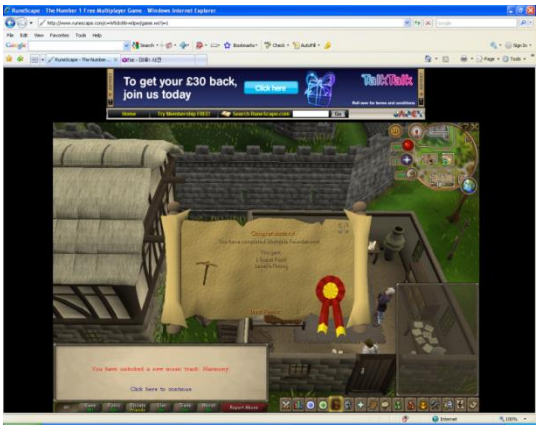

Figure B.5 Quest Completion

After completing my first quest, I was requested to proceed to another quest which was selected by me among a lot of quests. When I chose the cooking quest, there were the game guides or articles (See Figure below B.6) about cooking. The first section was the Basics: Introduction, Fires, Cooking Ranges, Cooking More Than One Item. The second was non-member's food section which displayed food items (See Figure B.7 below) that could be cooked using cooking ranges or opening fires.

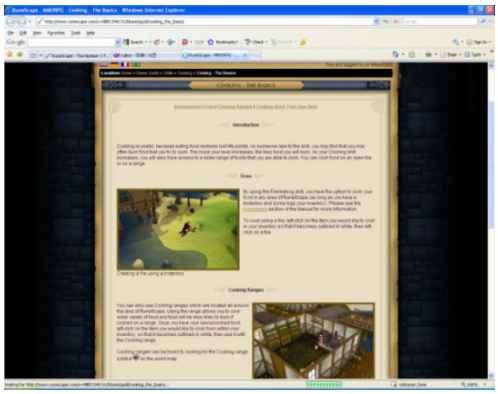

Figure B.6 Game Guide for cooking objective

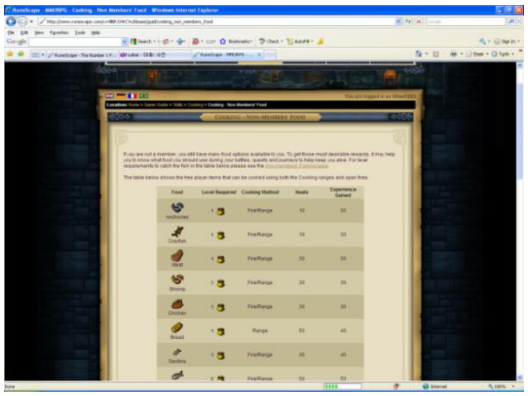

Figure B.7 Food items and table for non-member

My view in this cooking quest is that the food table is very useful to learn and acquire vocabulary on food such as a sort of fish. It is because there are pictures with spellings on each food and players can encounter the food's name repeatedly during accomplishing the quest. Then, it leads to help the users to remember both vocabulary and spellings by getting more opportunities to encounter.

Chatting with other players and NPCs

The chat system enables players to communicate with each other. Public Chat broadcasts text to players in the local area on one server, both by text appearing above the speaker's head and in the message box (See Figure B.8 below).

Figure B.8 Chatting with other players

Clan Chat broadcasts text in the message box only to certain players tuned into a specific channel, who can be available on any RuneScape world. Each Clan Chat channel has an owner, who can assign different ranks to individual players; players' ranks dictate their ability to perform administrative tasks within the channel. Private Chat allows for one-to-one communication through a player-controlled Friends List. Quick Chat allows players to choose from a list of predetermined messages to send as Public Chat, Clan Chat, or Private Chat. In the early stage, players are taken through a Tutorial, as mentioned above, a set path where they learn the most basic skills in RuneScape. After the tutorial, players have access to tutors and advisors located in the towns they explore, who can give players appropriate information about their respective skills. Players set their own goals and objectives as they play the game. They can train their in-game skills, engage them with NPCs and other players in combat and complete quests at their discretion. Players interact with each other through trading, chatting, or by participating in mini-games.

TEXTS ON ASYNCHRONOUS CMC

I present the places to encounter texts outside of RuneScape's official website to play the main game in real time. The places of asynchronous CMC lead to players to share help, advice or cheat information for solving problems or skipping levels.

Game Guide and FAQs on Homepage

There are some guides like Manual, Quest Help, Grand Exchange, Rules, and Lores to facilitate the users to understand RuneScape itself and to proceed through quests, mini-games and activities.

Communities and Forums

There is a community running by RuneScape website itself to inform official announcements, Forums, Hiscores, Polls and Player Submission. "Player Submissions"[22] in RuneScape consists of three sections: 1) Read what RuneScape's most famous celebrities have to say for themselves, 2) View some great art made by RuneScape's players, and 3) Read the words spoken by RuneScape gods in times past. Moreover, I found that a number of communities are related to RuneScape using searching engine, Google. For example, "RunescapeAddicts"[23] provides the tips and guides, but mainly focuses on forums in which the RunescapeAddicts statistics shows what is going on: For example, threads: 9,056, posts: 104,249, members: 5,152 and active members: 297[24]. Another one is "Zybez.Net

[22] Cited on 10, Apr, 2011 from Player Submissions, http://www.runescape.com/kbase/guid/Player_Submissions
[23] RunescapeAddicts, http://www.runescapeaddicts.com/ on 10, Apr, 2011
[24] RunescapeAddicts statistics, http://www.runescapeaddicts.com/forums/ on 10, Apr, 2011

RuneScape Help"[25], which has sections like Runescape Help, guides, items, quests, and forums including skill guides, news and information and item descriptions. A final example is "Rune Tips"[26], which is the original RuneScape fan site offering help with quests, skill guides, walkthroughs, dungeon maps, calculators, monster info and consisting of sections such as forums, clans, databases, guides, tools, and information. Meanwhile, some RuneScape Korean Communities also exist, but almost of them are not running popularly with only between two and five members. Amongst them, "RuneScape Community" (See Figure B.9 below) is the first opened and popular café, which owns the most members (332 members)[27].

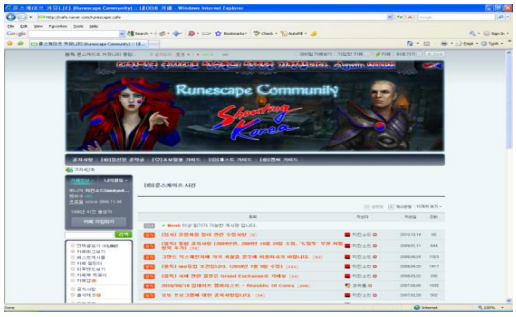

Figure B.9 The Main Screen of RuneScape Community: Korean Community

Guidebooks

There are two books released in Korea at present: 'Runescape' - The Official Handbook and Strategy Guide (West, TraceyScholastic, 01. Jan. 2007); and 'Betrayal at Falador' (Paperback): Runescape Church (Random House Inc, T. S., 12. Oct. 2010). The purpose of those books is to help RuneScape players perform the game successfully with precise maps and information in the world of RuneScape.

Cheat websites

In computer games, cheat means 'using non-standard methods for creating an advantage beyond normal gameplay, usually to make the game easier' (Wikipedia[28]) for skipping the levels to purchase items There are a variety of cheat sites with cheat codes, tricks, tips, hints, and secrets on RuneScape. For instance, "Runecheatz"[29] aims to powerlevel the skills and get rich using Runescape cheats. It advertises the attractive things for players to 'powerlevel any character to maximum skill levels even while you sleep' and 'skip over the tedious, repetitive parts of the game and skip right to the fun quests'.[30]

YouTube videos

There are some videos related to RuneScape on YouTube. For example, ID Archer96 has uploaded several videos and one of his videos has been viewed by 1,900,537 until the 10th of April in 2011[31]. After watching videos, people could add comments about the game itself, its strategies, and information. Through these processes, players can not only share the knowledge and information with other players about how to go up the next levels, but also have more chances to practice English reading and writing.

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[25] Zybez.Net RuneScape Help, http://www.zybez.net/ on 10, Apr, 2011
[26] Rune Tips, http://www.tip.it/runescape/ on 10, Apr, 2011
[27] RuneScape Community, http://cafe.naver.com/runescape.cafe on 10, Apr, 2011
[28] Retrieved on 10.Apr.2011, https://en.m.wikipedia.org/wiki/Cheat_code#Cheat_codes
[29] Runecheatz http://runecheatz.com/ on 10, Apr, 2011
[30] Cited 10, Apr, 2011 from http://runecheatz.com/
[31] Retrieved on 10, Apr, 2011 from http://www.youtube.com/watch?v=rsc9Gwe9Vi8

Appendix C Vocabulary Size Test of Nation and Beglar (2001)

(Korean Version)

First 1000

1. see: They **saw** it.
a. 잘랐다 b. 기다렸다 c. 보았다 d. 시작했다

2. time: They have a lot of **time**.
a. 돈 b. 음식 c. 시간 d. 친구들

3. period: It was a difficult **period**.
a. 질문 b. 기간 c. 해야 할 일 d. 책

4. figure: Is this the right **figure**?
a. 대답 b. 장소 c. 시간 d. 숫자

5. poor: We are **poor**.
a. 돈이 없다 b. 행복하다 c. 매우 흥미 있다 d. 힘들게 일하는 것을 싫어한다

6. drive: He **drives** fast.
a. 수영하다 b. 배우다 c. 공을 던지다 d. 차를 운전하다

7. jump: She tried to **jump**.
a. 물 위에 누워있다 b. 갑자기 뛰어오르다
c. 길가에 차를 세우다 d. 아주 빨리 움직이다

8. shoe: Where is your **shoe**?
a. 돌보는 사람 b. 금고, 저금통 c. 펜, 연필 d. 신발

9. standard: Her **standards** are very high.
a. 구두 뒷굽 b. 학교성적 c. 요구한 금액 d. 수준

10. basic: I don't understand the **basis**.
a. 이유 b. 단어들 c. 도로 표지판 d. 기본원리

Appendix D Preliminary Text Data Analytical Framework

Name		No		Date		Time		Place	

Research Questions	**Text Type**	Places to encounter language							
		RuneScape Interface	Message box when chatting	Quest Journal	FAQs and Game Guide	Discussion boards/ Forums	Communities	Cheat Websites	Other places
RQ 1: What language do learners encounter when playing RuneScape?	Common vocabulary and expressions								
	Specific terms of computer games								
	Chat Speak (acronyms and abbreviations)								
	Emoticons								
	Reduplication								
	RuneScape Vernacular								
	Other texts								

Appendix E Preliminary Observation Checklists

Name		No		Date		Time		Place	

Category to observe			**Details of contents**	**comments**
Observation Items	**RQ 2**: Vocabulary Strategies	Looking up in the dictionary		
		Guessing meaning from the context		
		Taking notes and reviewing		
	RQ 3: Kinds of Reading	Search reading		
		Skimming		
		Scanning		
		Careful reading		
		Browsing		

Observation Items	**RQ 3**: Reading Strategies	Skipping an unknown word while reading		
		Rereading to re-establish text meaning		
		Predicting the contents of the text		
		Making inferences		
		Guessing the meaning of a new word from context		
Other Items				
Overall Comments				

Appendix F Researcher's Field Notes

No		Date		Time		Place	

Category	Comments	Emergent reflections
Participant 1		
Participant 2		
Participant 3		
Participant 4		
Participant 5		
Overall comments		

Appendix G Interview Questions for Learners

(English Version)

Q. 1; About the perceptions of English language learning in the school

A) Why do you think we are learning English in the classroom?

B) What do you think of learning English the way you do in the classroom?

C) What do you think is the best method of teaching English to Korean elementary children? Why?

Q. 2; About the perceptions of using computer games for English learning

A) What do you think of using computer games for English learning?

B) Do you think that computer games are helpful to learn English for Korean children? Why? Or Why not?

C) What do you think the advantages and disadvantages of using computer games for English learning are?

Q. 3; About the opinions of playing RuneScape for English learning

A) Do you think English learning occurs with playing RuneSape, particularly in terms of vocabulary learning and reading?

Why? Or Why not?

B) Do you think that playing RuneScape is helpful to learn English for Korean elementary school students?

Why? Or Why not?

C) After this implementation, can you recommend it to your friends? And are you going to keep playing RuneScape?

Why? Or Why not?

d) Do you think that your English has been improved or your attitude and interest about English learning have been changed after taking part in the research?

Why? Or Why not? If then, what are the problems and limitations of playing RuneScape for English learning?

Interview Questions for Learners (Korean Version)

인터뷰 질문 (리서치 참가학생들)

Q.1; 학교 영어공부에 관한 일반적인 견해

A) 왜 학교에서 영어를 배운다고 생각하나요?

B) 학교에서 영어를 배우는 방법에 대해 어떻게 생각하나요?

C) 한국 초등학생들이 영어를 더 잘 배울 수 있는 방법이 있다고 생각하나요? 그 이유는?

Q. 2; 영어공부를 위한 컴퓨터 게임에 대한 일반적인 견해

A) 영어공부를 위해 컴퓨터 게임을 이용하는 것에 대해 어떻게 생각하나요?

B) 컴퓨터 게임이 초등학생들에게 적합하다고 생각하나요? 그 이유는?

C) 컴퓨터 게임을 영어공부에 이용할 때 장점과 단점은 무엇이라고 생각하나요?

Q. 3; 영어공부를 위해 룬케이프 게임을 하는 것에 대한 의견

A) 룬스케이프 게임을 하면서 영어공부가 되었다고 생각하나요? (특히, 단어나 읽기에서) 그 이유는?

B) 룬스케이프 게임이 한국 초등학생 영어공부에 도움이 된다고 생각하나요?
그 이유는?

C) 이 리서치가 다 끝난 후에 친구들에게 룬스케이프 게임을 추천할 수 있나요? 그리고 계속 이 게임을 하고 싶나요? 그 이유는?

D) 이 리서치에 참가한 후 영어 성적이 오르거나 영어에 대한 태도와 흥미가 바뀌었나요? 그 이유는? 아니라면 영어공부를 위한 룬스케이프 게임의 문제점이나 한계점은 무엇인가요?

Appendix H Interview Questions for Teachers

(English Version)

Q. 1; **About the perceptions of English teaching and learning in Korea**

A) What is your opinion on teaching English to the elementary school children in Korea?

B) Do you think it is the proper age to start learning English? Why?

C) What do you think is the better methods of learning English to Korean children? Why?

D) What do you think of practising English language through game-like activities?

Q. 2; **About the perceptions of using computer games for English learning**

A) What do you think of using computer games for English learning?

B) Do you think that computer games are helpful to learn English for Korean children? Why? Or Why not?

C) What do you think the advantages and disadvantages of using computer games for English learning are?

Q. 3; **About the opinions of learners' playing RuneScape game for English learning**

A) Do you think that learners like to play RuneScape?

Why? Or Why not?

B) Do you think that their English has been improved or their attitude and interest about English learning have been changed after taking part in the research?

Why? Or Why not?

C) Do you think that playing RuneScape (using commercial game for interest rather than edutainment game with the environment consisting of English language) is helpful to learn English for Korean elementary school students? Why? Or Why not? Then, what are the problems or limitations of using this game for English learning?

Interview Questions for Teachers (Korean Version)

인터뷰 질문 (학원 원장님 & 선생님)

Q.1; 한국에서의 영어공부에 관한 일반적인 견해

A) 한국에서의 초등영어공부에 관해 어떻게 생각하십니까?

B) 영어공부를 시작하기에 적합한 나이는 언제라고 생각하십니까?

C) 한국 초등학생들이 영어를 더 잘 배울 수 있는 방법이 있다고 생각하나요? 그 이유는?

D) 게임과 같은 활동들을 통해 영어를 공부하는것에 대해 어떻게 생각하십니까?

Q. 2; 영어공부를 위한 컴퓨터 게임에 대한 일반적인 견해

A) 영어공부를 위해 컴퓨터 게임을 이용하는 것에 대해 어떻게 생각하나요?

B) 컴퓨터 게임을 초등학생들에게 적용하는게 적합하다고 생각하나요? 그 이유는?

C) 컴퓨터 게임을 영어공부에 이용할 때 장점과 단점은 무엇이라고 생각하나요?

Q. 3; 참가자들과 영어공부를 위해 룬케이프 게임을 이용하는 것에 대한 견해

A) 참가자들이 이 게임을 하는 것을 좋아한다고 생각하십니까? 그 이유는?

B) 이 리서치에 참가한 후 영어 성적이 오르거나 영어에 대한 태도와 흥미가 바뀌었나요? 그 이유는?

C) 룬스케이프 게임 (흥미를 끌기 위해 상업용 게임을 이용함 & 영어로만 되어있는 환경)이 한국 초등학생 영어공부에 도움이 된다고 생각하나요? 그 이유는?
아니라면 영어공부를 위한 룬스케이프 게임의 문제점이나 한계점은 무엇인가요?

Appendix I Pilot Study (1) Text Data (Chat Seminars of EDUC 5979 Module)

The Text Data Record (excerpt 1 of chat seminar, afternoon main on 02, Feb, 2011)

Research Questions	Type of Text Data	Contents of Text Data
RQ 1: Normal & Virtual Language	**Common Vocabulary & Expressions**	Good afternoon, hello everyone, look over my shoulder, at the moment, by the way, How are you all today?, good thanks, not bad, celebrate, Chinese New Year, contact, talk about, are ready for, information
	Chat Speak (Acronym & Abbreviations)	N/A
	Emoticons	:) x 6 times: smiling, :-) : another smiling
	Reduplication	Kalaaaaaaaaaaaa, yessss
	Specific terms	Adobe Connect: relating to computer chatting system Supervisor, critical study, proposal: relating to Master's program Email: relating to computer communication
	Other texts	1. Using other languages e.g. Greek: Geia!, Xerete, geia sas!, ti kanete?, kala, Mia xara, kala eseis?, Geia sou, teleia Chinese: Nie hao Spanish: Hola! 2. Missing spelling e.g. superviso(r)

The Text Data Record (excerpt 2 of chat seminar, evening main on 02, Feb, 2011)

Research Questions	Type of Text Data	Contents of Text Data
RQ 1: Normal & Virtual Language	**Common Vocabulary & Expressions**	Hi, how are you, I'm good, I'm fine, Good evening, Thank you, I'm sorry, important, commitment, No problem, language, interesting, give a speech, celebrating, funny, had married, crop up, feel under the weather, feel better, flu, politics, autograph, hyperventilating, breath
	Chat Speak (Acronyms & Abbreviations)	LOL (laughing out loud) x 4 times, lol x 3 times, Hmm, WOW How r u? (How are you?) x 2 times, R U (Are you), sth (something), cant (cannot)
	Emoticons	:) x 5 times, :-) x 2 times, :-)) (smiley face), ;-) (wink)
	Reduplication	WOWOWOWOWOW!, hahahaha, hhahahaa
	Specific terms	Krashen, comprehensive input, Harmer, Chomsky, education paradigms, Sir Ken Robinson (terms of language learning) Screen readers, web link (term of computer), Dyslexic (medical terminology)
	Other texts	1. Using other languages Arabic: Salam (salutation), Elekumel salam, Keefik (How are you?), Salaam aleikum (peace be upon you), Tomom Greek: Kalispera sas, Indian: Namaste (greeting), Polish: cszesc (Hello), Spanish: Hola (greeting), Portuguese: Olá! (greeting), Maltese: il-lejl it-tajjeb (Good night), lilek ukoll (well you) 2. Wrong spelling: comiing, haven'/t, anniversiary, reveivd, lesuries, distnguished 3. Using capital letters for emphasis: I HAVE ACTUALLY MET KRASHEN, WOW, I HAVE THE AUTHOGRAPH TO PROVE IT, STRONGLY, WAS, JAWS

Appendix J Pilot Study (2) Consent Form for Parents

(English Version)

Consent form for parents

University of Leeds, School of Education
PhD Education and ICT
Investigator: Kwengnam KIM
Tel: 44 07774410979, E-mail: edkk@leeds.ac.uk or jasmin5@lycos.co.kr

PhD Thesis Research *Case study: investigation and exploration the correlation between MMORPG RuneScape and English learning in terms of vocabulary and reading skills for young English learners as EFL (English as a Foreign Language) in South Korean context*

The purpose of this letter is to request permission for your child as a participant in a research entitled: Case study: investigation and exploration the correlation between MMORPG RuneScape and English learning in terms of vocabulary and reading skills for young English learners as EFL (English as a Foreign Language) in South Korean context. I am conducting the research as part of a PhD Thesis Research at the University of Leeds, School of Education in the UK. The aim of this research is to study the relationship between MMORPG RuneScape and English learning for vocabulary and reading skills for Korean young learners, in order to find out its affordances of English learning tool to be helpful for constructing a better English educational environment. Your participation is completely voluntary and will not affect your other study. Observation by researcher will take place while you are playing RuneScape. As recommended by ethical guidelines for the conduct of research (University of Leeds), your anonymity will be protected and your confidentiality of data will be also taken to secure, if extracts are included in research publications, reports, or for demonstration purposes. Participants are free to withdraw from the research at any time. I would be very grateful if you could complete the form below, so that I know if your child can take part in this research. If you have any queries or concerns, feel free to contact me, Kwengnam KIM and I will answer to the best. Thank you very much for your consideration in this matter.

Consent Form

I freely and voluntarily consent to take part in this research project. I acknowledge that the research has been explained to me and that all my performance data will be confidentially stored. I understand that I may withdraw from this research at any time and that I may ask any questions about the procedures to be followed.

Date: / / 2011
Student's name: _____

Name of student's parents: _____ Signature of parents: _____

Consent Form for Parents (Korean Version)

리서치 동의서

안녕하십니까?

먼저 리서치에 참여해 주신 여러분과 부모님께 진심으로 감사의 말씀을 드립니다. 이 리서치의 목적은 한국 초등학생 (4-6학년)들이 영어공부를 함에 있어서 컴퓨터 대중 참여 롤 플레잉 게임인 RuneScape과 영어 단어와 읽기 공부의 관계를 알아보고 조사해서 좀 더 나은 교육 환경을 만드는데 도움이 되고자 하는 것입니다. 모든 리서치 과정과 결과는 영국에 있는 University of Leeds (리즈 대학교)의 교육대에서 박사 과정을 하고 있는 김굉남(본인)의 박사 논문을 위해 쓰여지고, 수집된 모든 정보는 논문에 관련된 자료로만 사용됩니다. 리서치에 참여하시는 여러분들에 관련된 모든 사항들은 익명 또는 학생1, 학생2 등으로 표시되고 참여자에 관련된 모든 정보는 비밀이 보장됩니다. 리서치 참여는 오로지 스스로의 의사에 따라 참여하는 것이고 리서치에 참여하다가 개인적인 사정 등에 의한 참여 중단도 가능합니다. 다시 한번 여러분의 참여에 감사드리고 이 동의서를 읽으시고 의문점이나 궁금한 사항이 있으시면 말씀해 주십시오. 또한 리서치 진행 중에 의문사항이나 문제점이 있으면 언제든지 말씀해주십시오. 마지막으로 아래에 참여자 이름과 부모님 서명을 부탁 드립니다.

날짜: 2011년 월 일

리즈대학 박사과정 김 굉남 드림

전화번호 (영국): + 44 07774410979

이메일: edkk@leeds.ac.uk 또는 jasmin5@lycos.co.kr

리서치 동의서

위의 내용을 충분히 이해하고 리서치에 협조를 동의합니다.

날짜: 2011년 월 일

리서치 참여자 (학생) 이름: _____

부모님 성함: _____

서명: _____

Appendix K Pilot Study (2) Observation Checklists

Name		No		Date		Time		Place	

Category to observe			**Think Aloud Yes/ No**	**Details of Think Aloud**	**Comments**
Observation Items	**RQ 3**: Reading Strategies	Skipping an unknown word while reading	Yes/ No		
		Rereading to re-establish text meaning	Yes/ No		
		Predicting the contents of the text	Yes/ No		
		Making inferences	Yes/ No		
		Guessing the meaning of a new word from context	Yes/ No		
		Others			

Appendix L Head Teacher Consent Form

(English Version)

Head teacher Consent Form

University of Leeds, School of Education
PhD TESOL and ICT
Investigator: Kwengnam KIM
Tel: 44 07774410979, E-mail: edkk@leeds.ac.uk or jasmin5@lycos.co.kr

PhD Thesis Research *Case study: investigation and exploration the correlation between MMORPG RuneScape and English learning in terms of vocabulary and reading skills for young English learners as EFL (English as a Foreign Language) in South Korean context*

The purpose of this letter is to request permission for carrying out my research in your private English institute with five participants (4^{th} - 6^{th} grade elementary students). I will conduct the research as part of a PhD Thesis Research at the University of Leeds, School of Education in the UK. The aim of this research is to study the correlation between MMORPG (Massive Multiplayer Online Role-playing Game) RuneScape and English learning for vocabulary and reading skills for Korean young learners. RuneScape is a fantasy role playing computer game with people throughout the world in real time for free and has the Guinness World Record as the world's most popular free MMORPG. My purpose is to find out its potential affordances of English learning tool to be helpful for Korean young learners. Throughout conducting this research, I hope that my research will contribute to find a new tool for improving Korean children's English and construct a better English educational environment in the Korean context. Students' participation is completely voluntary. Research will be carried out 16 sessions and 30 minutes per session and I will try to adjust their time after finishing all lessons in this institute, not to affect their study. Observation by researcher will take place while participants are playing RuneScape. As recommended by ethical guidelines for the conduct of research (University of Leeds), their anonymity will be protected and the confidentiality of data will be also taken to secure, if extracts are included in research publications, reports, or for demonstration purposes. Participants are free to withdraw from the research at any time. I would be very grateful if you could complete the consent form below, so that I know if you give a permission to conduct my research in your private English institute. If you have any queries or concerns, feel free to contact me, Kwengnam KIM and I will answer to the best. Thank you very much for your consideration in this matter.

Head teacher Consent Form

I freely and voluntarily consent to take part in this research project. I acknowledge that the research has been explained to me and that all my performance data will be confidentially stored. I understand that I may withdraw from this research at any time and that I may ask any questions about the procedures to be followed.

_____	_____	_____
Name of head teacher	Date	Signature
_____	_____	_____
Researcher	Date	Signature

Head Teacher Consent Form (Korean Version)

학원장님 리서치 동의서

안녕하십니까?
먼저 리서치를 허락해 주신 학원장님께 진심으로 감사의 말씀을 드립니다. 이 리서치의 목적은 한국 초등학생 (4-6학년)들이 영어공부를 함에 있어서 컴퓨터 대중 참여 롤 플레잉 게임인 RuneScape (동시에 전 세계인들인 접속해서 같이 게임을 할 수 있는 판타지 게임)을 하면서 영어 단어와 읽기 공부에 영향을 미치는지 그 상관 관계를 알아보는 것입니다. 이 리서치를 통해서 이 게임이 영어공부의 한 방법이 될 수 있는지 알아봄으로서초등학생들의 영어실력 향상 및 좀 더 나은 한국의 영어 교육 환경을 만드는데 도움이 되고자 합니다. 모든 리서치 과정과 결과는 영국에 있는 University of Leeds (리즈 대학교)의 교육대에서 박사 과정을 하고 있는 김굉남(본인)의 박사 논문을 위해 쓰여지고, 수집된 모든 정보는 논문에 관련된 자료로만 사용됩니다. 리서치에 참여하는 학생들에 관련된 모든 사항들은 익명 또는 학생1, 학생2 등으로 표시되고 참여자에 관련된 모든 정보는 비밀이 보장됩니다. 리서치 참여는 오로지 스스로의 의사에 따라 참여하는 것이고 리서치에 참여하다가 개인적인 사정 등에 의한 참여 중단도 가능합니다. 이 리서치는 초등학생 4학년부터 6학년 사이 학생들 중 5명을 선별해서 30분씩 총 16회에 걸쳐 시행될 계획이며 이곳 학원에서 모든 수업 종료 후 학생들의 학업에 지장이 없도록 노력하겠습니다. 어린이 참여자들이 RuneScape를 게임하는 동안 제 (연구자)가 관찰을 할 것이며 최대한 방해가 안 되도록 편안한 분위기를 만들도록 노력하겠습니다. 다시 한번 리서치 시행을 허락해 주셔서 감사드리고 이 동의서를 읽으시고 의문점이나 궁금한 사항이 있으시면 말씀해 주십시오. 리서치 진행 중에 의문사항이나 문제점이 있으실 경우도 언제든지 말씀해주십시오. 마지막으로 아래에 원장님의 성함과 서명을 부탁드립니다.

날짜: 2011 년 월 일
리즈대학 박사과정 김 굉남 드림
전화번호 (영국): + 44 07774410979
이메일: edkk@leeds.ac.uk 또는 jasmin5@lycos.co.kr

리서치 동의서

위의 내용을 충분히 이해하고 리서치에 협조를 동의합니다.

_____	_____	_____
원장님 성함	날짜	서명
_____	_____	_____
연구자	날짜	서명

Appendix M Participant Consent Form for Parents

(English Version)

Parents' Consent Form

University of Leeds, School of Education
PhD Education and ICT
Investigator: Kwengnam KIM
Tel: 44 07774410979, E-mail: edkk@leeds.ac.uk or jasmin5@lycos.co.kr

PhD Thesis Research *Case study: investigation on the potential affordances of MMORPG RuneScape in English learning in terms of vocabulary and reading skills for young learners as EFL (English as a Foreign Language) in the context of South Korea*

The purpose of this letter is to request permission for your child as a participant in my research. I am conducting the research as part of a PhD Thesis Research at the University of Leeds, School of Education in the UK. The aim of this research is to study the relationship between a role playing computer game in real time, RuneScape and English learning for words and reading skills for Korean young learners, in order to find out its possibility of English learning tool to be helpful for constructing a better English educational environment. Your participation is completely voluntary and will not affect your other study. Observation by researcher will take place while you are playing RuneScape. As recommended by ethical guidelines for the conduct of research (University of Leeds), your anonymity will be protected and your confidentiality of data will be also taken to secure, if extracts are included in research publications, reports, or for demonstration purposes. Participants are free to withdraw from the research at any time. I would be very grateful if you could complete the form below, so that I know if your child can take part in this research. If you have any queries or concerns, feel free to contact me, Kwengnam KIM and I will answer to the best. Thank you very much for your consideration in this matter.

Consent Form

I freely and voluntarily consent to take part in this research project. I acknowledge that the research has been explained to me and that all my performance data will be confidentially stored. I understand that I may withdraw from this research at any time and that I may ask any questions about the procedures to be followed.

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of person taking consent	Date	Signature
_____	_____	_____
Researcher	Date	Signature

Participant Consent Form for Parents (Korean Version)

부모님 리서치 동의서

안녕하십니까?

먼저 리서치에 참여해 주신 여러분과 부모님께 진심으로 감사의 말씀을 드립니다. 이 리서치의 목적은 한국 초등학생 (4-6학년)들이 영어공부를 함에 있어서 컴퓨터 대중 참여 롤 플레잉 게임인 RuneScape과 영어 단어와 읽기 공부의 관계를 알아보고 조사해서 좀 더 나은 교육 환경을 만드는데 도움이 되고자 하는 것입니다. 모든 리서치 과정과 결과는 영국에 있는 University of Leeds (리즈 대학교)의 교육대에서 박사 과정을 하고 있는 김굉남(본인)의 박사 논문을 위해 쓰여지고, 수집된 모든 정보는 논문에 관련된 자료로만 사용됩니다. 리서치에 참여하시는 여러분들에 관련된 모든 사항들은 익명 또는 학생1, 학생2 등으로 표시되고 참여자에 관련된 모든 정보는 비밀이 보장됩니다. 리서치 참여는 오로지 스스로의 의사에 따라 참여하는 것이고 리서치에 참여하다가 개인적인 사정 등에 의한 참여 중단도 가능합니다. 다시 한번 여러분의 참여에 감사 드리고 이 동의서를 읽으시고 의문점이나 궁금한 사항이 있으시면 말씀해 주십시오. 또한 리서치 진행 중에 의문사항이나 문제점이 있으면 언제든지 말씀해주십시오. 마지막으로 아래에 참여자 이름과 부모님 서명을 부탁 드립니다.

날짜: 20 년 월 일

리즈대학 박사과정 김 굉남 드림

전화번호 (영국): + 44 07774410979

이메일: edkk@leeds.ac.uk 또는 jasmin5@lycos.co.kr

리서치 동의서

위의 내용을 충분히 이해하고 리서치에 협조를 동의합니다.

_____	_____	_____
참여 학생 이름	날짜	서명
_____	_____	_____
동의 대리인 성함	날짜	서명
_____	_____	_____
연구자	날짜	서명

Appendix N Participant Consent Form

(English Version)

Participant Consent Form

University of Leeds, School of Education
PhD TESOL and ICT
Investigator: Kwengnam KIM
Tel: 44 07774410979, E-mail: edkk@leeds.ac.uk or jasmin5@lycos.co.kr

PhD Thesis Research *Case study: investigation and exploration the correlation between MMORPG RuneScape and English learning in terms of vocabulary and reading skills for young English learners as EFL (English as a Foreign Language) in South Korean context*

The purpose of this letter is to inform the purpose and procedure of this research and request permission for you as a participant. I will conduct the research as part of a PhD Thesis Research at the University of Leeds, School of Education in the UK. The aim of this research is to study the correlation between MMORPG (Massive Multiplayer Online Role-playing Game) RuneScape and English learning for vocabulary and reading skills for Korean young learners, in order to find out its affordances of English learning tool to be helpful for constructing a better English educational environment. Your participation is completely voluntary. Research will be carried out 16 sessions and 30 minutes per session and I will try to adjust your time after finishing all lessons in this institute, not to affect your study. Observation by researcher will take place while you are playing RuneScape and I will try to make you feel comfortable as much as I can. As recommended by ethical guidelines for the conduct of research (University of Leeds), your anonymity will be protected and your confidentiality of data will be also taken to secure, if extracts are included in research publications, reports, or for demonstration purposes. Participants are free to withdraw from the research at any time. I would be very grateful if you could complete the form below, so that I know if you can take part in this research. If you have any queries or concerns, feel free to contact me, Kwengnam KIM and I will answer to the best. Thank you very much for your consideration in this matter.

Participant Consent Form

I freely and voluntarily consent to take part in this research project. I acknowledge that the research has been explained to me and that all my performance data will be confidentially stored. I understand that I may withdraw from this research at any time and that I may ask any questions about the procedures to be followed.

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Researcher	Date	Signature

Participant Consent Form (Korean Version)

리서치 동의서 (참여 학생)

어린이 여러분 안녕하세요?

먼저 이 리서치에 참여해 주신 여러분께 진심으로 감사드려요. 이 리서치의 목적은 한국 초등학생 (4-6학년)들이 영어공부를 함에 있어서 컴퓨터 대중참여 롤플레잉 게임인 RuneScape과 영어 단어와 읽기 공부의 관계를 알아보고 조사해서 좀 더 나은 교육 환경을 만드는데 도움이 되고자 하는 거예요. 모든 리서치 과정과 결과는 영국에 있는 University of Leeds (리즈 대학교)의 교육대에서 박사 과정을 하고 있는 김굉남(본인)의 박사 논문을 위해 쓰여지고, 수집된 모든 정보는 논문에 관련된 자료로만 사용될 겁니다. 리서치에 참여하시는 여러분들에 관련된 모든 사항들은 익명 또는 학생1, 학생2 등으로 표시되고 참여자에 관련된 모든 정보는 비밀이 보장됩니다. 리서치 참여는 오로지 스스로의 의사에 따라 참여하는 것이고 리서치에 참여하다가 개인적인 사정 등에 의한 참여 중단도 언제든지 가능합니다. 리서치는 30분씩 총 16회에 걸쳐 시행될 계획이며 이곳 학원에서 모든 수업 종료 후 학생들의 학업에 지장이 없도록 가능한 시간으로 조정할 께요. 여러분이 RuneScape를 게임하는 동안 제 (연구자)가 관찰을 할 것이며 최대한 방해가 안 되도록 편안한 분위기를 만들도록 노력할께요. 다시 한번 여러분의 참여에 감사 드리고 이 동의서를 읽으시고 의문점이나 궁금한 사항이 있으시면 말해주세요. 또한 리서치 진행 중에 의문사항이나 문제점이 있으면 언제든지 말해주세요. 마지막으로 아래에 여러분의 이름과 사인을 부탁할께요.

날짜: 2011 년 월 일

리즈대학 박사과정 김 굉남 드림

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리서치 동의서 (참여 학생)

위의 내용을 충분히 이해하고 리서치에 협조를 동의합니다.

_____	_____	_____
참여 학생 이름	날짜	서명
_____	_____	_____
연구자	날짜	서명

Appendix O Final Text Data Analytical Framework

Participant Name:

Type of Text \ Sessions		1	2	3	4	5	6	7	8	9	10	11	12	13	14
What language do learners encounter when playing RuneScape?	Generally-used vocabulary														
	Lexical Phrases														
	RuneScape vernacular														
	Lexis specific to computer games														
	Chat speak														
	Emoticons														
	Reduplication														

Appendix P Final Observation Analytical Framework

Daniel 1 (25.08.11) Final Observation Analytical Framework

Category		Observable Behaviours	Examples
RQ1: Vocabulary Strategies	Looking up in the Dictionary	Vocabulary searched for	
		Searching for substitutable vocabulary	
		Repeating searches for vocabulary	
	Verbalising Vocabulary	Saying vocabulary aloud in English	
		Saying English spellings aloud	
		Reading aloud vocabulary meanings in Korean	
	Guessing Word Meanings Verbally	Asking me word meanings	
		Asking or muttering word meanings to themselves	

RQ2: Reading Strategies	Clicking	Skipping	
		Scanning	
		Careful Reading	
		Rereading	
	Verbalising	Muttering to themselves	
		Asking themselves	
		Asking questions to me	
	Reading Texts Aloud	Reading texts aloud in English	
	Translating	Translating texts aloud in Korean	
	Typing	Typing texts	

Appendix Q Ethical Clearance Letter

Research Support
3 Cavendish Road
University of Leeds
Leeds LS2 9JT

Tel: 0113 343 4873
E-mail: j.m.blaikie@adm.leeds.ac.uk

Kwengnam KIM
School of Education
University of Leeds
Leeds, LS2 9JT

AREA Faculty Research Ethics Committee
University of Leeds

21 June 2011

Dear Kwengnam

Title of study: **Case study: investigation and exploration the correlation between MMORPG RuneScape and English learning in terms of vocabulary and reading skills for young learners as EFL in the context of South Korea**

Ethics reference: **AREA 10-124**

I am pleased to inform you that the above research application has been reviewed by the ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee and following receipt of the amendments requested, I can confirm a favourable ethical opinion on the basis described in the application form and supporting documentation as of the date of this letter.

The following documentation was considered:

Document	*Version*	*Date*
AREA 10-124 KwengnamKIM_AREA 10-124_Ethical Review Response.doc	1	15/06/11
AREA 10-124 KwengnamKIM_Headteacher consent form (Korean & English).doc	1	15/06/11
AREA 10-124 KwengnamKIM_Parents consent form (Korean & English).doc	1	15/06/11
AREA 10-124 KwengnamKIM_Participant consent form (Korean & English).doc	1	15/06/11
AREA 10-124 Letter of Ethical Review_AngelaKIM_part1.jpg	1	15/06/11
AREA 10-124 Letter of Ethical Review_AngelaKIM_part2.jpg	1	15/06/11
AREA 10-124 Kwengnam KIM_Ethical Review Form.doc	1	27/04/11
AREA 10-124 Kwengnam KIM_Singnatures with Alice.pdf	1	27/04/11

Please notify the committee if you intend to make any amendments to the original research as submitted at date of this approval. This includes recruitment methodology and all changes must be ethically approved prior to implementation.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited.

Yours sincerely

JBlaikie

Jennifer Blaikie
Research Ethics Administrator
Research Support
On behalf of Dr Anthea Hucklesby
Chair, AREA Faculty Research Ethics Committee

CC: Student's supervisor(s)

Appendix R Examples of Generally-used Vocabulary

1. Examples of Semantic Fields

I present the entire examples in the semantic fields of generally-used vocabulary, according to sub-categories. During the data input process, I put all data together, but when the vocabulary was repeated, I input it just once.

PEOPLE

Human Body:
skeleton head torso leg beard foot soul face bone hand eye corpse skull spirit arm limb blood stomach fist body hair skin

Health & Illness:
wounded mortal wound hurt strong death undead dead healthy ill panacea poison disease sore

Human Relationship:
father woman guest people human lad name foe person companion man men enemy member hero friend brother life twin children fool chum guy lady nobleman acquaintance chap generation gentleman family clansmen duke sister boss boy
Human Feelings:
lucky glad impressed interested unlucky fearsome desperate hostile pity pleasure sorry hate happy afraid pleased fancy delicious agitated creepy distress tired hungry tasty eager anger insane refreshed free

Human Actions:
scatter listen pick stay stab chop seek mine pound bash grapple approach soften watch milk lunge slash block shear meet kidnap fire escape hear net depart wash disguise glare do explain act thank punch kick say navigate hit stand scroll pin feel send receive operate switch remove bake empty play build sit replenish form mix finish call destroy cook walk run talk tell learn study see grab go wait chat bless give attack leave escort rescue enter think defeat show lose head follow look read bring guard speak stay kill get die ask equip reach touch drop wield swear believe cross hurt open turn hide cast strike hold beat untie find take repair hand choose discover rotate swing fill advance smelt use smith make light shoot eat bury dig catch contain cut carry fish count consume close dance view climb grease come raise hang perform put wander mention fight pass tan greet wear mangle squeeze visit face pray meditate work appear move stop shout unlock indicate press enjoy search award place exchange refill stock experiment question pull grind shoo slide display sleep assist feed quit contact produce sigh inter saunter rest embark sniff smash teach throw lend drive

greeting typing mining knitting lying conversation grappling crafting learning guiding cooking healing exploring cutting chatting shopping fishing farming training tooling zipping smelting walking fighting adventuring making running leaving guarding playing travelling entertaining speaking finding selling

Jobs & Actors:
practitioner doomsayer traveller farmer beginner priest cook crafter musician worker mage fletcher explorer player adventurer warrior attacker escortee prisoner guard leader fighter wizard student cultist magic-user ranger shopkeeper newcomer citizen follower manufacturer champion warlock stranger milk-seller bank-teller banker archer potter expert sage lackey trainee acolyte apprentice monarch herald assistant seller woodcutter workman advisor necromancer doctor user king facilitator merchant clerk chef prayer

Describing People & Talking about People*:*
sturdy sturdier young old older pretty lovely beautiful stylish youth elderly friendly funny nice nicer idiot relaxed curious active humour cowardly menacing willing wise vicious honest

Cothing & Fashion:
suit clothes clothing silk footwear boots cape outfit gloves trousers costume stripy uniform apron hat snakeskin body cowl robe satchel skirt gown helmet necklace tiara cloak hairstyle

PEOPLE LIFE

House & Housing:
trapdoor chisel mortgage repayment address drain bottle sack stairs entrance door room exit chamber balcony gallery gate home furnace stove shelves storage ladder pot jug shears roof staircase cellar bucket needle thread bookcase portal floor column urn bowl sink tap pump makeover drawer chest basement window lamp dish kitchen ware cookery container bin stool bed sieve pottery wreath desk plate

Cooking & Food:
onion potato cabbage ingredient recipe roast range milk mushroom meat beef apple tea egg pie culinary kebab cake oven fork dough flour grain bread

Work & Workplace:
craft service trade diplomacy commerce handcraft task office statistics medical job inventory diplomatic tannery churn office profit design checker deposit PIN (Personal Identification Number) account withdraw

Shops & Shopping:
counter price sale boutique cheap emporium purchase

Places & Buildings:
potter's house marketplace market windmill swamp crypt shack city farm house dungeon graveyard catacomb tomb shop mine coast store castle bank building cemetery coastline church town hub bridge tower kingdom shrine region site mill jail maze station

Transportation & Travel:
destination travel location teleport road path crossroads adventure junction t-junction journey trek fork wagon street trip

Outdoor Recreation:
camping camp caravan

WORLD AROUND

Objects:
iron ash wheat feather fountain ruin signpost amulet scarecrow camera money melee coin cash arrow hatchet compass map book stuff sling potion equipment bow winch rune stave staff sword pickaxe sample bronze copper tin metal ore bar dagger hammer anvil tinderbox barrel crate altar cage bubble hook fern box coffin cannon wheel flag backpack earning cowhide gold leather diary armour vat gravestone timer dust weapon property talisman screen hide axe longbow longsword shortbow dummy net dye hay bale oil mass bell rope mould booth crossbow control hopper ring steel millstone kit battleaxe statuette kite shield statue load lever chute tool playlist banner chunk bait bounty plough missile carrier rudder organ rod mace bolt knife scimitar flyer megaphone disc projectile helm cart voucher canoe jewellery

Notional Concepts
Time*: minute now today moment infinite hour day month year age decade past hundred century earlier week date*
Distance: *middle further beyond far nearby*
Size*: small plenty half bulk long short big large huge medium super few*
Dimension*: side*
Measurement*: pile sum amount part dozen piece per pair bit swarming batch loaf percentage*
Direction*: east south north west upstairs downstairs lower south-east above north-west south-west top north-east point towards upper along under over down front below ahead right higher highest up*
Order*: first next later second third fourth latest*
Number*: three four hundred double triple every both two one once another five total forty lot maximum sixty*
Space*: bottom area outside inside hole corner behind edge patch passage top within*
Temperature*: hot*
Weight*: heavy*
Frequency*: random never twice several sometimes ever time*
Shape*: ring square*
Colour*: white red green blue black brown*

Animals & Creatures:
goat giant goblin pet cow fish sheep snake duck drake rat calf chicken pigzilla spider dog fly cockroach bat imp camel tentacle scorpion monster shrimp crow crayfish shellfish trout herring pike salmon vampire beast frog

Natural Environments & Weather:
oak wind pit river rainwater ground earth air cave stone field log tree clay plant moisture water rock leave yew willow trunk stump cactus snow branch land maple bamboo fire flower

2. Examples of Syntactic Fields

I present the entire examples of the second category of syntactic fields with sub-categories: noun, verb, adjective, adverb and interrogative and conjunction, on which I put a narrow focus, as follows:

NOUN:
god goodness everything order peril liberty focus custom peace try care place judgement essence icon music pact payment example speed guide ignorance birthday force purity possession ensemble sceptre harmony note fact faith object sign glory honour locality penalty default page line subsection message digit back myself yourself himself itself feature position sidebar toll presence hotpot round style someone failure rate advice effect filter irony stand potent method thing world information something value reward shot defence way combat nothing battle energy mission spot menu marker step option intervention situation luck duty anything amputation scratch quest guidance backup question rest idea magic trouble feeling cult loyalty ammunition gap spell hint source bonus direction power time type group violence nightmare blow help level creature practice farewell access summary action item material stock collection deed progress difficulty technology number section change fashioning target health food space chance abuse damage ghost treasure skill graph experience list benefit all need colour issue standard setting survey burden introduction game detail query fibre flame challenge tale homeland rich knowledge addition dairy fee achievement set pose work quality animal problem tinkle this guarantee nonsense anyone emphasis circumstance alternative choice mark model everyone breathwithdrawal phase dimension adjustment mystery transportation circumstance customisation sacrifice top-quality process ammo hopelessness success confusion fear realm memory secret content myth rush dominance rid status excuse tip component security suggestion renown cost element requirement reinforcement recovery sort kind test trick lesson history army event entertainment war parade party

VERB:
govern glow reset quiver cover recover stimulate waste stray locate become cause enable allow extract fall spill guess deal plan involve improve respawn mess miss retrieve survive control bear relax last try prevail yield trigger forge like forget create have charge boost sound want prospect summarise depend prefer revamp highlight continue start earn claim complete wish add resolve master assist share spoil interrupt check expand break toggle increase investigate intervene agree lead curse save heal need mark overpower help wish require bless disturb autocast prepare supply live end decide release select clear end happen swarm explore return cancel acquire cost examine keep buy sell train manage collect retrieve begin offer know wonder sprout obtain attempt recharge impress report restore burn understand activate deactivate hover ignore handle refer let owe interest protect gain pay prepare consult repossess suppose mean exorcise vow spend doom remain mind expect hope rattle deserve designate fit collapse maintain dawdle upgrade dismiss confirm crumble provide remember change arrange remind recommend customise combine support consider realign include accept avoid insert vary diminish long assume denote seem forgive describe suggest present anticipate succeed grap worry enhance bother point prove delay notice bid gripe

ADJECTIVE:
forgotten additional better longer wonderful other terrible dismembered lost stolen strange curative separated grateful welcome warped helpful able valuable ready specific based ranged brilliant weary foreign elemental basic some high musical unlimited beware

prevailed holy slime reduced ordinary local muddy spare common silly lack cure necessary appropriate current complex busy wrong good each repeated greater right different slight powerful splendid true mysterious similar little fast exclusive unique useful new preoccupied restless marvellous located private workable shiny dangerous sure extra straight clear accurate rapid many clean unfired enough dark real best final certain whole present worst last ritual free main key available special particular straightforward most great armed efficient crateful flashing low regular normal more full raw handy ideal edible capable familiar rich worth priceless hidden frozen sleek precious fine prized bovine soft hard weak easy suitable same haunting important uncompleted incredible near safe obvious major fragile durable ancient interesting magical greatest studded unstable empty crossed ghostspeak battered armoured perfect least skulled poor wealthy unarmed fabulous wooden partial relative worse amazing sharp simplest various hard-earned closer useless complete finest general human-controlled many impious essential rousing public promising quick fresh recent much deeper briefer plain spiffing

ADVERB:
ago very even mostly simply especially again pretty still around totally anyway somewhere anywhere directly against worthwhile certainly already maybe alone terribly hardly forever strongly across together normally quickly really alternatively also possibly successfully accidentally recently currently please perhaps indeed apparently always rather quite instead exactly through actually perfectly fortunately usually eventually automatically immediately typically surely about away like awfully throughout commonly noticeably only likewise there probably particularly naturally lightly correctly slowly safely well increasingly unfortunately somewhat fully apart alright here just

INTERROGATIVE AND CONJUNCTION:
which during after how many if although overall when who what how why where whoever how much however elsewhere while but before because without until though unless so since whatever then whilst whenever now that otherwise

Appendix S Examples of Fixed Phrases

POLYWORDS

fishing rod	*fishing net*	*heavy metal*	*in fact*
dairy cow	*medical practitioner*	*musical note*	*for example*
bank account	*deposit box*	*water pump*	*by the way*
for free	*magic spell*	*general store*	*hay bale*
birthday cake	*chit-chat*	*food shop*	*tea party*
cooking apple	*question mark*	*wheat field*	
now and again	*right away*	*hither and thither*	
on the way	*skin colour*	*fishing net*	
first of all	*after all*	*at least*	
for sale	*in no time*		

PHRASAL VERBS

Prepositional Phrasal Verbs:

deal with	*go with*	*look at*	*stick to*
depend on	*long for*	*look for*	*talk to*
get to	*look after*	*refer to*	*turn to*

Particle Phrasal Verbs:

carry out	*get back*	*head down*	*set up*
check out	*get over*	*keep on*	*sign up*
chop down	*get through*	*look in*	*sit down*
climb down	*go ahead*	*mess about*	*slide down*
climb up	*go away*	*pass out*	*take off*
close up	*go back*	*pick up*	*try on*
come across	*go down*	*reach out*	*turn off*
come back	*go on*	*rest up*	*turn on*
come through	*go over*	*run away*	*use up*
cut down	*go through*	*run up*	*walk away*
fight back	*go up*	*see through*	*wash away*
find out	*hang back*	*seek out*	*watch out*
get across	*hang on*		

Particle-prepositional Phrasal Verbs:

come up with	*get out of*	*run out of*

Multi-word Verbs:

be based on	*be used to*	*get tired*	*speak to*
be curious about	*be willing to*	*glare at*	*speak with*
be doomed to	*beware of*	*hover over*	*stuck up*
be eager to	*feel free to*	*listen to*	*talk about*
be interested in	*feel refreshed*	*look like*	*trade with*
be likely to	*get there*	*make sure*	*try to*
be located in	*get dangerous*	*manage to*	*walk across*
be ready to	*get separated*	*prefer to*	*walk around*
be supposed to	*get rid of*	*shoo sway*	
be tired of	*get ready to*	*sound like*	

Delexical Verbs

have a chat	*have a look*	*take care*	*make money*
have a rest	*take a rest*	*make progress*	

INSTITUTIONALISED EXPRESSIONS

Greeting & Farewells:

Hello, (again) (there).
Hey, there.
Hi, there.
Greetings (to you) (friend)!
My name is Roddeck and I am the Advisor.
Pleased to meet you.
Welcome to RuneScape.
Hello, ghost, how are you?
- Not very good, actually.
- Very well, (sir, as you wish).
- I'm fine (for now), thanks (actually).

Bye.
Goodbye.
Farewell, (adventurer) (on your travels).
Take care travelling through the swamps.
Good adventuring, traveller.
Be careful out there.
Enjoy your next life.
Good luck!
Good day (to you), (madam) (sir).
Top of the day to you!

Apologies & Thanks:

Oh, (I'm) sorry, (I'm too busy).
Sorry, I was just leaving.
Sorry, I don't speak ghost.
Sorry, I can't stay to chat.
Sorry, I've got to go.
Sorry, friend but I can't do anything with that.

Thank you, (ma'am),(stranger).
Thanks, (I think) (I'll bear it in mind).
Thanks for your help.
Thanks, but no thanks!
Thank you very much, stranger.
Oh, thank you, thank you.

Requests, Suggestions & Offerings:

(Please) Help (me)! Quickly!
Can you do anything for me (him)?
I (We) need some help.
I have some questions.
I've got a question about my adventure.
Leave the man alone.
(Okay), let me help then.
Well, let me see what I can do.
Let me help you relax.
Tell me (more) about this makeover.
Tell me when you get rid of the ghost.
Now tell me what the problem is.
Untie me so we can get out of here!
Take it off and speak to me again.
Take one and let me get back to work.
Please get the ingredients quickly.
Please, get me to Xenia right away!
(Now) (Then) Finish me!
Don't worry about me.
Don't talk to me about cakes.

Well, please return if you change your mind.
Use the portal to leave my office when you're ready.
To get there just follow the path south, through the graveyard.
Go and speak to Brugsen who's standing over there, closer to the building.

I'll help you.
I'll tell you what I can do, though.
I'll get right on it.
I'll have a look.
I'll follow you.
I'll just fill your bank with what you need, then. We'll be here if you change your mind.
Ask me if you need any help.
Speak to me if you need any help.
Come back here and I can help you.
Feel free to pick wheat from our field!

Opinions, Agreeing, Disagreeing & Supposing:

We've got no time to lose.
I think a warlock has stolen it.
I think I'll go now.
I think you'll need to get across to the other gallery.
This spell will take you to your home location.
You will be able to run longer and your life points will increase.
I should think it's because I've lost my head.
I really don't think so.
I don't think she'll be any more trouble.
I don't want to make money.
You're just like my sister.
Your sister sounds like she has the right idea.
You look like you could do with an empty pot.
You don't look very happy.
It looks too unstable for that.
It's the best I can do right now.
I really hope it's still there somewhere.
I can handle this.
It's a pity you had to kill that man.
It's not like anything I have seen before.
It makes you looks like a real cook.
That's the problem.
There always seems to be plenty of wheat there.
I must tell you that this is no ordinary cake, though.

You're right.
Once you've recovered a little, you can start running again.
It should not take you very long at all and I would be awfully grateful.
I will never forget it!
I'll never get them in time now.
He'll sack me!
He's going to kill me.

Right, let's go (right away).
Right, I'll do that.
That's what the snow imp said.
Okay, (I'll pay).
Okay, okay, I can understand you.
Okay, let me help then.

Well, I can't go back and exorcise it.
Well, to be honest, I'm not sure.
I don't believe I've seen you before.
No, I might forget it!
I don't really know!
I'm afraid not.
Not very good, actually.
I don't know, I just wanted this house.
I don't exactly know.
Yuck, I don’t like cabbage.
You can't reach that.

If I'm DEAD, then how is my life not over?
If I can find the skull, the ghost should depart.
If you look in my coffin you'll see my corpse is without its skull.
If you're going to go off that way, I'll meet you back at the crossroads.
Oh, yeah, it might help if I wear this amulet!
I'm sure you can beat these cultists on your own.
The Duke will throw me out onto the street!
She won't give me any money.
I suppose I'd better talk to you then.
I knew you would!
That would explain it.
They acted as if we didn't know what town we were in or something.

Likes & Interests:

I'd like an axe.
I'd (just) like to buy some clothes.
I would like you to get rid of it.
I'm glad you ask!
I'm glad you didn't have to kill her.
Well, that's friendly.
I'm always happy to help a cook in distress.

Yes, I'm impressed.
Ooh, that's interesting.
You look splendid!

Wow, this amulet works!
A marvellous choice.
How marvellous!
Sounds good.
Wow! This is incredible!
Such a hero!
What a tale!
That's lucky, I need someone to do a quest for me.
That's nice.
Splendid!

Great!
Wonderful!

Nice hat!
Lovely Monday!
Good for hitting things!

WH Questions:

Who are you?
Who are the others?
Who does my money go to?
Who's Saradomin?
Who was Dragith Nurn?
Who says that, then?

What?
What am I to do?
What's wrong (with ordinary flour)?
What's that?
What is this place?
What is this hatchet for?
What is there to do around here, (boy)?
What's a blood pact?
What's going on here?
What's down there?
What's the problem?
So, what happens to me now?What has he got himself, into this time?
What houses?
What hides would you like to have tanned?
What level target do you wish to set?
What teleport phase?
What Tasks are you Master of?
On what grounds?
What ever will I do?

How are you doing finding my skull?
How are you getting on with finding the ingredients?
How was I supposed to do that?
How do I get to the Land of Snow?
How do you know the imp's tale is true?
How does resting work?
How did you know who I am?
How should I use your shop?

What's special about resting by a musician?
What are the flyers for?
What are you doing here?
What exactly are you guarding?
What were you planning to do down here?
What do you need (help with)?
So, what do you need to tell me?
What do you do here?
What do you have?
What do you wish to ask about?
What can I do for you (today)?
What can I do with the flour I mill?
What should I do now?
What will happen in the catacombs now?
What could be better than some music to give you the energy to continue?
What would you like the items sent?
What would you like to do?
How can I get one?
How can I help (you)?
How can you possibly get over there?
How could you tell?
How may I help you?
How many do you wish to bake?
How many bars would you like to smelt?
How much more can be said about death?
How dangerous is this?

Where are they?
Where would you like the items sent?
Where can I find money (the ingredients)?
So, where does the flour go then?

Why can't I understand you?
Why do you need me?
Why do I need to run anyway?
Why not?

Responses for WH Questions:

Never mind!
Actually, never mind.
Don't worry. It was nothing.
Well, that's that sorted out.
There you go.
I haven't got that much.

All right.
I will, thanks.
Certainly!
It would be my pleasure, sir.
Of course!

Yes/No Questions:

Is there a reward for this?
Are you sure about this?
Are you sure you want to destroy this object?
Are you going to be alright?
So are you going to give me a quest?
Aren't you selling anything?
Are there any rewards?
Now, was there anything else you wanted?

Now, do you have any questions?
Do you like my disguise?
Do you want to see my wares?
Don't you have any of your own?

Can I help you (at all) (with anything)?
Can I buy some leather then?
Can I ask you (some) questions about running?
Can you repair my items for me?
Can you make me a cake?
Can you tell me how to milk a cow?
Can you teach me about the grand exchange?
Could you lend me some money?
Can we go to Xenia now?
May I ask you to speak with the Grand Exchange Tutor near the entrance for a lesson?

Have you any quests for me?
Have you got rid of the ghost yet?
Have you ever been on a long journey (and simply wanted to have a rest)?

Does this cost me anything?
Did he really?
Did you just understand what I said?
Did you know music has curative properties?
Didn't you used to be called the Bank of Varrock?

Will you help me?
Would you help me?
Would you like a needle and thread for Crafting?
Would you like to buy some fishing equipment?
Would you like me to tan it for you?

Any hints as to where I can find some treasure?
You mean he gets into lots of problems?
Um... so you're going to give me a quest? A quest?
A tale of riches is what you need, what? Is it?
And?
You are here to fight, yes?
Tired of always wearing the same old outfit, day-in, day-out?
Me?
Or, you might like me to go over it again?
Then I bring my wheat here?
(So), interested?
I'm DEAD?
Really?
Anything else?
Please?
Lend you money?
Right, and you want my hard-earned money instead?
Or, you might like me to go over it again?

Responses for Yes/No Questions:

Yes. Yep. Yeah.
Yes, count me in.
Yeah, that's what I thought.
Yes, please.
Yes, we did.
Yes, I can never run as far as I'd like.
Oh, yes, of course.

Of course, I can.
Of course, you can't do anything else while you're resting, other than talk.

You certainly can!
Okay, thanks.
Sure, no problem.
Sure, I'll take it.

No.
Oh, no!
Nope, (still don't understand you).
No, thanks.
No, thank you.
Nothing, thanks.
No, I remember it all.

Appendix T Examples of RuneScape Vernacular

RuneScape Vernacular

REGION:

Lumbridge	*Tiannwn*	*Feldip Hills*	*Kingdom of Misthalin*
Varrock	*Al Kharid*	*Draynor Village*	*Kingdom of Asgarnia*
Edgeville	*Ape Atoll*	*Land of Snow*	*Kharidian Desert*
Falador	*Port Sarim*	*Duel Arena*	*Tutorial Island*
Karamja			

NPCs:

Cook	*Hank*	*Dommik*	*Restless Ghost*
Shopkeeper	*Ned*	*Phileas*	*Melee dummy*
Advisor	*Xenia*	*Thessalia*	*Brugsen Bursen*
Musician	*Reese*	*Estocada*	*Fremennik warrior*
Archer	*Kayle*	*Lachtopher*	*Lumbridge Sage*
Cook's Assistant	*Caitlin*	*Hofuthand*	*Guardsman Peale*
Warrior	*Ilona*	*Beefy Bill*	*Professor Onglewip*
Wizard	*Iffie*	*Barfy Bill*	*Guardsman DeShawn*
Monk	*Naff*	*Maggie*	*Fremennik shipmaster*
Guildmaster	*Ellis*	*Aubury*	*Ali the Leaflet Dropper*
Doomsayer	*Bob*	*Grim Reaper*	*Duke Horacio*
Man	*Morgan*	*Rat Burgiss*	*Magic dummy*
Border Guard	*Baraek*	*Gillie Groats*	*Moe the Miner*
Market Guard	*Imp*	*Explorer Jack*	*Fred the Farmer*
Museum guard	*Lowe*	*Millie Miller*	*Dragith Nurn*
Banker	*Hans*	*Father Aereck*	*Grand Exchange Clerks*
Magic instructor	*Isidor*	*Father Urhney*	*Grand Exchange Tutor*
Melee instructor	*Roddeck*		

PLACES:

Lumbridge Set	*Draynor Manor*	*River Rum*
Lumbridge bank	*Draynor Village Market*	*Grand Exchange*
Lumbridge Swamp	*Potter's House in Draynor*	*Wizard's Tower*
Lumbridge Smithy	*Varrock Marketplace*	*Tolna's Rift*
Lumbridge Church	*Varrock Archery Store*	*Workman's Gate*
Lumbridge Castle	*Al Kharid Toll Gate*	*Champions Guild*
Lumbridge General Store	*Al Kharid Market place*	*Scimitar Shop*
Lumbridge's Fishing Shop	*Ellis' shop in Al Kharid*	*Mill Lane Mill*
Bob's Axes in Lumbridge	*Lowe's Archery Emporium*	*Tomb of Dragith Nurn*
Lumbridge/Draynor Set	*Aubury's Rune Shop*	*Fred's Sheep and*
Lumbridge Catacombs Dungeon	*Thessalia's Fine*	*Chicken Farm*
Dommik's Crafting Store	*Clothing Boutique*	

THINGS:

Air Rune
Mind Rune
Death Rune
Fire Rune
Water Rune
Earth Rune
Body Rune
World Map
Prayer List
Magic lamp
Quest Journals
Magic Spellbook
Wicked Hood
Mini Obelisk
Kayle's Sling
Reese's Sword
Caitlin's Staff
Lumbridge Attire
Lumbridge Cape
Al Kharid Flyer
Air Staff
Explorer's Ring
Telekinetic Grab Spell
Ardougne Teleport Spell
Lvl-4 Enchant Spell
Bind Spell
Weaken Spell
Confuse Spell
Wind Strike Spell
Water Wave Spell
Wind Rush Spell
Fire Bolt Spell
Earth Strike Spell
Low Level Alchemy Spell
Teleport to Ape atoll Spell
Lumbridge Home Teleport Spell
Mobilising Armies Teleport Spell
Lumbridge and Draynor Achievement Diary Earth Talisman Item
Dwarven Army Axe
Zamborakian Cults
Zamborakian Scum
Ghostspeak Amulet
Jade Demon Statuette
Ruby Demon Statuette
Topaz Demon Statutte Diamond
Demon Statuette Rune Kiteshield
Saradomin Kiteshield
Myths of the White Lands

NAMES:

Taskmaters
Goblin
Saradomin
Giant Spider
Herald of Lumbridge
Cultists of Zamorak
Zamborakian Wizards
Lumbridge Guardsmen
King Roald of Misthalin
Skeleton Warlock
Dig Site Workmen

Appendix U Details of Interview Findings

Interview Findings from Learners

Q1. Perceptions about English Language Learning in the School

A) Why do you think we are learning English in the classroom?

Daniel and Steve said that the reason why we needed to learn English was that world people have been using English as a world common language. Kathy and Charles said that especially when we were going abroad for study or business trip in the future, we needed to know English. Personally, Kathy said that she wanted to study abroad when she grew up.

B) What do you think of learning English the way you do in the classroom?

Learners gave positive responses about how to learn English in the classroom. Kathy liked the game using paper cards inside the textbook. Charles and Steve liked the use of computer to show helpful resources. Daniel gave positive feedback of using Power point which made him engage in learning. In particular, Steve said that his teacher had used Power point to play games: For example, students were able to select a quiz among A, B, C, D items on Power point, answer the question and gain points.

C) What do you think is the best method of teaching English to Korean elementary children? Why?

Kathy and Steve said that they liked the current methods in their English classrooms. Daniel and Charles said that using computer games or edutainment games would have been better because playing games was interesting.

Q2. Perceptions about Using Computer Games for English Learning

A) What do you think of using computer games for English learning?

Learners except Kathy gave positive answers, saying that playing computer game was exciting; people were able to play the game at the same time; learning English was boring, but playing the game could make it fun. Kathy said that she had never played computer games for learning English before this research, so she did not have idea about this question.

B) Do you think that computer games are helpful to learn English for Korean children? Why? Or Why not?

All learners gave positive views about the use of computer games for Korean children's learning English, saying that children tended to like playing computer games and it was easy.

C) What do you think the advantages and disadvantages of using computer games for English learning are?

The advantages learners mentioned were that they were able to remember the words in the game well because they turned up repeatedly during the process of playing the game; playing games was easy and exciting; and children were able to learn English having more fun and pleasure. The disadvantages were that children were able to lack concentration on their studying in the classroom, watching other pupils' playing the game; they would be addicted to it; their eyesight would get worse; and they would be annoyed when they were unable to solve the task successfully. Interestingly, Charles said that there was no drawback of playing computer games. This suggests that usually, he was very fond of playing computer games, apart from this research.

Q3. Opinions about Playing RuneScape for English Learning

A) Do you think English learning occurs with playing RuneSape, particularly in terms of vocabulary learning and reading? Why? Or Why not?

All learners gave positive opinions in terms of vocabulary learning. They said that they learned vocabulary by the means of looking up the unknown words in the dictionary. Daniel and Charles said that they felt that their reading ability was also improved and that playing RuneScape was helpful for it.

B) Do you think that playing RuneScape is helpful to learn English for Korean elementary school students? Why? Or Why not?

All learners answered this question positively, saying that playing RuneScape would be helpful, in terms of finding the unknown words and reading the sentences. In particular, Kathy suggested that writing down the unknown words to the word notebook would be helpful after looking them up in the dictionary. This was because the way of memorising English words by carrying around the word notebook has been popular in the Korean context. I mentioned to her that the word list at Yahoo online dictionary automatically saved the words that we had found, if we logged on. She then reminded that she had logged on the dictionary to find the words.

C) After this implementation, can you recommend it to your friends? And are you going to keep playing RuneScape? Why? Or Why not?

All learners said that they would recommend playing RuneScape to their friends: However, Kathy said that girls would not like this game. About the second question, all learners said that they would like to keep playing this game after this research. The reasons were that playing RuneScape was interesting; completing the quests or tasks was very exciting and realistic; and it was helpful to learn English because the language in RuneScape was in English only.

D) Do you think that your English has been improved or your attitude and interest about English learning have been changed after taking part in the research? Why? Or Why not? If then, what are the problems and limitations of playing RuneScape for English learning?

In terms of the improvement of English, Kathy and Steve said that there was no difference between before and after this research: whereas, Daniel and Charles showed positive response. In particular, Daniel said that he saw the same English words in his school exam, so participating in this research was helpful to gain good achievement at school. About the interest about English learning, all learners said that their interest increased slightly more than before this research. Charles said that he disliked English, but he was becoming more interested. In terms of the limitations of RuneScape, only Daniel said that RuneScape had no problem for English learning. Kathy said that some hints, such as pictures like arrow, were very easy to follow without reading the instruction, so they could be a problem and they were not necessary. Charles said that RuneScape was based on English only, so if children did not know English at all, it would be difficult for them to understand. Steve said that he was very annoyed when he was unable to understand English words or sentences because RuneScape had English only.

Interview Findings from the English Teacher

Q1. Perceptions about English Teaching and Learning in Korea

A) What is your opinion about teaching English to elementary school children in Korea?

The English teacher said that when teaching a foreign language, speaking should be prior to other skills ideally, but that, for Korean children, thinking, speaking and writing a mother language was more important than a foreign language because sometimes English could be a threat to their Korean. She suggested that Korean children's levels in terms of reading and listening should be considered.

B) Do you think it is the proper age to start learning English? Why?

The English teacher said that it depended on the degree of learning English: For example, kindergarten students could begin learning chants or vocabulary; and the first grade of elementary school students could begin learning easy level storybooks.

C) What do you think is the best method of teaching English to Korean children? Why?

The English teacher said that the more elementary school students would spend time learning English, the more their English abilities would be improved. If their spending time was the same, definitely they had to begin with interesting and motivating materials.

D) What do you think of practising English language through game-like activities?

The English teacher said that there was no correlation between them: only children could obtain a few interesting words or expressions in the context.

Q2. Perceptions about Using Computer Games for English Learning

A) What do you think of using computer games for English learning?

The English teacher gave a strongly negative opinion about it, because her son was fond of playing computer games too much and she usually had problem about it.

B) Do you think that computer games are helpful to learn English for Korean children? Why? Or Why not?

Based on the above answer, she said 'No'.

C) What do you think the advantages and disadvantages of using computer games for English learning are?

The English teacher said that the advantage was only that children were not afraid of English when thinking of English or speaking English. The disadvantage was that the disadvantages of playing computer games still remained, although it was for English learning.

Q3. Opinions about Learners' Playing RuneScape Game for English Learning

A) Do you think that learners like to play RuneScape? Why? Or Why not?

The English teacher said 'Yes'. She explained the reason that it was a game. Children tended to like the game.

B) Do you think that their English has been improved or their attitude and interest about English have been changed after taking part in the research? Why? Or Why not?

The English teacher said that there was no difference between before and after.

C) Do you think that playing RuneScape (using commercial game for interest rather than edutainment game with the environment consisting of English language) is helpful to

learn English for Korean elementary school students? Why? Or Why not? Then, what are the problems or limitations of using this game for English learning?

The English teacher said that the question arose as to whether or not children would try to increase their reading speed to play the game well, because they tended to understand the game rules or play the game with only picture or movement without reading the texts or instructions: whereas, the adults tended to concentrate on the reading the texts, not following the flow of the game, so they were unable to enjoy the game itself, unlike children.

Interview Findings from the Head Teacher

Q1. Perceptions about English Learning in Korea

A) What is your opinion on learning English to the elementary school children in Korea?

The head teacher said that Korean children needed more output activities, such as speaking and writing when learning English.

B) Do you think it is the proper age to start learning English? Why?

The head teacher said that the earlier children exposed to the English environments, the better they start to learn English, but only after they completed their reading comprehension in a mother language.

C) What do you think is the better methods of learning English to Korean children? Why?

The head teacher said that their motivation of learning a foreign language was stronger than adults, in terms of the "culture".

D) What do you think of practising English language through game-like activities?

The head teacher said that most of Koreans had a preconception that learning English would be very hard, so game activities would be very good to get rid of this preconception.

Q2. Perceptions about Using Computer Games for English Learning

A) What do you think of using computer games for English learning?

The head teacher said that he thought of it as a positive thing, because the numbers of students of using the computer has been increased.

B) Do you think that computer games are helpful to learn English for Korean children? Why? Or Why not?

The head teacher said it positively because the younger students tended to be used to playing computer games.

C) What do you think the advantages and disadvantages of using computer games for English learning are?

The head teacher said that the advantage would be that children could become familiar with English pragmatically through playing computer games: the disadvantage would be that the literacy part could not be improved.

Q3. Opinions about Learners' Playing RuneScape Game for English Learning

A) Do you think that learners like to play RuneScape? Why? Or Why not?

The head teacher said that the answer would be different, depending on the student's personality: For example, if a student was passive, he or she could think of playing the game as a difficult thing.

B) Do you think that their English has been improved or their attitude and interest about English have been changed after taking part in the research? Why? Or Why not?
No answer.

C) Do you think that playing RuneScape (using commercial game for interest rather than edutainment game with the environment consisting of English language) is helpful to learn English for Korean elementary school students? Why? Or Why not? Then, what are the problems or limitations of using this game for English learning?
The head teacher said that it would be helpful for Korean children to learn English, because it could be a kind of tool for English learning: However, if they did not have enough background knowledge, there could be a limitation when they understood in-depth contents.