

An Investigation of English-L1 KHL Learners' Written Errors and Pedagogical Implications

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AN INVESTIGATION OF ENGLISH-L1 KHL LEARNERS' WRITTEN ERRORS AND PEDAGOGICAL IMPLICATIONS

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A thesis in fulfilment of the requirements for the degree of

Doctor of Philosophy



School of Humanities and Language

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Abstract 350 words maximum: (PLEASE TYPE)

This study examines the written errors of two-hundred-eighty-eight English-L1 tertiary intermediate KHL learners. The study identified and categorised high frequency orthographic, grammatical and lexical errors, and derived their possible causes to discuss the pedagogical implications that they impose.

In orthographic errors, the study identified errors due to phonetic similarity in vowels, errors due to sound alteration, and errors due to phonetic closeness in consonants to be the main error categories. The errors show that KHL learners experience difficulty due to lack of corresponding sounds between English and Korean sounds, and also due to inconsistency in phonemes and graphemes.

In grammatical errors, the study identified case particle errors to be the most significant, with the substitutions genitive -uy by locative-static -ey, locative-dynamic -eyse by locative-static -ey, topic-contrast -un/nun by nominative -i/ka and nominative -i/ka by accusative -ul/lul to be the most frequent substitution errors in order of frequency. The main causes of such errors include overreliance on spoken forms, functional similarity between substituted particles, and lack of explanation in learning resources and instruction. The errors show the need for a review of the presentation of such particles in course books, and development of pedagogical grammar for learners of English backgrounds.

In lexical errors, the most significant error categories in order of frequency were errors of redundancy, simplification, and semantic similarity. There appears to be both interlingual and intralingual factors for the cause of these errors as well as factors of induced errors that involve faulty instructions and resource materials. The results indicate a strong need for the development of a heritage learner-specific pedagogy and instructional materials such as a KHL dictionary accompanied by corresponding classroom instruction or remedial class.

The study noted that KHL learners have their own distinct language characteristics which, in turn, call for a KHL stream language curriculum. It is suggested that there is a need for systematic developments at a policy and curriculum level for an adequate provision and participation in heritage language learning and teaching, as well as pedagogical improvements where high frequency error items are effectively addressed in KHL instructions and resource materials.

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Abstract

This study examines the written errors of two-hundred-eighty-eight English-L1 tertiary intermediate KHL learners. The study identified and categorised high frequency orthographic, grammatical and lexical errors, and derived their possible causes to discuss the pedagogical implications that they impose.

In orthographic errors, the study identified errors due to phonetic similarity in vowels, errors due to sound alteration, and errors due to phonetic closeness in consonants to be the main error categories. The errors show that KHL learners experience difficulty due to lack of corresponding sounds between English and Korean sounds, and also due to inconsistency in phonemes and graphemes.

In grammatical errors, the study identified case particle errors to be the most significant, with the substitutions genitive -uy by locative-static -ey, locative-dynamic -eyse by locative-static -ey, topic-contrast -un/nun by nominative -i/ka and nominative -i/ka by accusative -ul/lul to be the most frequent substitution errors in order of frequency. The main causes of such errors include overreliance on spoken forms, functional similarity between substituted particles, and lack of explanation in learning resources and instruction. The errors show the need for a review of the presentation of such particles in course books, and development of pedagogical grammar for learners of English backgrounds.

In lexical errors, the most significant error categories in order of frequency were errors of redundancy, simplification, and semantic similarity. There appears to be both interlingual and intralingual factors for the cause of these errors as well as factors of induced errors that involve faulty instructions and resource materials. The results indicate a strong need for the development of a heritage learner-specific pedagogy and instructional materials such as a KHL dictionary accompanied by corresponding classroom instruction or remedial class.

The study noted that KHL learners have their own distinct language characteristics which, in turn, call for a KHL stream language curriculum. It is suggested that there is a need for systematic developments at a policy and curriculum level for an adequate provision and participation in heritage language learning and teaching, as well as

pedagogical improvements where high frequency error items are effectively addressed in KHL instructions and resource materials.

Abbreviations and Symbols

* Erroneous item

+ Requires addition of a linguistic item

 $\sqrt{}$ Correct version of an erroneous item

ø empty coda; alphabet ng for the start of a syllable

Syllable boundary (not used for particle names)

English translation

Bold Used for the corresponding erroneous item in the English translation

Italics Used for Romanised characters

EA Error Analysis

English-L1 English as a first language

HLA Heritage Language Acquisition

HLL Heritage Language Learner

KFL Korean as a Foreign Language

KHL Korean as a Heritage Language

KSL Korean as a Second Language

L1 First Language

L2 Second Language

SLA Second Language Acquisition

This study uses the Yale Romanisation System for the romanisation of Korean characters.

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CHAPTER 1 INTRODUCTION

1.1 Background of the Study

The Error Analysis (EA) approach to second and foreign language learning and teaching has been a primary source of interest in the last few decades due to its efficiency in exploring the process of Second Language Acquisition (SLA) of second language learners. Making errors is considered a common and natural phenomenon in the language learning process, and through the analysis of learners' errors, language teachers and instructors can diagnose the areas of difficulty of learners and thus identify and assess their learning stages. Furthermore, learners' errors can provide insights into the development processes and strategies of SLA, and more importantly can be used as an indispensable tool for learners to explore and discover the nature of the language they are learning (Corder, 1981). In this regard, errors are an important by-product which occurs as a result of the SLA process.

The application of EA in regards to Asian language education (including Korean) has been gaining increasing interest. This interest reflects the growing interest in learning Korean as a Foreign or Second Language (KFL/KSL)¹ and Korean as a Heritage Language (KHL). EA studies in Korean have attempted to compensate for the lack of KFL/KSL and KHL teaching materials based on a strong empirical basis, which is evidenced by extensive applications in studies such as Sohn H-M (1986); Se (1992); Wang H-S (1995); Shin S-C (2001b, 2006c, 2007a); Ko (2002); Pyun and Lee-Smith (2011). EA research in Korean has, however, encountered several problems. Firstly, the problem with most of the EA studies in Korean is the lack of balance and focus. Some studies are based on data from mixed learner groups so they struggle to provide sufficient information on a specific language group (for example, Kim EJ, 2003a), while others are limited to the presentation and description of errors and lack detailed explanations about the cause of errors (for example, Kim HH, 2001a). Another problem is that some studies on Heritage Language Learners (HLLs) and anecdotic analyses

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¹ Following Ellis' (1994:11-12) definition of a 'second language' that "plays an institutional and social role in the community ...as a recognized means of communication among members who speak some other language as their mother tongue" and 'foreign language' that "plays no major role in the community and is primarily learnt only in the classroom", the term 'KFL' in this study will refer to Korean language learning that occurs in a foreign setting in formal language classrooms, and 'KSL' will refer to the broader context of learning Korean in a second language context.

indicate that there is a considerable gap in the linguistic features and nature of learning difficulty between foreign or second language learners and HLLs even if they learn the same language (Pyun and Lee-Smith, 2011; Kang H-S and Kim, 2011; Lee H-Y, 2012). The focus has mostly been on the nature of errors produced by KFL/KSL learners, and there is yet a lack of information about the nature of KHL learners' errors to support these suggestions.

The central problem in researching heritage languages is that HLLs are difficult to define due to their heterogeneous nature in, for example, language use, contact, culture, background, and proficiency, and so their sociolinguistic factors vary significantly. One of the limitations of EA is that it cannot provide a 'complete' picture of learner language use, and hence it is particularly problematic in the heritage language context when aiming to derive generalisations about their errors. EA studies in heritage language learning such as Kim EJ (2003a); Lee S-H et al. (2009); Pyun and Lee-Smith (2011); Lee-Ellis (2011) have been limited either in linguistic scope, number of participants, participant information or variability, and thus although they can provide certain implications about HLLs and pedagogy, there is not yet a concrete theoretical framework on the teaching and learning of HLLs. More useful and valid information on HLLs can be expected from a study based on large corpora. In this respect, it is appropriate to implement a corpus-based methodology in order to compensate for the lack of accurate descriptions of heritage learner language use. In particular, the strengths of corpus data can be maximised when applied to heritage language research as it "pools together the intuitions of a great number of speakers and makes linguistic analysis more objective" (Meenery and Xiao, 2010:1).

With the considerable increase of HLLs learning Korean in countries such as Australia where English is the official language and used widely as a first language (L1), it is timely and appropriate to establish common errors in KHL learners using a corpusbased methodology, to provide KHL teachers, instructors and researchers with linguistic and pedagogical information that presents the most difficult linguistic areas or items to students whose L1 or dominant language is English. In addition, because it is now a common finding that HLLs' speaking and comprehension skills are comparatively more competent than their written skills, it is important to establish a framework for the characteristics of their written language, for future developments in heritage language materials and resources. While an analysis of KHL learners' spoken language is also

valuable, the features of errors by type, pattern and category are more apparent in written language than spoken language, and thus it is expected that an analysis of KHL learners' written language will bring significant contributions to pedagogical necessities. This research thus focuses on high frequency orthographic, lexical and grammatical written errors produced by KHL learners from various English-speaking countries, using both quantitative and qualitative methods. Quantitative investigations of errors produced by a specific language group should provide both instructors and researchers with information on the principal areas of difficulties that such students would experience. This statistical information will give them the 'overall picture' about the main areas of difficulty experienced by students. By focusing on data from students with a specific language background, it is possible to perform a more detailed analysis of the particular error and hence understand the linguistic nature of the error and explain its cause. Only when it is understood why the error has occurred, instructors and curriculum developers can provide possible solutions to the problem areas for effective ordinary and remedial teaching. Along with the findings from previous studies focused on KFL learners, this research will further provide information about the main areas of difficulties that KHL learners in an English-speaking context would have, which will then provide useful insights regarding effective pedagogical strategies.

1.2 Purpose

This study aims to provide relevant quantitative and qualitative explanations on patterns of orthographic, lexical and grammatical errors that KHL learners make in their written compositions in Korean by attempting to:

- (a) identify the key orthographic, lexical and grammatical features that present particular difficulties to the English-speaking heritage learners of Korean;
- (b) classify and categorise the main orthographic, lexical and grammatical errors in terms of their type, frequency and occurrence rate;
- (c) examine and explain the cause of those problematic features by utilising linguistic tools and insights from previous studies;
- (d) provide possible explanations for any similarities or differences between KHL and KFL learner errors; and

(e) suggest likely effective learning and teaching strategies in terms of the type of exercises that might resolve or reduce the language difficulties with regards to selected key error components.

1.3 Significance

This study proposes significance at three levels. First, given the considerable increase of English-speaking HLLs of Korean, there is a need to look into the nature of their orthographic, lexical and grammatical errors in their written production to offer an adequate linguistic explanation. A good understanding of the nature of the errors will provide insights into effective pedagogical measures focused on HLLs, which will in turn lead to future development and improvement of materials and techniques required for the teaching and learning of heritage languages. Second, by incorporating a corpusbased analysis with extensive amounts of data from multiple English-L1 countries, the study will be able to provide a 'big picture' of the nature of KHL learners' competence or incompetence in Korean. A statistical analysis of errors over the three different linguistic areas will assist in providing more specific and yet more comprehensive and adequate information that has not been revealed in previous studies based on sporadic or seasonal data. Third, in general, it is anticipated that this study will bring more scholarly attention to the teaching and learning of KHL and lead to more interest in investigating various KHL-related research topics. In addition, a research-based language program may assist in upgrading the status of Korean Heritage Language programs.

1.4 Limitations

Although this research was carefully prepared, there are some limitations.

The subjects of this study are limited to tertiary intermediate level KHL students from various standard English backgrounds, who have not been categorised by family backgrounds such as number of family members, dialect or previous experience or contact with Korean language in an informal environment, but solely by the number of hours they had undertaken in formal Korean language education in a tertiary setting. Therefore, the results of these study do not reflect any individual or subgroup variables that may affect the qualitative results.

The study is also not a comparative study between KFL and KHL learner errors, and the comparisons in the discussions are based on results of KFL learner errors in previous studies to assist in the understanding of distinctness of certain KHL learner-specific characteristics.

The pedagogical discussions in this study are implications derived from the results, and not pedagogical strategies as the effect of such implications have not been tried in a remedial or actual class.

1.5 Organisation of the Dissertation

Chapter 1 of this study provides background information and an overview of current trends in heritage language acquisition (HLA) research, the purpose, significance and limitations of this study. Chapter 2 reviews second/foreign language learning and teaching theories and previous studies on heritage language learning, then theories and previous studies of error analysis and corpus-based studies. Chapter 3 presents the methodology, including research questions and hypotheses, along with information on participants, data collection techniques and analysis methods which are used to test the research questions and hypotheses. Chapter 4, 5 and 6 provides a detailed analysis of findings of high frequency orthographic, lexical and grammatical errors. Chapter 7 presents discussions on the results. Chapter 8 concludes with theoretical and pedagogical strategies and implications and directions for future research.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

The challenges of heritage language research lie in defining Heritage Language Learners (HLLs) from all perspectives that suit their various socio-educational factors, which leads to difficulties in describing the overall nature of their language based on sporadic data. With the increasing number of learners who are learning Korean as a Heritage Language, there has been a need to establish concrete pedagogical solutions that meet their overall needs. However, several problems exist in supporting this issue. Firstly, while second language learning and teaching theories emphasise the importance of grammatical instruction, especially for those more grammatically complex languages such as Korean, there have been some limitations in deducing solutions from previous studies due to the limited number of grammatical research on KHL learners. This is particularly important as there has been increasing evidence (Au et al., 2002; Kagan, 2005) that HLLs' written proficiency is inferior to their spoken or receptive skills. Furthermore, where studies (Kagan, 2005; Lee H-Y, 2012) argue that HLLs are in need of a differentiated teaching method from foreign language learners, there has not yet been a clear distinction between the nature of HLLs and foreign language learners' language use. The primary problem may be traced back to methodological issues, where traditional Error Analysis (EA) methods may not serve to satisfy the information needed to understand HLLs. While traditional EA forms a basic framework for second language acquisition research, it has been criticised for its methodological and limitations in scope which may not be suitable for a heterogeneous language population such as HLLs. Thus, EA for heritage language research can be better utilised when assisted by a corpus-based analysis. The two methodologies accompanied by each other can promote effective pedagogical strategies based on a more adequate analysis, which imposes significance on the more complex and demanding languages such as Korean². This chapter reviews some important second/foreign language learning and teaching theories and methodologies, and consequently current issues and trends in heritage language

² The Foreign Service Institute (FSI) of the U.S. Department of State ranked Korean as an exceptionally difficult language to learn for native English speakers.

learning, followed by previous literature on the significance and limitations of Error Analysis and how it can be accompanied by a corpus-based analysis.

2.2 Second Language Learning and Teaching

This section reviews theoretical and methodological aspects of second language acquisition and learning, before discussing issues and trends in HLA and learning and the pedagogical implications that EA and corpus-based analyses may have upon them.

2.2.1 Theoretical Aspects in Second Language Acquisition and Learning

One of the key issues of language learning is the concept of second language learning (SLL) versus Second Language Acquisition (SLA). Lightbown (2000:439) refers to Krashen's (1982) theory of SLA, who posited that 'acquisition' refers to "linguistic abilities which learners develop in the absence of metalinguistic instruction". This reflects the process of natural assimilation which refers to an unconscious cognitive development in processing linguistic concepts, structure and semantics (Shine, 2011). On the other hand, 'learning' refers to "what they come to know about the language through formal instruction or metalinguistic analysis" (Lightbown, 2000:439), which is the conscious process involving the active participation of the learner in learning the language.

A number of theories on SLA have been formulated in an attempt to describe the process of language learning (Gitsaki, 1998). Reflecting a number of studies (Ellis, 2008), there are six central theories of SLA: the monitor model, universal hypothesis, critical period hypothesis, cognitive theory, acculturation theory and interaction hypothesis. The Monitor hypothesis developed by Krashen (1982) is one of the most influential and comprehensive theories of SLA which is based on five central hypotheses which have important implications for language teaching. These are briefly underlined below (p10-32):

(a) The Acquisition versus Learning Hypothesis claims that the 'acquisition' of a language is a subconscious process similar to that of L1 acquisition, while the 'learning' of it is a conscious process. While adult second language learners are often associated with 'learning' rather than 'acquisition', Krashen (1982) notes that adults also acquire language, although not at a native-like proficiency.

- (b) *The Natural Order Hypothesis* claims that second language structures are acquired in a predictable order. Studies such as Dulay and Burt (1974) support this hypothesis for ESL learners, which suggests that different subgroups of second language acquirers show statistically significant similarities in acquiring grammatical structures.
- (c) *The Monitor Hypothesis* suggests that the learning of a language functions as a 'monitor' of acquired utterances. Hence conscious learning plays a limited role in second language performance, and can only be utilised when the learner has satisfactory amount of time, has a focus on form, and knows the second language rules.
- (d) The Input Hypothesis claims that acquisition of a language only occurs with comprehensible input. Acquisition only happens when given the learner's level of competence i, input must contain (i+1) information.
- (e) *The Affective Filter Hypothesis* suggests that comprehensible input is not fully achieved if there is an interruption in affective variables. Factors include motivation, self-confidence and anxiety.

Despite its influence, however, Krashen's Monitor Hypothesis Theory received criticisms mainly due to definitional inadequacy and its lack of reliability as it is not based on well-established theories and research (Mclaughlin, 1987). In particular, Mclaughlin (1990) rejects the idea of defining second language theory in terms of 'consciousness' and 'unconsciousness' as the terms are "too difficult to define empirically to be useful theoretically." Brown HD (2007) notes that Krashen's Monitor Theory proves useful as a basis for simple teaching methodologies, but seems to have been over-exaggerated with its over-simplicity.

The Universal Grammar (UG) theory is another influential theory in language acquisition originally claimed by Chomsky (1986), but was primarily concerned with children's L1 acquisition. The fundamental idea of UG is that each language has its own "parameters" from which "settings" are learned on the basis of linguistic data, where the ultimate form of any language is an innate set of principles with features exclusive from UG labelled as "core grammar" (Hadley, 2001). The UG theory was applied to the second language in order to provide explanations on the development of the learner's interlanguage. While child L1 acquisition is largely guided by innate knowledge that is assumed to be a component of UG, evidence also suggests that adults have some sort of access to UG too, which they use in their development of foreign language acquisition (Gitsaki, 1998). Although UG is considered to be a comprehensive theory of grammar

which can generate a number of theories on second language acquisition³, it is still yet inadequate to cover the general field due to the lack of empirical evidence.

'Successful' acquisition of a language is assumed to be dependent on the access of UG during the Critical Period. The Critical Period Hypothesis (CPH) states that the complete and natural acquisition of a language can occur only between ages two to puberty (Gürsoy, 2011), and thus children and adults acquire languages differently. There exist two systems within the CPH that explain this view: (a) "a rule-based analytic procedural system" which focuses on computing well-formed sentences, and (b) "a formulaic, exemplar-based declarative system" which is largely memory-based (Nikolov and Djigunovic, 2006:1). Younger language learners generally acquire a second language through memory-based processes, and adults learn by rule-based learning, and because procedural memory gradually declines, natural language acquisition is only available to younger learners. Claims by Selinker (1972) and Krashen (1973) suggest that the lateralisation of the brain is complete before puberty, and that perhaps a mere 5% of adults reactivate such latent language structure hence achieve ultimate attainment of a second language. Schumann (2013) also argues that although some adults possess the ability to learn and produce a second language with high proficiency, this is not the general case and that adult L2 acquisition is not universal.

A psychological perspective of second language acquisition involves cognitive theories ⁴ that suggest that second language acquisition is concerned with mental processes, which appears as a fundamentally different perspective to other SLA theories. This view suggests that learners creatively construct rules cognitively in the target language using rules acquired, building on competence in the comprehension and production of the language on their own (Conrad C, 2001). Language acquisition in this view is thus dependent on more general cognitive abilities rather than linguistic ones (Berman, 1987 reprinted in Gitsaki, 1998). The main downfall with this view is that

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³ Corder (1979) suggested a model which claims that a second language learner's learning is initiated from a basic UG which is built upon to make complex rules according to what the learner is exposed to. Dulay and Burt (1974) suggested the Creative Construction theory, which suggests that learners of a second language utilise their 'universal innate mechanisms' to construct hypotheses about their acquiring language system so they can progressively reconstruct rules when they are confronted with mismatches between what they produce and what they are exposed to.

⁴ The dominant model in the cognitive approach is the 'computational model' (Ellis, 2008:405-406) which suggests that learners first memorise certain language features by short-term memory, then convert some of this memory into long-term memory as second language knowledge, then use this knowledge to produce some sort of spoken output.

cognition is not the only factor that learners rely on to construct rules and assumptions about their target language (Conrad C, 2001), and that there is little theoretical psychological evidence to support a comprehensive theory that the development of a language is exclusively based on cognitive skills (Schmidt, 1992).

From a more sociolinguistic-oriented perspective, Schumann (1987, reprinted in Menezes (2013:29)) proposes the Acculturation Theory that the acquisition of a second language is dependent on the degree to which the learner is "socially and psychologically integrated into the target language group". Social distance refers to the learner's contact with the social group speaking the target language, and psychological distance refers to various individual affective factors that the learner may experience, such as language shock, culture shock, stress etc. (Gitsaki, 1998). Ellis (2008) however notes that Schumann's theory fails to explain "how social factors influence the *quality* of contact that learners experience" (p.329).

An attempt to explain SLA from a view rejecting Krashen's Input Hypothesis is Long's (1981,1996) interaction hypothesis. The central argument Long (1996) proposes is that modifications by learners in interaction are more noticeable than those by the input provided by native speakers, where "negotiation for meaning...facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways (Long, 1996:451-452). In other words, the interaction hypothesis combines both the input and output hypothesis⁵, claiming to be a practical method for the learner to acquire a language through production of what has been learned. The interaction hypothesis hence appears to be one of the strongest views in relation to discourse, and proposes to be one of the most effective methods of second language acquisition.

2.2.2 Second/Foreign Language Teaching Methodologies

Second language teaching theories have evolved around grammatical, communicative, cognitive and sociological skills, generating a range of comprehensive and specific theories. Hammerly (1971:499) notes the importance of building theories upon "a scientific basis of empirical research" and believes that "with the exception of those students whose only goal is learning to read, the initial—but by no means the

⁵ Swain's Output Hypothesis (1985) claims that the action of producing a language through speaking and writing is what improves second language acquisition.

ultimate—goal of second language instruction should be the attainment of fluency and accuracy." In relation to this point, it is important that errors and areas of difficulty experienced by second language learners should be explicitly addressed with the purpose of improving their communicative skills, and thus appropriate theories and methods for this purpose should be arranged accordingly. Four main views of second language teaching methods and approaches will be discussed in this section: structural, functional, interactive and sociological.

The structural view is based on structurally related elements, i.e. grammar, which involves treating grammatical and syntactic elements as isolated components in L2 teaching (Mora, 2013). The main approaches of the structural view are the grammar-translation approach and audio-lingual method. The grammar-translation approach is the 'traditional' approach that combines the following assumptions (Hammerly, 1971:499): (a) language is primarily graphic; (b) the main purpose of SLA research is either for the acquisition of a tool for literary research or for the development of the learner's logical powers; and (c) the process of foreign language learning is deductive⁶. Grammar is acquired through the memorisation of grammatical rules and vocabulary lists, which are then applied deductively by the translation of disconnected lexical or grammatical items from the target language into their mother tongue (Ketabi and Shahraki, 2011). This method, however, usually results in very low amounts of required competence as it faces a high affective filter, and while errors may be addressed through repetitive grammatical tasks, little or no attention is given to communicative competence (Krashen, 1982).

The audio-lingual method builds on three main assumptions (Hammerly, 1971:502): (a) language is both about equally oral and graphic; (b) the main purpose of language learning is communication; and (c) second language learning is primarily inductive. This method is based on the principles of behaviourism which claims that learning is 'habit formation', hence material is presented in the form of dialogues, which are to be memorised and overlearned (Ketabi and Shahraki, 2011; Shine, 2011; Mora, 2013). Unlike the grammar-translation approach, the audio-lingual method emphasises the teaching of grammatical structures rather than vocabulary which is taught inductively, and much importance is given to the production of native-like

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⁶ Foreign language learning is deductive, whereas second language learning tends to be more inductive due to immersion in the socio-cultural context where the target language functions as a formal and informal medium of communication.

pronunciation. Without attention to content and meaning, however, Richards and Rodgers (2014)criticise the method to be theoretically unsound in terms of both language theory and learning theory, and also that learners are unable to transfer skills acquired through this method to real communication situations.

Functional methods of language teaching views language as a tool to express or accomplish a certain function, and hence places emphasis on the practical production of grammatical and lexical items (Shine, 2011; Richards and Rodgers, 2014). Main functional methods include the reading and oral-situational approach. The reading approach claimed that reading competence can be achieved through the introduction of grammatical and lexical items through reading texts, and hence only the grammar and vocabulary necessary for the comprehension of the reading texts were taught (Mora, 2013). Thus vocabulary knowledge expanded quickly and efficiently through this approach, but little emphasis was given to oral-aural skills, hence learners were unable to communicate in the target language (Celce-Murcia, 2001). The oral-situational approach on the other hand, placed importance on the accuracy of pronunciation and grammar, where lexical and grammatical items were presented according to practical situations being practiced. However even with its focus on practicality, this approach also faced similar criticisms to those of the audio-lingual approach (Ketabi and Shahraki, 2011).

The interactive view perceives language as a component of social relations, hence focuses on conversational patterns and techniques (Richards and Rodgers, 2014). Main approaches of the interactive view include the direct, natural and communicative approach. The direct approach surfaced as a reaction to the traditional grammar-translation approach around the 1900s, based on the assumptions that (a) language is both oral and graphic; (b) the main purpose of second language learning is communication; and (c) the process of second language acquisition is inductive (Hammerly, 1971:500). The focus of this approach is on pronunciation, hence material is presented orally in the target language with no translations and activities mainly include oral interactions (Shine, 2011). Pronunciation is taught by imitation and grammar is taught inductively and hence may lead to habit formation, but due to its lack of structural instruction and systematic activities and its demand for high student motivation, this approach has been criticised on the grounds of its inefficiency (Hammerly, 1971; Krashen, 1982).

Sharing a common theoretical basis with the communicative approach, the natural approach is based on Krashen's Monitor Hypothesis theory (1982), developed by Krashen and Terrell (1983). The approach emphasises the need to lower the affective filter so that speech production 'emerges' on its own accord. The focus of instruction of the natural approach is on communication rather than form, and hence student oral production is encouraged without being forced and with minimal error correction in early stages (Krashen, 1982; Krashen and Terrell, 1983). The natural approach is generally accepted as a comprehensive method of language teaching, but although Krashen (1982) claims that the only weakness of the natural approach is that is remains a classroom method, Hedge (2000) criticises that the approach is only restricted to beginner levels and listening and reading skills, while Richards and Rodgers (2014) notes that it is difficult to determine specific communicative goals suited for all students.

With an increasing demand for communicative competence, the communicative approach was introduced by anthropological and Firthian linguists (Hymes (1972; Halliday, 1973 reprinted in Ketabi and Shahraki (2011)) and to shift away from a focus on accuracy and forms to a focus on communication and fluency (Ketabi and Shahraki, 2011). The communicative approach focuses on communicative competence, which is characterised as follows (Mora, 2013): (a) applies to both spoken and written language; (b) it is context specific; and (c) represents a shift from focussing on grammatical features to communicative features of a language. Although this approach has dominated the last three decades, with its over-emphasis on communication and fluency, the teaching of grammatical accuracy and explicit instruction of errors was naturally set aside as a secondary concern. In this context, there was a rejection of form-focussed instruction which increased the ineffectiveness of teaching strategies in more advanced learner levels (Long, 1997).

On a sociological outlook, the notion of Community of Practice (CoP) was developed by Lave and Wenger (1991) and has gained significant ground in applications to teaching and learning in recent years. Burns and Richards (2012) notes two characteristics of a CoP: (a) it involves a group of members with common interests who can interact with each other to achieve shared goals; and (b) its objectives are to explore and resolve issues put forward by members in relation to the workplace practices they take part in. Wenger (1998:73) notes that a CoP is defined based on the commitment to mutual engagement, a joint enterprise and a shared repertoire, and in

relation to second language acquisition, Eckert (2006) claims that through such shared practice it "is thus a rich locus for the study of situated language use, of language change, and of the very process of conventionalisation that underlies both" (p.683). The CoP method for second language learning and teaching is currently being interpreted as an encouraging method for its incorporation of sociolinguistic and affective factors such as learner motivation and identity formation.

An overview of second language teaching methods indicates the need for an emphasis on a balanced focus on both grammatical and communicative competence as focus on fluency may lead to "inadequate control of the grammatical system" (Richards and Rodgers, 2014) and vice versa. Brown HD (2007) highlights the importance of grammatical teaching, noting that grammatical competence is associated with "mastering the linguistic code of a language" (p. 219). Hinkel and Fotos (2002) also emphasises that grammatical components in a language cannot be acquired naturalistically, and hence grammar should be taught explicitly in classrooms. Kim N (2002c) further notes that grammar instruction, however, is most important in adult or advanced level learners, and is not highly recommended for beginner-intermediate level learners or for children who rather require communicative skills. Thus the necessity of adopting different methods for different purposes is emphasised, and while it is important to recognise the significance of teaching both the grammatical and conversational aspects of the target language, there needs to be an explicit instruction of grammar in arguably more demanding language with complex grammatical systems such as Korean. More importantly for HLLs, Chevalier (2004) suggests that an activitybased approach may only be proved useful for preliminary stages of heritage language learning, and because HLLs tend to write the way they speak, it is important to implement more demanding written activities to help strengthen their overall grasp of the heritage language.

Although studies on L2 learning have attempted to substantiate teaching trends and theories in applications to classrooms, most of the focus has been on English as Foreign Language (EFL) classrooms, and despite the need for research on heritage language learning, there is a lack of studies in heritage language learning and teaching to establish a general picture of heritage language trends. The next sections will outline general heritage language learning and teaching issues.

2.2.3 Issues in Heritage Language Learning

With recent developments in Heritage Language research, some contentious issues involving how to categorise HLLs have emerged. This has created challenges for defining patterns of their language use. Such concerns are related to identifying the cause of their errors and to develop practical learning and teaching methods based on a strong theoretical framework. Hence, while many issues surrounding heritage language learning remain, this section reviews the two main concerns: issues related to the ambiguity of the term 'heritage language', and the impact of language shift in learning the heritage language.

Heritage Language learning and acquisition has been put forward as a subject of debate recently for its interesting yet controversial position between first and second language acquisition. The cause of such controversy exists in the yet ambiguous definitions of 'Heritage Language' and 'Heritage Language Learners'. Because the term 'Heritage Language' encompasses a very broad and culturally heterogeneous group of learners, the terms 'heritage language' and 'Heritage Language Learner' have been under intensive debate amongst studies (for example, Van Deusen-Scholl, 2003; Chevalier, 2004; Kondo-Brown, 2010; O'grady et al., 2011a; O'grady et al., 2011b; Montrul, 2013). For example, Lee J et al. (2008) explains that the term 'Heritage Language' has been used synonymously with 'community language', 'native language' and 'mother tongue', while 'Heritage Language Learners' have been referred to as 'native speakers', 'quasi-native speakers', 'residual speakers', 'bilingual speakers', and 'home-background speakers'. Kondo-Brown (2003:1) refers to Fishman (2001) and defines heritage languages as "any ancestral language such as indigenous, colonial, and immigrant languages, and therefore, it may or may not be a language regularly used in the home and the community".

The issue of defining HLLs persists in terms of whether HLLs can be accepted as bilingual. Valdés and Figueroa (1994) define two categories of bilinguals: "elective bilinguals" which defines foreign language learners who selectively become bilingual in a formal language context, and "circumstantial bilinguals", which refers to HLLs who naturally acquire a second language with a high proficiency in an informal context because "their first language does not suffice to carry out all of their communication needs". Chevalier (2004) and Montrul (2010a) note that HLLs are bilinguals in a special sense, as they usually possess stronger competence in the language of their host country

rather than that of their heritage language. Fishman (1972) also notes that HLLs' bilingual proficiency is rarely the same across both languages and domains of their language use, and that they typically develop a preference for a certain language according to the domain or context.

Unbalanced exposure to the bilingual environment results in 'language shift' (Kandler et al., 2010) which may be another cause for such 'unbalanced' bilingualism amongst HLLs. Because HLLs have the tendency to restrict themselves to their preferred language, the dominant language gradually replaces their mother tongue. Language shift is defined as "the process whereby members of a community in which more than one language is spoken abandon their original vernacular language in favour of another (Kandler et al., 2010:3855), and extends to morphology, phonology, lexicon and syntax (Chevalier, 2004). The phenomenon of language shift is apparent across many heritage languages (for example, Hatoss, 2004; Kandler et al., 2010; Benmamoun et al., 2013)⁷, and in particular has been increasingly apparent in the Korean heritage community, showing that language minority individuals are shifting to their dominant language of English, while losing their heritage language of Korean with remarkable speed (Cho G et al., 1997; Cho G, 2000; Lee J et al., 2008). While typically the first generation speak the native language, the second generation undergo a language shift caused by dominant contact with English, and rather than attaining balanced bilingualism, they experience language loss in Korean. Cho G et al. (1997) claim that the emergence of heritage language courses is one indication of the increasing speed of language shift within the Korean community.

Language shift is particularly concerning when considering heritage language learning and acquisition. While Lightbown (2000) generalises that a learner cannot achieve native or near native-like proficiency of a second language by learning it one hour a day, many HLLs consider community language schools as their main source of heritage language learning which they only attend once per week and is undoubtedly insufficient. As is the case with Korean, where HLLs are exposed to Korean in casual home environment only a few hours per week (Choe Yoon, 2007) which may explain the inconsistent proficiency across the KHL group of learners. Because HLLs favour their dominant language over their heritage language, and data shows that there exists some stagnation or regression in their heritage language development, it is generally

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⁷ Some languages these studies refer to in relation to language shift include Hungarian, Spanish, Korean, Russian, Swedish, British Celtic languages etc.

understood that the process of heritage language acquisition and learning resembles more of that of the second language (L2) rather than the first language (L1) (Lynch, 2003). Defining heritage language learning as such is still yet ambiguous, and there are still intensive debates on whether heritage language learning can be accepted as a sub-discipline of either L2 or L1 learning (Kondo-Brown, 2005; Montrul, 2010a). One of the main differences between heritage language and L2 acquisition is that HLA initially begins in a natural, organic setting, whereas the latter commences in a formal classroom setting (Kondo-Brown, 2005; Kang H-S and Kim, 2011), hence HLLs, like native speakers, possess some degree of implicit knowledge of their heritage language (Montrul, 2010a). Although this suggests that HLLs have the cognitive and linguistic potential to achieve native speaker competence, there is still yet a dearth of studies on heritage language learning in the classroom. More empirical research is needed to provide important insights into pedagogical strategies of heritage language learning.

2.2.4 Trends in Heritage Language Research

Since the concept and meaning of heritage language is not clearly agreed on, many heritage language studies have attempted to establish a relation between second language and heritage language learning. One of the recurrent issues approached by studies of heritage language learning is regarding the 'advantage' that HLLs have over foreign language learners. Au et al. (2002) and Knightly et al. (2003) claim that overhearing a language during childhood affects the learner's perception of sounds, and presents an experimental study of Spanish and KHL learners' oral production and aural reception. The findings indicated that the HLLs had a significant advantage over FLLs in phonological tasks, but did not differ in morphosyntactic measures. Kagan (2005) also compared Russian HLLs and foreign language learners of Russian at UCLA, and found that the HLLs were capable of rapid fluent speech and had a higher vocabulary capacity than the comparative groups of learners of Russian as a Foreign Language, but failed in high level performance by committing a high number of grammatical, register and orthographic errors. Kagan (2005:218) emphasises the need for a differentiated curriculum for HLLs in comparison to foreign language learners, and calls for a macro approach as HLLs comprehend most grammatical forms rather than introducing one concept at a time as in foreign language teaching.

'Incomplete Acquisition' also appears to be a common cause of error amongst HLLs (Montrul, 2010a). This is defined on the basis that HLA is a partial, incomplete or interrupted process of L1 acquisition that also partially resembles adult L2 learning, due to the increasing exposure to the dominant L2 (Kim SHO, 2012). In the process of Incomplete Acquisition, L1-affected errors such as transfer errors or fossilisation appears to be a frequent phenomenon in HLA as their heritage language is acquired in a bilingual environment (Montrul, 2010a). Montrul (2010a) also notes that limited or restricted contact with the heritage language during the 'critical period' is observed to be one of the main causes of incomplete acquisition, and may be worsened by lack of formal education where vocabulary and complex written structures are often learned.

It is a common finding, however, that HLLs do not differ from foreign language learners at the morphosyntactic level. O'grady et al. (2001) compared the aural comprehension of relative clauses between 16 undergraduate Korean Heritage Language (KHL) learners and 45 undergraduate Korean Foreign Language (KFL) learners, who were given a task of identifying the case of the relativised nouns within relative clauses. The study revealed that there were no significant differences between the performances of the two groups, although these results cannot be generalised due to the skewed selection and lack of detail of participants. Kim EJ (2003a) examined a group of 11 KHL learners with a comparative groups of 10 non-KHL⁸ learners and analysed their case particle errors, delimiter particle errors and morphological errors in their written production. The study reveals that case particle errors were most frequent for both groups, which comprised of more than 60% of the total number of errors. Substitution errors of nominative particles -i/ka with accusative -ul/lul, and locative static ey with locative static eyse were the most frequent. The study discussed that there were not significant differences between the two groups in the use of particles, but non-HLLs appeared to have greater difficulty in distinguishing between discourse related markers. In support of the results, similar results have been presented by other KFL studies (Sohn H-M, 1986; Shin S-C, 2006c) which identified substitutions of the nominative and accusative as one of the dominant errors in written production.

Nevertheless, it should not be underestimated that HLLs in general have been exposed to a different environment to foreign language learners, and hence there is great

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⁸ Kim EJ (2003) only categorises students with parents who are both native Koreans as KHL learners, and all other learners including those with only one native Korean parent, KFL learners and adopted Koreans as non-KHL learners.

variability in their performance. Kang H-S and Kim (2011) note that the acquisition process and linguistic knowledge acquired by HLLs may differ dramatically from that of foreign language learners as heritage language learning occurs in a combination of a naturalistic and instructional settings, while foreign language learners usually learn the language only through classroom instructional settings. Lee H-Y (2012) also suggests that HLLs and non-HLLs should be taught in different classroom environments with differentiated teaching methods since the two groups have distinct characteristics of their own. However, although such studies support the need to differentiate teaching strategies between heritage language and foreign language learners, due to the large variability in their proficiency levels, there has not yet been a concrete solution (Lee J, 2002a).

Another variable for HLLs' proficiency is its correlation to the learner's integration in their heritage community and their awareness of their ethnic identity. Chinen and Tucker (2005) after studying 31 Japanese-American HLLs in secondary years, revealed that there is a significant correlation between the Japanese HLLs' ethnic identity, attitudes towards their Japanese community language schools and their heritage language development. Community language schools in particular are one of the distinctive features of Heritage Language education (Kagan, 2005) which has a significant impact on the learners' motivation and attitudes towards their heritage language. Previous studies in Korean Heritage Language (KHL) learning in America (Cho G et al., 1997; Jo, 2001; Shum, 2001; Lee J, 2002a; Kong, 2011) have also revealed that there may be a correlation between KHL learners' orientation towards their Korean ethnicity and belief in their Korean competence, although these results may not be generalised. For example, Kang H-S and Kim (2011) claim that although speaking skills may correlate to their ethnic identity, the correlation between that of their writing skills is not statistically significant, and that this disparity explains KHL learners' limited literacy skills.

HLLs are clearly difficult to define due to their heterogeneous nature, and although previous studies have attempted to characterise their linguistic and sociolinguistic nature, a concrete solution for the pedagogical issues raised has not been established. It is important that generalisations of heritage language learning are scrutinised by examining more specific groups over a broader domain.

2.3 Error Analysis

Error Analysis (EA) has had a long tradition in applied and educational linguistics, and is associated with the identification, classification and analysis of erroneous linguistic items. In particular, EA withstands as an indispensable research methodology despite the criticisms it faces, as error in language learning and teaching is a point of continuing attention for its influence on second language learners, teachers and curriculum developers (Corder, 1981). This mode is enhanced with recent trends of emphasising the importance of grammar instruction in foreign and second language learning (for example, Kim N, 2002c; Hinkel and Fotos, 2002; Ellis, 2002, 2006; Long, 2014), where EA serves as a significant tool for investigating the main grammatical difficulties that learners experience, and hence for proposing pedagogical implications and strategies accordingly. This section introduces the theoretical and practical aspects of EA, covering some significant merits and shortcomings prevalent under theoretical standpoints.

2.3.1 Definition of Errors

Error Analysis (EA) is the study of 'meaningful errors' which can provide important insights into the language of second language learners. One of the most frequently recurring difficulties in EA, however, is distinguishing whether the erroneous form is actually an 'error' or merely a 'mistake'. 'Mistakes' are inevitable as language learning is essentially a type of human learning which fundamentally involves acquiring information through mistakes, hence should be clearly distinguished from learner 'errors'. Thus this section reviews the various forms of distinctions between 'error' and 'mistake'.

First, Corder (1981) defines the distinction as 'systematic' and 'non-systematic' errors respectively, where 'systematic errors' reveal the learner's underlying competence of the language, and 'non-systematic errors', generally called 'mistakes', are random outcomes of linguistic performance. Performance may be affected by various factors and result in the production of mistakes, often including physical and psychological conditions such as memory lapses, slips of the tongue, tiredness, strong emotions etc. The reference to performance and competence originally derives from Chomsky's notion of the 'knowledge of language' as outlined by Smith N (2005).

Mistakes occur sporadically as a mismatch between competence and performance, and generative linguistics is in most cases about competence although the use of performance as evidence for competence should not be underestimated. Brown HD (2007) also refers a 'mistake' to a 'performance' error which occurs as a result of the failure to exploit a known system correctly, and 'error' as a flaw in the 'competence' of the learner, which noticeably derives from the language system of a native speaker reflecting the lack of knowledge.

Despite efforts to clearly distinguish errors from mistakes, there have been ongoing debates on justifying the error-mistake borderline. In response to this issue, Corder (1981) introduces a few terms to assist in recognising errors. Utterances can be classified as 'acceptable' and 'unacceptable', where 'acceptable utterances' are those produced by native speakers which are recognisable by other native speakers in the appropriate context. Such utterances construct well-formed sentences, which do not possess any ambiguity and are produced in the appropriate context. Hence along with 'acceptability', it is also important to consider 'appropriateness' and 'inappropriateness'. Corder (1981:41) represents this concept diagrammatically:

acceptable		appropriate		free from error
acceptable		inappropriate	=	erroneous
unacceptable	+	appropriate	_	erroneous
unacceptable		inappropriate		erroneous

Sentences are thus erroneous when they are unacceptable or inappropriate, and can only be free of errors when both acceptable and appropriate. James (1994:190) outlines a similar concept of error and mistake with its correlation to Krashen's (1982) learning and acquisition distinction:

- +ACQUIRED +LEARNT: You have Language Awareness... You can perform to par, and can reflect upon your performance.
- -ACQUIRED -LEARNT: The outcome is ERROR. You are in a state of Ignorance (James, 1977).
- +ACQUIRED +LEARNT: The outcome is MISTAKE. You have acquired the rule, or item, but there are factors (disattention, fatigue, semantic primacy) that prevent you from checking your control.
- -ACQUIRED +LEARNT: This is having linguistic consciousness...

Thus, this assumes that only when a linguistic item is both 'learnt' and 'acquired' it will be free of an error, and when it is neither 'acquired' nor 'learnt', the result will be an error. Interestingly here, James (1994) additionally makes a distinction between correctable errors and non-correctable errors, where if a linguistic item is 'learnt' but not 'acquired', then the learner may be able to correct these by referring to what has been explicitly learnt.

Error Analysis is thus concerned with 'meaningful' errors that are systematic in appearance, that represent the learner's incompetence to produce acceptable and appropriate forms. Although James (1998) notes that mistakes are also significant and of interest to the learner and teacher, they are of much less significance in an Error Analysis research and hence require minimal attention, and in this study the focus will be on a systematic 'error' rather than on a simple 'mistake'.

2.3.2 Significance and Limitations of EA

The widespread appeal of EA appears to have stemmed from its alternative approaches to errors from the more restrictive Contrastive Analysis (CA) (Dulay et al., 1982). The CA method focused on a comparison of the learner's native and target languages to derive learner errors in the target language that diverted from the native language. The theoretical justification for CA, known as the Contrastive Analysis Hypothesis (CAH), was deeply influenced by the behaviourist and structuralist views of learning, which claimed that the principal cause for errors is the interference of the first language habits with the learner's attempt to acquire new linguistic behaviours of the second language system (Brown HD, 2007). It would thus be possible to yield a contrastive analysis of the two language systems to predict the areas of difficulties in the target language the learner would encounter. This approach, however, could not provide a comprehensive explanation for errors that did not derive from the target language, and in this respect, EA provides a rich source of explanation for or interpretation of errors that have their cause lie in the learners' interlanguage itself.

Corder (1981:10-11) proposes three reasons for the significance of analysing learners' errors in language acquisition:

First to the teacher, in that they tell him, if he undertakes a systematic analysis, how far onwards the goal the learner has progressed and, consequently, what

remains for him to learn. Second, they provide to the researcher evidence of how language is learned or acquired, what strategies or procedures the learner is employing in his discovery of the language. Thirdly (and in a sense this is their most important aspect) they are indispensable to the learner himself, because we can regard the making of errors as a device the learner uses in order to learn.

Corder's proposition of significance summarises the role of EA from both theoretical and practical perspectives, and is generally accepted as the fundamental roles of EA. Richards (1980) also reviews three main uses of EA: to provide evidence of competence, to identify learning processes and strategies, and to provide input to language pedagogy. First, EA attempts to construct a framework of learner competence in second language learning based on systematic and structured data elicitation. Second, EA has diverged from views on second language learning which focused exclusively on interference such as the Contrastive Analysis, and has provided results to illustrate the learning processes of second language learners. Third, EA contributed in various ways to language teaching, especially in syllabus design and development of remedial measures.

Similarly Dulay et al. (1982) and Haded (1998) also outline the two major functions of learner errors, the first emphasising its capacity to provide data from which inferences about the nature and learning process of the learner can be made, and the second indicating its effectiveness in providing teachers and curriculum developers with the underlying difficulties learners experience in learning the target language. Bartholomae (1980) additionally notes that an error may be interpreted as evidence of the learner's idiosyncratic way of using the language and articulating meaning, as they are seen as necessary stages of individual development, and may provide insights into learning strategies of the target language at a particular point of acquisition. Error analysis can thus be viewed as a systematic approach to constructing strategies in second language learning and teaching by identifying patterns of difficulties experienced by the second language learner.

However, while traditional EA has surfaced as a useful methodological tool in examining learner language, it suffers from five major weaknesses (Dagneaux et al., 1998:164) because EA: (a) is based on heterogeneous learner data; (b) is fuzzy in its categories; (c) cannot cater for phenomena such as avoidance; (d) is restricted to what the learner cannot do; and (e) gives a static picture of L2 learning. Methodologically, it is difficult to define and make clear statements about the nature of errors produced by

learners and under what conditions they have been produced, and further error categories such as 'grammatical errors' or 'lexical errors' are often ill-defined based on a high degree of subjectivity. Scope-wise, firstly it is equally important to examine learners' use of 'correct' forms as it is to examine 'erroneous' forms; and secondly L2 learning processes require a more animate approach which uncovers the actual course of the process.

A number of other studies have also outlined this issue. Brown HD (2007) discusses some shortcomings of EA, mainly in relation to the overemphasis on errors. It is emphasised that the production of errors by a learner only reveals a subset of the overall performance, and that errors themselves sometimes cannot provide sufficient information about learner tendencies such as avoidance, or rather, any positive reinforcements not contained in errors. Dulay et al. (1982:141) also note that three main underlying concerns of EA are: (a) the confusion in the process and product aspects; (b) the lack of precision and specificity in the definition of error categories; and (c) the simplistic categorisations of the causes of learners' errors. Bell (1974, reprinted in James (1998)) provides a more direct criticism of EA, noting the poor statistical inference of EA and the possible subjectivity of the interpretation of errors. It may be useful to note here that incorporating adequate statistical techniques such as a corpusbased analysis may assist in reducing such possible subjectivity in error interpretation and in improving statistical accuracy, thus raising both reliability and validity of the results. Further methodological issues of EA are reviewed in the section below.

2.3.3 Methodological Procedures and Issues of EA

EA is considered as a methodological tool for investigating the process of language acquisition of second language learners. While EA may appear as a quantitative process, it is important to note that a qualitative analysis should not be overlooked. The general process of EA is data collection, identification, description, explanation and evaluation, where explanation of errors is the most important step (Corder, 1981; Ellis, 2008:46).

One of the perceived limitations of EA is in relation to procedural problems. For example, Ellis (2008) claims that data should be obtained from natural, spontaneous data such as everyday production that is not under experimental control, which is

difficult to obtain. Corder (1981) suggests two types of elicitation in response to this issue: clinical and experimental. Clinical elicitation involves collecting raw data by getting the learner to produce data of any sort, while experimental elicitation involves the utilisation of special tools to elicit data that contain the linguistic features the researcher wishes to test. It is generally difficult to obtain raw spontaneous data from learners, and thus methods of clinical elicitation are preferred in most studies.

Ellis (2008:47-50) presents several issues that exist in the process of identifying errors. The first is whether grammaticality or acceptability should be considered, as grammaticality and acceptability may not always comply with each other. The second is in the distinction between 'error' and 'mistake' as discussed in previous sections. The third is whether the error is 'overt' or 'covert'. 'Overt' errors are erroneous in form, and 'covert' errors are superficially well-formed but do not convey the intended meaning. The final is whether awkward but grammatically correct utterances should be considered erroneous. To assist in effectively distinguish erroneous forms from correct forms, Corder (1981:23) proposes an algorithm for error identification in terms of overt and covert as below:

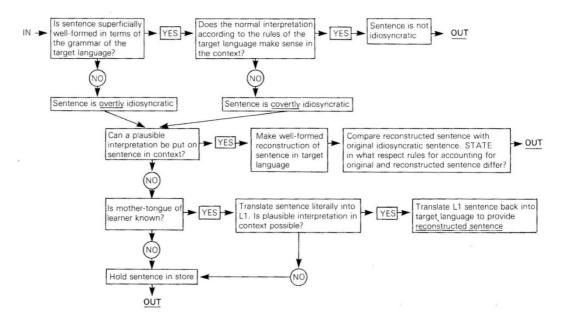


Figure 1 Algorithm for Providing Data for Description of Idiosyncratic Dialects

Thus if a sentence is superficially well-formed in terms of the grammar of the target language, and makes sense in the context when interpreted according to the rules of the target language, then the sentence is not erroneous. In the case of both overt and

covert errors, if a plausible interpretation of the sentence can be made, then a well-formed reconstruction of the sentence should be made in the target language to be compared with the original sentence, and it should be stated how they differ. In the case where a plausible interpretation cannot be made, then it is difficult to provide an analysis of the error.

Error description is also problematic as it may be difficult to determine what the error consists of, and also which method is most suitable for the nature of the errors. Dulay et al. (1982:146-199) proposes four main types of error categorisation taxonomies: (a) linguistic category taxonomy, where errors are categorised into linguistic levels such as phonology, lexis, morphology, syntax and discourse; (b) surface strategy taxonomy, where errors are categorised according to how their surface structures are altered, such as by omission, addition, misordering and misinformation; (c) comparative taxonomy, where the set of errors are structurally compared to another construction such as errors committed by another group; and (d) communicative effect taxonomy, where errors are examined from the perspective of the effect on the listener or reader. Ellis (2008) however criticises its incompetence in providing insights into the learner's process of second language acquisition despite their significance at a pedagogical level, and claims that Corder's (1981) framework for error description, which categorises errors by systematicity⁹, is more convincing in this respect. However error categorisations by systematicity requires the researcher to have access to the learners, and thus Ellis (2008) finds such distinction to be difficult to approach. To compensate for such issues, Corder (1981) suggests a matrix for error categorisation, which categorises errors by phenomenon (omission, addition, substitution and word order) at different levels of language description (orthography, phonology, morphology, syntax, vocabulary etc.), and further by sound and grammatical systems (vowels, consonants, tense, aspect, number, gender or case).

⁹ Corder (1981) defines three error types by systematicity: (a) pre-systematic errors, which occur when the learner is unaware of a certain linguistic form in the target; (b) systematic errors, which occur when the learner is aware of a certain linguistic form but in a mistaken form; and (c) post-systematic errors, which occur when the learner is aware of a certain linguistic form but uses it mistakenly, commonly known as a mistake.

2.3.4 Causes of Errors

Having examined the identification and description processes of errors, it is important to provide an explanation of the possible causes of the errors identified, and this is regarded as the most important stage as it presents an understanding of the process of second language acquisition (Brown HD, 2007; Ellis, 2008). While there are many various causes of errors, Jain (1974:191) explains the fundamental cause of errors as a result of speech reduction that diverges from the target language.

Though both the native child and the second language learner use a developmental process of speech reduction, at one stage in their learning they diverge: the native child 'expands' his 'reduced system' to give it a one to one correspondence with the accepted adult system of his speech community; the second language learner with varying degrees of adjustment continues to operate it as a reduced system. If the reduction diverges widely from the target language and operates at all levels of syntax, his second language performance data are marked with errors of diverse kind...(p.191)

Taylor (1986:159) notes that the cause of error may be psycholinguistic, sociolinguistic, epistemic or lie in discourse structure, but Abbott (1980) claims that the aims of EA is to provide psychological explanations. Hence existing studies have identified four main causes of psycholinguistic errors: interlingual (Selinker, 1992), intralingual and developmental (Richards, 1980) and unique (Dulay and Burt, 1974).

Interlingual errors occur as a result of the use of elements in the learner's first language in the target language, thus often referred to as 'interference errors' or 'transfer errors'. Interlingual errors, however, have been observed to have a low occurrence, and despite Selinker's (1992) support for negative transfer, a number of studies have confuted the idea that interference errors are one of the main causes for error (Richards, 1971; Dulay and Burt, 1974; Ho, 1986). For example, Dulay et al. (1982) revealed that 4-12% of children's grammatical errors and 8-23% of adult errors may be classified as interlingual, and suggested that the majority of errors are caused by developmental factors. Richards (1971) also found that a minority of errors committed by French-English learners were transfer errors.

Intralingual and developmental factors hence prevailed as a central source of error in EA. Intralingual errors reflect the learner's incompetence in learning complex rules of the target language, while developmental errors illustrate the learner's attempt to hypothesise about the target language on the basis of limited experience from

classrooms or textbooks. However, the distinction between intralingual and developmental errors is obscure, and most studies rather merge the two categories and operate with a general distinction between transfer and intralingual or developmental errors (Touchie, 1986; Ghadessy, 1989; Haded, 1998; Yang W, 2010). For example, Richards (1980) classifies intralingual errors as overgeneralisation, simplification, reduction, developmental, communication-based, induced, avoidance and overproduction, while Touchie (1986) classifies intralingual/developmental errors as simplification, overgeneralisation, hypercorrection, faulty teaching, fossilisation, avoidance, inadequate learning and false concepts hypothesised. Lott (1983) also subcategorises transfer errors as overextension of analogy, transfer of structure and interlingual/intralingual errors.

Another possible source of errors is those of unique category, which represent errors that are neither developmental nor interference related. A common unique error is 'induced', which represents errors due to faulty instruction or instructional materials causing negative influence on the learner (Schumann and Stenson, 1974). The study argues that learners may internalise faulty rules from incorrect input, producing instructionally induced errors that may be subdivided into five categories: materials-induced, teacher-talk induced, exercise-based induced, pedagogically prioritised induced and look-up induced.

Although there have been many theories on the cause of error, it is important to note that most EA studies have been restricted to L2 learning, and that these may not necessarily account for errors in heritage language learning. While L2 learners share similar language tendencies due to similar learning contexts in formal settings, their proficiency and literacy varies considerably due to different sociological factors because the majority of HLLs partially acquire their heritage language in a bilingual environment (Montrul, 2010a) but loses or avoids an opportunity to formally learn it. It may thus be possible to identify another source of error in heritage language learning that derive from sociological and cultural contexts which may be differentiated from error sources in L2 learning.

2.3.5 EA Studies in KFL

EA research is generally comprised of studies investigating single linguistic levels such as orthography, phonology, lexical and grammatical errors, and studies that examine the pedagogical values and perspectives of EA¹⁰.

Amongst studies on orthographic errors, there have been a number of studies outlining the importance of understanding phonological structures in the orthographic interpretation in Korean as the language possesses a strong sound-symbol relationship (Kang JY, 2012; Lee SA and Iverson, 2012b). While there have been a considerable number of EA studies on phonological errors by Chinese and Japanese KFL learners (for example, Rhee et al., 2007; Yang S, 2007; Cho N, 2007), there has been increasing momentum in the study of English KFL and KHL learners and the effect of phonological awareness on their orthographic skills. For example, Kim HH (2001a) shows that a critical issue with KHL learners that is not apparent in non-KHL learners is the transfer of oral pronunciation to written orthography. The study found, for example, the substitution error of connective particle ko with kwu being one of the most frequent errors in the way that KHL learners would pronounce in casual speech, and notes that their phonological awareness directly affects their orthographic skills. Pyun and Lee-Smith (2011) also identifies violations of morphophonemic spelling rules which occur due to resyllabification, as one of the most frequently committed errors amongst KHL learners in America. On the other hand, studies such as Sohn H-M (1986), Se (1992) and Shin S-C (2007b) identify consonant tensification as one of the common causes for error amongst KFL learners, explaining the persistence of such errors to be due to the absence of tensed features in English. In general, Sohn H-M (1986) associates four general kinds of phonology-based orthographic errors: (a) graphic mismatch; (b) phonemic transcription; (c) wrong pronunciations of words; and (d) wrong graphic association of sound features.

Lexical EA studies in Korean on the other hand, have not been conducted in a large quantity. Wang H-S (1995) classifies 224 lexical errors from Korean-American intermediate level students into code-switching, confusion of similar meaning,

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¹⁰Spillner (1991) provides a comprehensive bibliography of EA publications when they fit into at least one of the methodological steps error location (identification), error description (analysis and classification of errors), hypothesis on error causes (psychological or psycholinguistic causes), inquiry of communicative effects (interpretation of causes from a communicative perspective) and didactics (evaluation of error and remedial strategies).

overgeneralisation, collocation/idiomaticity, simplification/redundancy and literal translation, from which it is derived that intralingual errors constitute for the most with 51%. One of the main intralingual errors is caused by semantic similarity, as the English lexicon does not often have a one-to-one correspondence with the Korean lexicon. Similarly, Shin S-C (2002) uses classification methods based on Wang H-S (1995) and identifies errors of wrong word choice and semantic similarity to be the most frequent lexical error types, constituting for 40% of the total 305 lexical errors identified from Australian KFL learners. The study also supports Wang H-S's (1995) findings on intralingual errors being the most frequent category. Additionally, Shin S-C (2007a) also presents an error analysis of lexical errors caused by semantic similarity in six categories: synonymic words, words of similar meaning and pronunciation, words of semantic association, words of derivational association, specific words, and words of concord relationship. The study emphasises the need for pedagogical strategies that prevent fossilisation of errors and allow learners to understand contextual usages of words with similar and multiple meanings. On the other hand, Sohn H-M (1986) observes interlingual interference errors to be a frequent category from the lexical errors identified from American learners of Korean, especially in verbs. The study claims this to be due to the fact that English uses many verbs in both transitive and intransitive contexts. Despite the complexity of semantic characteristics of Korean, lexical EA in Korean has not been conducted comprehensively on linguistic and geographic dimensions to be able to derive any pedagogical strategies with a strong theoretical basis. It is thus important that better attention is given to Korean lexical EA so that major learner difficulties are identified and highlighted for more reliable strategies.

With regards to errors of grammar, studies have noted case particles to be a common grammatical error amongst KFL learners due to the complex morpho-syntactic structures of the Korean language. For example, Lee S-H et al. (2009) claims that the absence of some particles such as postpositions are one of the main causes for grammatical errors amongst KFL learners, where the crucial difference between subject and object functions in Korean and English is that they are distinguished by particles in Korean, and by word order in English. Supporting this argument, Kim H-J (2008b), on the study of the interlanguage and grammatical errors, emphasises that studies on postpositional particles in Korean is central to linguistic research on Korean as a Foreign Language. Because of such complexity of the Korean grammar system which is

significantly different from the English grammatical system, many Korean grammatical EA studies have focused on English-speaking KFL learners with a great proportion examining case particle errors. For example Kim Y (2006) analyses particle and verbending errors by English-speaking KFL learners in the intermediate-advanced level, categorising errors by omission, substitution, addition and honorific errors. The study notes the omission of nominative -i/ka and accusative -ul/lul to be the most frequent error types, and anticipates the interference of the learner's L1 to be the main cause of these errors. Additionally, the study presents conjunctive ending and functionconverting ending errors as the most common verb-ending errors, and predicts the main cause of such errors to be in intralingual factors. On the other hand, KFL studies such as Se (1992) and Shin S-C (2006c, 2008) examine KFL learners in the intermediate level to reveal some common difficulties between the nominative -i/ka, accusative -ul/lul and topic-contrast -un/nun. In particular, Shin S-C (2008) finds that more than 50% of grammatical errors identified were case particle errors, and 26% of them were locative errors, the majority of them consisting of locative-static -ey and locative-dynamic -eyse substitution errors. Discrepancies in results amongst studies may be due to the different levels and/or language backgrounds of subjects, but it remains largely uncertain about how similar or different the KHL data will be when compared with the findings from EA studies in KFL.

2.4 Corpus-based Linguistic Theories

In general, studies in EA have overall been criticised on the grounds of its weaknesses in methodological procedures and limitations in scope, as it fails to provide a 'complete' picture of learner language that includes the correct use of language items. In this respect, there has been an upsurge of interest in second language research which has attempted to explore different perspectives of learner error by utilising a corpusbased analysis. The next section reviews some key issues, significance and methodology of corpus analysis, and its significant contributions in enhancing the efficiency of EA.

2.4.1 Issues in Corpus Linguistics

Issues in Corpus Linguistics (CL) have been constantly revisited by linguistic studies, questioning its validity in applications to characterising the nature of language. There have arisen somewhat contentious issues relating to its relevance and role in linguistic description. Such issues have mainly derived from the issue of pedagogical relevance of frequency measures and question of 'realness' and 'authenticity' of data, which will be discussed in this section.

Frequency and authenticity are considered as the two most important advantages of a corpus-based analysis, but these are also the main subjects of criticism from language pedagogy researchers (Mcenery and Xiao, 2010). Recently corpus-based analyses have benefited from the use of computer annotated data which can provide extensive detailed frequency analyses of specified linguistic items to test previous theories of language and improve or build pedagogical materials. There are, however, corpus linguists who disagree with characterising learner language from frequency information. For example, Teubert (2005) notes that human behaviour cannot be characterised from statistical information derived from linguistics, and that such information should be a means of 'interpretation' and not 'verification'. Further, Teubert (2005:5) claims:

Frequency is an important parameter for detecting recurrent patterns defined by the co-occurrence of words. Frequency is thus an essential feature for making general claims about the discourse. However, statistical 'significance' is never enough.

Mcenery and Xiao (2010) however argue that frequency has never been claimed to be the most important, and rather corpus-based studies such as Goethals (2003:424) note that frequency is only "a measure of *probability* of usefulness". Kaltenbock and Mehlmauer-Larcher (2005) also note that frequency cannot automatically provide useful pedagogical information, and that it can only be pedagogically utilised when other factors such as learnability, cognitive salience and generative value are considered. Further, Leech (1997:16, reprinted in McEnery and Xiao (2010)) claims that:

Whatever the imperfections of the simple equation 'most frequent' = 'most important to learn', it is difficult to deny that frequency information becoming available from corpora has an important empirical input to language learning materials.

However when information from a corpus-based analysis is based on frequency data, it is now faced with the issue of 'realness' and 'authenticity' of data in its applications to pedagogical purposes. Kaltenbock and Mehlmauer-Larcher (2005) claims that when corpus data is elicited from the real world, it no longer represents 'real language' but partial extracts of 'real language' which is very limited in the sense that it is missing context. This is important as establishing an understanding between language and its context is crucial in order to develop better descriptions of the use of language and materials based upon them (Adolphs et al., 2011). Hence it is difficult to say whether such de-contextualised corpus data can be called 'authentic'. However as Braun (2007:308) argues, many of the resources developed upon corpus data have been developed "as tools for linguistic research and not with pedagogical goals in mind", and thus for corpus data to have pedagogical relevance, it must incorporate context when being integrated into the curriculum (Braun, 2007; Mcenery and Xiao, 2010). Kaltenbock and Mehlmauer-Larcher (2005:70) also notes that for corpus data to have practical purposes, they "must be re-contextualised in a pedagogical setting to make them relevant for specific classroom purposes and thus make them real life for the learners".

Thus the efficiency of the use of corpora and frequency analyses can be maximised when it is used to analyse language use and is pedagogically utilised in the classroom. Biber et al. (1998) explains that there are two central research goals in a corpus-based approach to language use: (a) assessing the extent to which a pattern is found, and (b) analysing the contextual factors that influence variability. It is further argued that an adequate analysis of language requires a corpus-based approach, as language use can be better studied through the analyses of large corpora.

With the development of computerised corpora, it has become possible to more effectively utilise corpora data in studies of language use based on complex frequency analyses, especially in studies in second language acquisition such as error analysis, where it serves to complement the statistical limitations it holds. Although corpus analysis, like any other methodology, has persisting issues and limitations, Kaltenbock and Mehlmauer-Larcher (2005) notes that it is important to be aware of both the potentials and limitations in order to develop effective pedagogical solutions and provide appropriate guidance in the classroom.

2.4.2 Significance of Corpora and Corpus-based Analyses

The majority of corpus linguistics research is associated with exploring various forms of the use of language and with the development of language teaching resources, and its significance lies within its methodological character which can complement major limitations of error analysis. Such significance of corpus-based analyses is outlined in this section.

In judging the key characteristics of a corpus-based analysis, Biber et al. (1998:4) suggests that it: (a) is empirical, analysing the actual patterns of use in natural texts; (b) utilises a large and principled collection of natural texts, known as a "corpus", as the basis for analysis; (c) makes extensive use of computers for analysis, using both automatic and interactive techniques; and (d) depends on both quantitative and qualitative analytical techniques. What these characteristics suggest is that first, there is no other possible way which carries the capacity for such scope and reliability in analysing text; second, the use of computers accentuates the consistency and reliability of analysing data, and makes it possible to store a very large database of natural language, hence allowing an identification and analysis of complex patterns of language use; and finally, that a corpus-based analysis goes beyond simple counts and includes qualitative and functional interpretations of quantitative patterns. These qualities are highly significant in compensating for the weaknesses of EA, as by being able to include a very large amount of language data, it increases the validity and reliability of data which can be used to make clear statements about the errors produced, not only about the discrete errors itself but also under what conditions they have been committed, which is one of the major weaknesses of EA. Nesselhauf (2004) similarly outlines the potential that learner corpora can have when assisted by computerised data. The study notes machine readability as one of the greatest advantages of learner corpora for its potential to carry out laborious tasks, and more importantly as computerised data can be distributed more widely because then results are more easily comparable and are also more easily verifiable than if each researcher uses a different set of data for their analyses. Furthermore, since learner corpora allow various aspects to be investigated, corpus analysis can lead to comprehensive studies. In this respect, a corpus-based EA can examine a comprehensive picture of learners' language use, which includes both the use of 'correct' forms and 'erroneous' forms, which an EA alone cannot do. When a large

amount of data collected over time is compiled into a corpus, it can reveal significant information about the actual course of the process of language learning or acquisition, unlike an EA approach which only reveals a subset of the overall performance. Biber et al. (1998) also notes that a comprehensive study requires a corpus-based approach with an empirical analysis of large databases, because it cannot rely on intuitive or anecdotal evidence, or small, sporadic samples. For example, a theoretical framework on language use may be tested and described empirically with complementary findings from large corpora, but while intuition and anecdotal evidence can lead to interesting corpus-based investigations, the converse application cannot produce significant results.

A number of studies (for example, Tsui, 2004; Nesselhauf, 2004) have discussed this aspect of significance of corpus-based analyses. The general perspective is that a large corpus can be used to illustrate how language is used, rather than analyse what people know about or perceive language to be in terms of intuition and introspection. A corpus-based analysis provides new insights into how language works, which in turn allows a depiction of the linguistic system from different perspectives (Tsui, 2004). For such reasons, corpus-based studies have often been associated with language teaching, through an analysis of linguistic patterns in learner language. Mauranen (2004) describes one of the strengths of corpora to be its capacity in illustrating what is typical or common in the language, which can replace recommendations of language use that are solely based on tradition or teacher intuition. Based on a corpus-based analysis, it is possible to find frequent linguistic items in language that are not necessarily in agreement with what is taught as functional language use.

In regards to native speaker corpora, Nesselhauf (2004) similarly observes that corpora is useful in that it can reveal much information on the language patterns of native speakers that does not rely on native speaker intuition, and hence is useful for the improvement of language teaching. Emphasising the potential of learner corpora and the importance of investigating the typical difficulties of learners in various L2 contexts, Nesselhauf proposes that the best method to find what such difficulties are is to analyse the corpora of a certain group and compare it to the language produced by native speakers.

Nesselhauf's (2004) proposition appears to be relevant to the objectives of Error Analysis (EA), as it incorporates statistical analyses of a set corpus to identify certain difficulties of language learners. In order to minimise the perceived limitations and

maximise such potentials of EA, a computer-aided corpus-based analysis appears to be a primary method that when used in conjunction with EA, can satisfy gaps as well as accentuate the strengths of EA research. For example, Dagneaux (1998) notes that although EA and computer learner corpus research share a data-oriented approach, the use of the computer makes possible to investigate learner language with large amounts of data which may be impossible to do manually. Once computerised, complex statistical analyses are possible, ranging from simple counts and sorting to more complex automatic linguistic analyses by corpora tagging, which can satisfy the weakness of EA where error categories can often be ill-defined based on a high degree of subjectivity. Computer-aided EA, therefore, serves to identify the particular areas of persistent difficulties in language learning, and could play an important role in the development of pedagogical tools that incorporate unrevealed information.

2.4.3 Methodology of Corpus-based Analysis

Developing a methodology for a corpus-based analysis varies depending on many different factors such as representativeness of corpus, size of the corpus, relationships in data etc. Biber et al. (1998) describes three general relevant steps to be taken in corpus research: (a) Build and design a corpus; (b) identify relevant association patterns; and (c) perform quantitative analyses and functional interpretations.

In designing a corpus, Biber et al. (1998) emphasises the importance of the representation of linguistic variants that the corpus is designed to reflect, rather than a proportional sampling of a corpus which is relatively homogenous. Thus Biber et al. (1998:246) defines a corpus in terms of representativeness as follows:

A corpus is not simply a collection of texts. Rather, a corpus seeks to represent a language or some part of a language. The appropriate design for a corpus therefore depends upon what it is meant to represent. The representativeness of the corpus, in turn, determines the kinds of research questions that can be addressed and the generalizability of the results of the research....Thus, whether you are designing a corpus of your own, choosing a corpus to use in a study, or reading others' corpus-based work, issues of representativeness in corpus design are crucial.

Amongst such representativeness issues, an important area to consider is the diversity of the corpus. This may include register variation, or a variety of subject

matter. Meenery and Wilson (2001) note that it is important to capture a sample which accurately portrays the tendencies of a language variety which will average out to provide a picture of the whole language population which is of interest.

On the quantitative aspect of building a corpus, it is important to consider the number of words in the corpus, number of categories, number of samples in each category and number of words within each sample (Kennedy, 1998). Biber et al. (1998) note that a relatively stable count of samples in a text is approximately 1000 words, while Kennedy (1998) proposes a corpus of 100,000 words to be an adequate size to make generalisations for most descriptive purposes, as the weight of influence of a text in too few samples increases on the results of an analysis.

In order to retrieve mass amounts of data, especially in identifying linguistic patterns such as morphological or syntactic patterns, corpus mark-up and annotation is the next important step in corpus analysis research. In describing the process of corpus mark-up and annotation, Hasko (2011) explains that while corpus mark-up does not encode linguistic information, corpus annotation can be characterised by varying degrees of specificity, which may be used to address different areas of linguistic analysis, such as error tagging and morphological, phonetic, semantic annotations. Thus in particular, EA studies can benefit from error-specified corpus annotation through effective computerised statistical analyses¹¹ of errors and high degree of specificity of error tagging. For example, Díaz-Negrillo and Valera (2010:73-74) tags errors by level of description with EARS (Error-Annotation and Retrieval System) in six levels ranging from language description, type of unit, linguistic category or function affected, nature of error to surface modification¹². Using the error tagged corpus, Díaz-Negrillo and Valera (2010) analyses the corpus data using the chi-squared test of independence and the Kendall rank correlation coefficient. The chi-squared test is used for the six levels into which the errors are classified (PN, SP, WG, PG, CG and LX), and the specific error description within each level which is compatible across levels (IT vs. ER, the

11 Oakes (1998) provides a detailed overview of statistics for corpus linguistics.

¹²(a) Punctuation (PN), Spelling (SP), Word grammar (WG), Phrase grammar (PG), Clause grammar (CG) and Lexis (LX).

⁽b) By type of unit: part of the speech, punctuation marks, grapheme type, etc. The parts of speech considered in the corresponding study are adjective (AD), article (AR), adverb (AV), auxiliary verb (AX), conjunction (CJ), noun (NN), preposition (PE), pronoun (PO) and verb (VR).

⁽c) By linguistic category, function or aspect affected in the error: Upper case, derivation, tense, foreign lexis, etc.

⁽d) By nature of error: execution (internal error, IT) or use of a function or category (external error, ER)

⁽e) By surface modification: misselection (MS), omission (OM), ordering (OR) and overinclusion (OV).

linguistic function or category affected in the error, and the part of speech in which the error type occurs).

As with EA, the most important step in a corpus-based analysis is the functional interpretation and explanation of quantitative data. Relationships of linguistic features identified are continuous constructs, and these hold little significance without functional interpretations which is in fact the most crucial step in corpus analysis. Meenery and Wilson (2001) note that while a quantitative analysis can provide statistically reliable results that can be generalised, it cannot provide the richness and precision that a qualitative analysis can. However on the other hand, while a qualitative analysis enables a detailed description of language use by recognising any linguistically ambiguous items, the findings cannot be tested for the degree of certainty or statistical significance as in a quantitative approach. Thus it is crucial to take a quantitative approach parallel to a qualitative approach to maximise the potential significance of a corpus-based study.

2.4.4 Studies in Corpus-based Analysis

While corpus-based studies have generally been associated with learner pedagogy due to their effectiveness in providing insights into learner language development, they nevertheless suffer from a lack of diversity across a broad spectrum. In describing limitations in previous corpus-based studies in teaching, Conrad SM (1999) mentions the lack of studies based on diverse corpora or complex grammatical features. The study outlines two main constraints that previous studies have placed upon language teachers: first, most studies have been of a small-scale analysis, usually based on a small collection of texts. Analyses of such corpora typically consist of examining sporadic occurrences of a certain word. While this may provide interesting information, it cannot be used to build a comprehensive framework that compares characteristics across language varieties, or identify strong patterns in language use. Second, previous studies have been heavily focused on concordancing and lexical and lexico-grammatical analyses (Butler, 1990; Sinclair, 1991; Mahlberg, 2006; Sharoff, 2010), and have not examined complex grammatical 'features'. Thus insights into complex grammatical and discourse features remain unknown to many teachers.

To assist in rectifying such limitations, error analysis methods have been incorporated with corpora analysis methods in order to satisfy the lack of detail in a

corpus-based analysis and conversely the lack of statistical significance in an error analysis. However, there have been very limited studies on corpus-based error analysis of learner language, and moreover is the case with studies in Heritage Language learning. Some corpus-based EA studies in English include Díaz-Negrillo and Valera (2010), which examines common lexical and grammatical errors in English by L1 Spanish university students from a tagged corpora of written essays and presents a multidimensional statistical analysis of their error types. Popescu (2013) identifies error patterns produced by Romanian EFL students at intermediate level from a 15,555 word corpus of translated journalistic texts, focusing on morphological, syntactic and collocational errors. Dagneaux et al. (1998) uses a 150,000 word corpus of English written by native French learners of intermediate and advanced level to demonstrate the technique of computer-aided error analysis. The study uses a tagged corpus to identify common grammatical and lexical errors extracted from written essays and shows the capacity to generate comprehensive lists of specific error types. Studies such as Phoocharoensil (2014) and Crompton (2005) investigate errors on the relative marker 'where' by Thai and Malay EFL learners respectively. In relation to HLLs, Beaudrie (2012) examines common misspellings of fluent Spanish HLLs from a corpus of 21,322 words. Misspellings are divided into errors by phenomenon (substitutions, omissions, additions, inversions) and by class (noun, adjectives, adverbs etc.), and pedagogical implications are derived accordingly.

Corpus-based research in Korean in particular is a relatively new area of research and has been very limited and sporadic, requiring more in-depth analysis over a broader spectrum. This is especially the case for research in Korean as a Foreign, Second or Heritage Language, given the increase of demand in Korean language education and teaching materials for non-native learners. Most corpus-based studies in Korean, however, have not been focused on learner language. For example, Kang B-M et al. (2003) analyses a variety of Korean text registers from a morphologically tagged corpus of 370,000 words, using three statistical testings: a factor analysis to get text dimensions; a cluster analysis to get text types; and a canonical discrimination analysis to get register discrimination. The study examines transcriptions of real conversations and also transcripts to be spoken and analyses 82 linguistic features including pro forms, tense/aspect, mood, modality, discourse particles and case markers. The analysis reflects Biber's (1998) model of multivariate statistical analysis, and supports its usefulness in

investigating aspects of Korean text registers and styles. Kim M (2009c) examines the grammaticalisation of the Korean aspectual markers: progressive -koiss-, resultative eiss-, and anterior -ess-, using diachronic corpus data starting from the 15th century. The findings suggest that a diachronic intersection between perfective and imperfective domains is empirically and theoretically possible, and that the distinction between perfective and imperfective domains in the diachronic development of aspectual markers is vague. In addition, Kim C-K (2009a) presents a corpus-based cross-cultural text analysis of the second person pronoun tang.shin and first person pronoun plurals wu.li in their use in Korean and English newspaper science publications, revealing the existence of both quantitative and qualitative differences in their use due to syntactic dissimilarities between the two languages. Yoon J et al. (2001) describes the syntactic relations found in Korean nominal compounds using the dependency model of nominal compound analysis presented by Lauer (1995) from a tagged corpus, and presents an algorithm for nominal compound analysis based on syntactic relations and cooccurrence data. Experiments in the study reveal that the model can be effectively used for natural language application systems which do not require deep semantic information.

Despite the needs to satisfy such dearth of research on Korean as a Foreign, Second or Heritage Language based on realistic observations of the process of language learning, corpus-based EA studies in Korean are still very limited in number. Ko (2002) studies a corpus of 35,060 words from 300 KFL learners of various levels, examining postposition errors of omission, substitution, addition, form and paraphrasing. The study, like many other KFL studies (Shin S-C, 2008; Sohn H-M, 1986; Se, 1992), identifies the substitution of locative static ey with locative dynamic eyse, and the omission and addition of nominative -i/ka, locative -ey and accusative -ul/lul as the most frequent errors. Ko (2002) notes, however, that there is yet insufficient data to study learner postposition errors in depth. Kim Y-M (2002d) provides a more comprehensive analysis of a corpus of 127,081 words from 482 KFL learners, identifying 5,465 errors in total. The study analyses errors by learner nationality and level, and further by phenomenon, levels of language description and by systems within these levels as proposed by Corder (1981). Findings of the study indicate that lexical errors of nouns are the most frequent type of error, and also that KFL learners of English background have most difficulty in case particles of nominative -i/ka, accusative -ul/lul, possessive -uy, and locative -

ey/eyse. Main causes are explained to be due to interference of mother tongue, simplification, and overgeneralisation affected by the target language. Kim Y-M (2002b) further emphasises the significance of EA for students, teachers and curriculum developers, and the role of a corpus-based analysis in supporting the findings of EA to provide more reliable information for students and teachers.

Applying findings of a corpus-based analysis to language pedagogy has been gaining increasing interest for its ability to "provide more realistic examples of language usage that reflect the complexities and nuances of natural language" (Mcenery and Xiao, 2010). Such accurate descriptions of language use can assist in more practical syllabus design and material development. The next sections review some theoretical aspects and methodologies of second language learning and teaching, as well as Heritage Language learning issues and trends.

2.5 Summary

An overview of studies as outlined above indicates that although heritage language learning more closely resembles second language learning, it is not entirely accepted as a sub-discipline of L2 learning due to the implicit knowledge of their heritage language prior to undertaking formal education. Furthermore, previous EA studies in Korean indicate that common orthographic errors amongst KHL learners are related to their phonological interpretation in Korean but these types of errors are not apparent in KFL learners. Findings also indicate that KHL learners do not differ from KFL learners at a morphosyntactic level. However, there still remains large uncertainty of how similar or different KHL learner errors are from KFL learner errors in lexical and grammatical aspects. In order to differentiate KHL teaching from KFL teaching, there needs further research on the errors of different linguistic levels to examine the extent of difficulties experienced by KHL learners in comparison to KFL learners. This study attempts to contribute to this proposition by examining a large group of English-speaking KHL learners at two tertiary institutions.

CHAPTER 3 METHODOLOGY

An important aspect of second language acquisition research is in its implications and applications to pedagogy. In order to maximise the study's efficiency in suggesting useful pedagogical implications, this study will take empirical and bottom-up approaches based on theoretical and methodological frameworks as well as input from previous studies. In particular, a corpus-based approach is known to be useful for data analysis, which will in turn provide a valuable information for syllabus design and materials development based on research, and can be used to test previous hypotheses and generalise findings made on the basis of a small number of data (Mcenery and Xiao, 2010). This research will thus utilise a combination of quantitative and qualitative methods to analyse orthographic, lexical and grammatical errors from a large number of written data by English-L1 Korean Heritage Language (KHL) learners.

3.1 Research Questions

The study addresses six research questions as follows:

- (1) What aspects of Korean do KHL learners find most difficult in learning the language, thereby producing high frequency errors?
- (2) If those high frequency error types can be categorised, what are the types and patterns of those main errors?
- (3) How frequently and at what occurrence rate are the errors made? What are their implications on the linguistic competence of KHL learners?
- (4) What similarities or differences are there in the patterns of errors compared with Korean Foreign Language (KFL) learners?
- (5) What are the causes of those main errors?
- (6) What implications are there for effective learning and teaching strategies that can be effective in addressing the main error types?

3.2 Guiding Assumptions

- (1) KHL learners have common key error types and patterns in written Korean when the learners come from the same language background, and these can be explained from linguistic and sociolinguistic perspectives to make suitable pedagogical suggestions where possible.
- (2) KHL and KFL learners who share the same dominant language, i.e. English, may have certain similarities and differences in error patterns, and these may result in pedagogical implications that may be applicable to KHL learners.

3.3 Methodological Approach

This study utilises Error Analysis (EA) research methods based on large corpus of data in order to apply a combination of quantitative and qualitative analyses to collected data. General EA methods are used to identify KHL learners' errors in their written production and to describe the language learning progress and development of the learner, based on the systematic appearance of their errors. By procedure, this study will adopt the general key steps of EA as proposed by Corder (1981) such as identification, description, explanation and evaluation of errors, and categorise by substitution, omission, addition and word order, and further into linguistic categories. In particular, errors identified will be analysed using the following steps: (a) errors are accumulated from the written production of the subjects; (b) errors are tagged according to linguistic categorisations; (c) errors are classified by types and patterns; (d) a statistical analysis is given for classified errors; (e) the possible causes for the particular error types and frequency are explained using appropriate theories in previous studies of error analysis and Korean linguistics; and finally (f) any pedagogical implications that can be derived from the errors are stated. More specifically, the methods to be utilised are as follows:

- (a) Orthographic, lexical and grammatical errors in compositions will be empirically quantified and documented;
- (b) The errors will be classified and categorised on a qualitative basis;
- (c) The types, frequency and occurrence rate of errors will be computerised on a quantitative basis;

(d) Contrastive and descriptive analyses will be utilised to facilitate the interpreting and explanation process.

3.4 Participants

A total of 321 Heritage Language students were recruited from one Australian university (University of New South Wales/UNSW) in Sydney and additionally from stored corpus data at UNSW and one Korean university (Yonsei University) in Seoul. These two groups of participants were recruited on the following basis:

With more than 80% of Korean speakers in Australia residing in Sydney, the number of young adult KHL learners in other parts of Australia is limited. There are almost no tertiary courses for KHL learners at Australian universities. A small number of KHL learners can be found in Korean Advanced or Professional courses, which are regularly offered at UNSW. In order to collect a large amount of data and to ensure the overall effectiveness of the study, participants from a similar learning environment (e.g. English-speaking L2 Korean context) to UNSW need to be additionally recruited. Although students at Yonsei University have different language backgrounds, their learning content is the same at UNSW as Advanced Korean at UNSW uses the same textbook as Yonsei University, and only those KHL learners with English-speaking backgrounds have been included in this study.

Students recruited were of Korean heritage with at least one ethnic Korean parent, speak English as their dominant language, and enrolled or have been previously enrolled in a Korean language course at intermediate level. The study focuses on the intermediate level as these students are most capable of producing sentences based on a somewhat systematically developed knowledge of the language, which would produce a more systematic pattern of errors than those at the beginner or advanced level. It would thus in turn be effective to compare results with previous KFL learner studies at the intermediate level.

Subjects from various English countries have been considered, including Australia, New Zealand, USA, Canada and UK. Survey data has only been collected from Australia, where participants were required to complete a free writing composition task with the option to choose one from the two questions given. Participants to be included in the study were selected based on the compatibility of their written work and

eligibility as a heritage speaker based on their survey answers in the eligibility criteria section. Participant statistics are presented in Table 1 below:

Table 1 Participant Statistics

	UNSW	Yonsei	Total	
Number of participants 146 recruited		175	321	
Included ¹³	145	143	288	

A broad spectrum was considered when recruiting intermediate level participants, ranging from lower-intermediate to upper-intermediate. This defines approximately 200 to 400 hours or equivalent of formal Korean language studies completed in a formal tertiary setting. The reason for including such a broad range is because of the discrepancies in course hours and content between each institution, where a careful comparison was made between the courses based on the number of hours completed. As such, participants were recruited such that they had either completed four to six semesters at UNSW-equivalent to upper Intermediate to Advanced.

Because the Yonsei KLI course levels are equivalent to the Korean Proficiency test levels which define Levels 2 and 3 as intermediate, this study has decided to include students with prior experience or knowledge equivalent to 200-400 hours of Korean language coursework. From UNSW, this equates to courses Intermediate to Advanced Korean¹⁴ (four to six semesters) which includes students who have studied between 216-312 hours. In addition, UNSW Korean Advanced courses use the same textbooks as Yonsei KLI¹⁵, which makes the participant data more feasible to work with and produces more systematic results in analysis.

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¹³ Only compositions from participants who meet the eligibility criteria stated above have been included in the analysis of data for this study. Hence, the number of participants recruited was 321 but the number of included participants was 288. 33 participants have been excluded for analysis.

¹⁴ARTS2660 Intermediate Korean A, ARTS2661 Intermediate Korean B, ARTS3660 Advanced Korean A, and ARTS3661 Advanced Korean B

¹⁵ Yonsei Korean 2-4, Yonsei University Press

3.5 Data Collection

Data for this study has been collected via means of survey and stored data (produced in 2010 to 2015) from one Australian university (UNSW) where a considerable number of English-Ll Heritage Language students are studying Korean, and from one Korean university (Yonsei University) which offers one of the largest Korean language programs in Korea. A total of 288 de-identified compositions have been used for this study, under the conditions that they satisfy participant eligibility and that the nature of data they have produced is systematic and reliable.

Ethics approval for data collection was obtained from the UNSW Human Research Ethics Advisory (HREA) Panel (Approval number 14 153) before travelling to Seoul, Korea for data collection. Letters of support from the participating universities were obtained beforehand. Meetings with the Head and Deputy Head of the Institute were arranged to discuss the most efficient ways of collecting data. Information for data was retrieved and collected over three months, and surveys were conducted in Australia over two semesters in order to include students from Semester 2. Additionally, stored written compositions from past test papers (2010-2015) were also retrieved.

3.5.1 Test papers

Composition data extracted from test papers of 2010-2015 were collected from Yonsei University and UNSW. Test papers from Yonsei University were only retrieved from regular mid- and end of session test papers which run seasonally for ten weeks, as agreed by management. The test papers were collected anonymously by filtering the enrolment lists by first language, nationality, parents' ethnicity, and additionally by Korean surnames. These were then transcribed into text (.txt) file, so that they are compatible with tagging software. In addition, composition sections from test papers that were stored as text (.txt) files on a database were also retrieved, which were deidentified by only saving the written composition sections.

Test papers from UNSW were also collected from the Advanced Korean A course. These papers are regular semester formal mid- and final examination papers with a free writing composition section of approximately 150 words. Examples of topics for the free writing composition section include 'time management', 'weather and personality', 'self-introduction', 'advancement of technology', 'leisure activities of

modern day people', 'superstitions', 'newspapers', 'special public holidays' and 'living healthy'. Compositions from 10 semesters during 2010-2015 were collected. HLLs were extracted by their last names as the course cannot be taken by native Korean speakers. The compositions were photocopied without any personal information, and were again transcribed into text (.txt) files with the support of a research assistant.

3.5.2 Survey

Surveys were used to gather additional data from KHL learners in Australia in order to supplement data from test papers and fulfil the proposed size of the corpus. In Section 1, participants were required to complete a simple background check to confirm their ethnicity, dominant language spoken and main country of residency, and additionally on number of hours previously enrolled in a Korean language course. This section was used to filter the participants so that they would maintain consistency with the test papers. Section 2 included two questions for a free writing composition task, from which participants were given an option to choose one of the two as their preferred question to answer. The questions for the free writing composition task have been constructed based on topics in the intermediate level textbooks used at the source institutions (Levels 2 and 3) to maintain consistency with the data collected from the stored corpus data. Participants were required to write approximately 200-300 words in Korean on their chosen topic¹⁶.

3.6 Data Analysis

Biber et al. (1998) notes, the three general relevant steps to be taken in a corpus-based analysis are: (a) Build and design a corpus; (b) identify relevant association patterns; and (c) perform quantitative analyses and functional interpretations. After obtaining the raw corpus from participants, errors were identified and confirmed by two other specialists in the field to reduce subjectivity and maintain reliability. The written compositions were then computerised manually so that they can be tagged for errors. Tagging corpus may be done in several ways, including automatic annotation using

¹⁶Topics include internet, my life, personality, everyday issues, Korean culture, time and change, newspaper, luck and myths, taboos, saving money, credit cards, anniversaries, habits and workaholics, health, dreams, wishes, mistakes, interests, hometown.

tagging programs, or by manual encoding. However, because taggers often rely on probabilistic information for ambiguous linguistic elements and finer linguistic categories require greater demand for subtle judgment, machine tagging is not always reliable and should be used in conjunction with a human encoder (Biber et al., 1998; Kennedy, 1998; Hasko, 2011). While accuracy and consistency are crucial factors for ensuring the reliability of results from a tagged corpus, Biber et al. (1998) notes that no automatic tagger is completely accurate, and that it is essential to check and perhaps use an interactive computer program to increase reliability. In this study, several programs such as the 'Korean morphological tagger' have been used to tag the corpus, and manual error tagging was performed and confirmed by two other linguists. Tagged errors were then categorised according to Corder's (1981) matrix for error categorisation. Several retrieval software programs such as 'han.ma.lwu' and 'kul.cap.i

3.6.1 Error Identification and Categorisation

The corpus collected consisted of a total of 41,486 words of Korean. This study bases its framework for error categorisation on the matrix proposed by Corder (1981), by first categorising by levels of phenomenon and language description, then by systems within these levels. Errors were primarily tagged by ERR_ORT, ERR_LEX and ERR_GRA for orthographic, lexical and grammatical errors respectively in conjunction with ø for omission and * for addition, which were confirmed by two other linguists prior to reducing to more specific levels according to a system of error tags using Sejong Corpus Tags¹⁷.

3.6.2 Tools for Data Analysis

A Korean morphological tagger¹⁸ was used as a primary means of tagging the corpus. The tagger is based on the Sejong corpus¹⁹ and its tags, and is useful for

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¹⁷ See Appendix

¹⁸ 'ci.nung.hyeng.hyeng.tay.so.pwun.sek.ki[Korean Morphological Tagger]'available for download on the Sejong corpus website.

¹⁹ The Sejong corpus was developed during the 21st century Sejong project initiated by the Korean Government, consisting of 500 million words of a collection of corpora of modern Korean, international Korean, old Korean and oral folklore literature.

identifying neologisms, foreign words, and for a simple analysis of morphological and syntactic structures. The tagger, however, is unstable in terms of reading specific contexts, and has difficulty in differentiating identical structures that account for different linguistic functions or categories, and hence has been supported by manual human encoding.

Tagged files were saved as text files to be imported into Microsoft Excel, where errors were manually tagged. The error-tagged file was checked a second time by another linguist, and any discrepancies were conclusively checked and confirmed by a professional linguist. This confirmation process was necessary for maximal reduction of subjectivity in error identification. A concordance program 'Concordance' and 'han.ma.lwu' were used to derive frequency counts and concordances of orthographic, lexical and grammatical errors which were used to derive types and patterns within those error categories. Additionally, a retrieval software 'kul.cap.i II' was used to calculate the number of occurrences of each error type to calculate error occurrence rate. Error rates were calculated using the formula below:

$$E = \frac{\text{Number of errors of } n}{\text{(Number of errors of } n + \text{correct usages of } n)}$$

where E is the error occurrence rate and n is the error type.

CHAPTER 4 ORTHOGRAPHIC ERRORS

4.1 Definition of Orthographic Errors

Unlike a typical analysis of orthographic errors, this study does not include spacing or other punctuation errors such as uses of commas and hyphenations, but focuses solely on alphabetical misspellings which are unrelated to semantic or morphological knowledge. Thus only the affected individual characters representing a single phoneme have been considered as an orthographic error, to distinguish them from lexical errors which modify the meaning of words, syntactical errors which affect the functional items such as case particles, tense etc., and morphological errors which reflect the KHL learners' lack of knowledge in word forms. In this chapter, particular focus is placed on phonemic and morphophonemic orthography. Errors identified have been classified in terms of type, frequency and occurrence rates, which have been used to present statistical results and possible explanations for the causes of the significant orthographic errors with high frequency. Discussion of errors involves an investigation into some implications for possible pedagogical strategies that may assist in the improvement of such high frequency orthographic errors.

4.2 Results

A total of 2,815 orthographic error types were identified from 246,445 alphabetical letters. Errors have been categorised by alphabetical letters (e.g. ey for ay) where initial and coda consonants have been categorised separately (e.g. m for p is different to m. for p.), and errors affected by the next consonant have been categorised separately to those that are not (e.g. $n.\emptyset$ for \emptyset .n is different to n. for \emptyset . or \emptyset for n). Initial consonant 'o' has been treated and described as \emptyset , and as ng when in the coda. 431 different error types have been identified, including 309 consonant errors (207 substitutions, 53 omissions and 49 additions) and 121 vowel errors (120 substitutions, 1 omission). 67 error types that have occurred more than 10 times are presented below.

Table 2 High frequency errors

Type	Frequency		Type	Frequency	
ay for ey	194		e for a	17	

ey for ay	177
Misc.	69
ye for e	68
oy for way	63
ø for h	63
ø.l for l.ø	55
t for tt	48
o for e	47
ss for s	44
wu for u	43
s for ss	42
ey for yey	42
l.l for ø.l	39
e for o	35
ø. for <i>l</i> .	34
\emptyset . for n .	34
wu for o	33
k for kk	32
e for ye	29
<i>i</i> for <i>a</i>	29
o for wu	28
ø.l for l.l	26
kk for k	26
<i>n</i> .ø for ø. <i>n</i>	24
l.ø for ø.l	24
n. for ng.	23
nh. for n .	21
cc for c	20
a for wa	19
yey for ey	19
p. for ph.	17
way for oy	17
ø. for s.	17

$l.\phi$ for $l.l$	16
ay for oy	16
<i>ng</i> . for <i>n</i> .	16
h for ϕ	16
c for cc	15
<i>n</i> . For <i>nh</i> .	15
<i>i</i> for <i>ey</i>	15
<i>n</i> . for ø.	15
i for wu	15
ay for a	15
ye for yo	14
tt for t	14
ay for yey	13
<i>i</i> for <i>uy</i>	13
m. for p .	13
<i>l.l</i> for <i>l.</i> ø	13
s. for ss.	13
u for wu	13
e for u	13
ø.s for s.s	12
ay for way	12
<i>l.l</i> for <i>n.l</i>	12
\emptyset . for h .	12
c for ch	12
<i>i</i> for <i>u</i>	12
<i>u</i> for <i>i</i>	12
yo for ywu	11
ø. for ss.	11
<i>nh</i> .ø for ø. <i>n</i>	11
ø. for k.	11
ch for c	11
a for e	11
1	

In this study, a dual approach using error frequency and error occurrence rate is used in the discussion. Error frequency is important as it shows the potential high difficulty items, and error occurrence rate is required to see the approximate probability of the learner committing that particular error. It is however, important to note that error occurrence rate is only an approximate probability, and the accuracy may decrease for items with a lower occurrence, where the error rate may probabilistically be relatively lower than its actual level of difficulty which is where frequency can compensate for. The error rates for the high frequency items listed above in Table 2 are presented below in order of highest to lowest error rates.

Table 3 Occurrence rates for high frequency errors

Type	Occurrence	Rate	Type	Occurrence	Rate
oy for way	71	0.4701	o for e	11,092	0.0042
ø.s for s.s	14	0.4615	s. for ss.	3,073	0.0042
ay for way	71	0.1446	l.ø for ø.l	5,799	0.0041
s for ss	260	0.1391	n. for ng.	6,020	0.0038
c for cc	124	0.1079	ø. for ss.	3,035	0.0036
<i>l.l</i> for <i>n.l</i>	138	0.0800	o for wu	7,843	0.0036
ey for yey	618	0.0636	yey for ey	5,629	0.0034
<i>p</i> . for <i>ph</i> .	318	0.0507	e for o	11,073	0.0032
t for tt	943	0.0484	ø. for <i>l</i> .	10,830	0.0031
ø.l for l.l	516	0.0480	wu for o	11,073	0.0030
k for kk	736	0.0417	<i>nh</i> .ø for ø. <i>n</i>	4,039	0.0027
ay for ey	5,629	0.0333	i for ey	5,629	0.0027
ey for ay	5,344	0.0321	wu for u	16,519	0.0026
<i>l.ø</i> for <i>l.l</i>	516	0.0301	<i>n</i> . for ø.	6,069	0.0025
ay for yey	618	0.0206	cc for c	8,949	0.0022
ø.l for l.ø	2,658	0.0203	\emptyset . for n .	16,877	0.0020
ø. for <i>h</i> .	618	0.0190	ø. for k.	5,663	0.0019
way for oy	881	0.0189	i for wu	7,843	0.0019
yo for ywu	605	0.0179	u for wu	7,843	0.0017
ay for oy	881	0.0178	kk for k	15,946	0.0016
<i>n</i> . for <i>nh</i> .	940	0.0157	tt for t	11,140	0.0013
ø. for s.	1,255	0.0134	<i>nh</i> . for <i>n</i> .	16,877	0.0012
<i>i</i> for <i>uy</i>	1,117	0.0115	ch for c	8,957	0.0012
a for wa	2,372	0.0079	i for a	27,282	0.0011
c for ch	1,782	0.0067	a for e	11,092	0.0010
<i>l.l</i> for ø. <i>l</i>	5,799	0.0067	<i>ng</i> . for <i>n</i> .	16,877	0.0009
e for ye	4,313	0.0067	e for u	16,519	0.0008
ø for h	9,838	0.0064	i for u	16,519	0.0007
ye for yo	2,234	0.0062	u for i	18,281	0.0007
ye for e	11,092	0.0061	e for a	27,282	0.0006
n.ø for ø.n	4,039	0.0059	h for ø	28,239	0.0006
<i>m</i> . for <i>p</i> .	2,299	0.0056	ay for a	27,282	0.0005
$l.l$ for $l.\phi$	2,658	0.0049	Misc	246,445	0.0003
ss for s	10,339	0.0042			

4.2.1 Frequent Error Types

The highest error occurrence in this study was the substitution of mid-front vowel (unrounded) *oy* with diphthong *way* at 0.4701, occurring only 134 times but with

63 of them erroneous. Substitution of *way* for *oy* was less meaningful at a rate of 0.0189. See for example in (1):

(1) mid-front vowel (unrounded) oy and diphthong way:

* $toy.ci(\sqrt{tway.ci})$ 'pig'

oy for way:

*toy.yo($\sqrt{tway}.yo$) 'to become'

*toyss.e.yo($\sqrt{tway}ss.e.yo$) 'has become'

*poyss.sup.ni.ta($\sqrt{pway}ss.sup.ni.ta$) 'have seen/met'

way for oy:

*tway.ta($\sqrt{toy}.ta$) 'to become'

*twayn.ta($\sqrt{toy}n.ta$) 'can do (something)'

*twayl($\sqrt{toy}l$) 'to become (in the future)'

*twayp.ni.ta($\sqrt{toy}p.ni.ta$) 'is possible'

* $chway.ko(\sqrt{choy.ko})$ 'the best'

*kwayng.cang.hi(√koyng.cang.hi) 'very/extremely'

The second highest error occurrence and most frequent type of orthographic error identified in this study was the substitution of mid- and low-front unrounded vowels *ey* and *ay* respectively by 13.2%. *ay* for *ey* errors were slightly higher than *ey* for *ay* errors with an error rate of 0.0333 and 0.0321 respectively.

(2) Mid- and low-front unrounded vowels ay and ey:

ey for ay: *ttey(\sqrt{ttay}) 'the time'
*hey.yo($\sqrt{hay.yo}$) 'to do'
*wi.hey.se($\sqrt{wi.hay.se}$) 'for (something)'
*ku.ley.se($\sqrt{ku.lay.se}$) 'therefore/consequently'
*con.cey($\sqrt{con.cay}$) 'existence (of something)'
*cey.nung($\sqrt{cay.nung}$) 'ability/talent'
*cey.hwal.yong($\sqrt{cay.hwal.yong}$) 'recyclable'
*su.thay.ik($\sqrt{su.they.ik}$) 'steak'

ay for ey: *cay.il($\sqrt{cey.il}$) 'the first/most'
*hang.sayng.cay($\sqrt{hang.sayng.cey}$) 'antibiotics'
*i.cay($\sqrt{i.cey}$) 'now'
*swuk.cay($\sqrt{swuk.cey}$) 'homework'
*kay.im($\sqrt{key.im}$) 'game'
*kay.u.lun($\sqrt{key.u.lun}$) 'lazy'
*tay.lye.ta($\sqrt{tey.lye.ta}$) 'to take (someone)'
*tu.say.yo($\sqrt{tu.sey.yo}$) 'eat (hon)'
*ca.say.hi($\sqrt{ca.sey.hi}$) 'in detail'

The most frequent group of consonant errors were error types related to the lateral l with an overall error rate of 0.0101. Seven types of lateral l-related error types were identified resulting from omission, addition and substitution due to consonant assimilation (liquidisation) which had the highest error rate from this group at 0.0800.

(3) Lateral *l*-related:

 $\emptyset.l$ for $l.\emptyset$: *to.la.ka.ta($\sqrt{tol.a.ka.ta}$) 'to go back' *sa.la.se($\sqrt{sal.a.se}$) 'to live' *ka.la.se($\sqrt{kal.a.se}$) 'to grind' *tte.le.cye($\sqrt{ttel.e.cye}$) 'fall/drop' *sa.lass.ta($\sqrt{sal.ass.ta}$) 'to live (future)' *cwu.lin.ta($\sqrt{cwul.lin.ta}$) 'to lessen'

 $l.\phi$ for $\phi.l$: *al.ey($\sqrt{a.lay}$) 'below'

*mil.ey($\sqrt{mi.lay}$) 'future'

*hal.e($\sqrt{ha.le}$) 'to do/in order to do'

*nal.a($\sqrt{na.la}$) 'country'

*ttal.a($\sqrt{tta.la}$) 'to follow/go by (something)'

*pwu.dul.ep.ta($\sqrt{pwu.du.lep.ta}$) 'soft/smooth'

*cal.ass.ta($\sqrt{ca.lass.ta}$) 'to grow/be raised'

 $\phi.l$ for l.l: *khu.lay.sik($\sqrt{khul.lay.sik}$) 'classic' *man.du.lye.ko($\sqrt{man.dul.lye.ko}$) 'to make' *they.ley.pi.cen($\sqrt{theyl.ley.pi.cen}$) 'television' *ta.la($\sqrt{tal.la}$) 'is different' *ppa.li($\sqrt{ppal.li}$) 'quickly'

l.l for ϕ .l: *el.lyess.ul ttay(\sqrt{e} .lyess.ul ttay) 'when (someone) was young' *key.wul.lu.ta(\sqrt{key} .u.lu.ta) 'lazy' *-ul.lo($\sqrt{-u}$.lo) 'with/by means of' *ki.tal.li.ko(\sqrt{ki} .ta.li.ko) 'to wait' *tal.lu.ni.kka(\sqrt{ta} .lu.ni.kka) '(because something) is different' *hal.lye.ko(\sqrt{ha} .lye.ko) '(planning to) do (something)' *pwul.lu.ko(pwu.lu.ko) 'call (someone) /sing'

l.l for l. ϕ : *mal.la.yo($\sqrt{mal.a.yo}$) 'roll (something)' *nol.la.se($\sqrt{nol.a.se}$) 'to play' *dol.la.ka.ta($\sqrt{dol.a.ka.ta}$) 'to go back' *sal.la.yo($\sqrt{sal.a.yo}$) 'live' *il.le.na($\sqrt{il.e.na}$) 'to get/stand up'

**e.wul.lye.ci.ta*(√*e.wu.le.ci.ta*) 'mix/mingle with'

 $l.\phi$ for l.l: *cwul.ey.yo($\sqrt{cwul.lay.yo}$) 'want to give'

*nol.ass.ta($\sqrt{nol.lass.ta}$) 'surprised'

* $mol.a(\sqrt{mol.la})$ 'don't know'

*mal.ass.ta(√mal.lass.ta) 'dry/skinny'

* $tal.i(\sqrt{tal.li})$ 'different to/unlike (something)'

l.l for *n.l*: *wol.ey($\sqrt{won.lay}$) 'originally'

*kul.ley(\sqrt{kun.lay}) 'recent days' *hwul.lyen(\sqrt{hwun.lyen}) 'training'

Consonant error categories with mid-frequency include the substitution of ϕ and h, errors related to h-omission or addition, and coda-related errors. ϕ for h errors were significantly higher than h for ϕ errors with a frequency of more than six times higher than that of the latter, where h for ϕ errors only had an error rate of 0.0006 hence is not significant. The h-omission had a lower frequency but higher error rate than h-addition errors, and p. for ph. substitutions were most frequent for coda-related errors which also had one of the highest error rates at 0.0507.

(4) Mismatch between h and ϕ :

h for ϕ : *thuk.hi.han($\sqrt{thuk.i.han}$) 'unusual/unique'

* $se.hyang(\sqrt{se.yang})$ 'western'

*phyen.han.ha.ta(\phyen.an.ha.ta) 'comfortable/relaxing'

*tang.hyen($\sqrt{tang.yen}$) 'with no doubt/reasonable' *chwul.hyen($\sqrt{chwul.yen}$) 'make an appearance' *kyeng.hwu($\sqrt{kyeng.wu}$) 'circumstance/case of'

 ϕ for h: *tay.ey.se($\sqrt{tay.hay.se}$) 'about (something)'

*thong.ey($\sqrt{thong.hay}$) 'through'

* $in.ey(\sqrt{in.hay})$ 'due to (something) '

* $pi.yey(\sqrt{pi.hay})$ 'damage/harm'

* $thuk.i(\sqrt{thuk.hi})$ 'especially'

* $yel.sim.i(\sqrt{yel.sim.hi})$ 'diligently'

* $cal.a.ta(\sqrt{cal.ha.ta})$ 'to do well'

**chin.an*($\sqrt{chin.han}$) 'close with (someone)'

* $i.yay(\sqrt{i.hay})$ 'understand'

(5) *h*-omission or addition:

ø. for h.: *ne.u.sey.yo($\sqrt{neh.u.sey.yo}$) 'put something into/insert'

* $ku.le.key(\sqrt{ku.leh.key})$ 'so/in that way'

* $co.un(\sqrt{coh.un})$ 'good/fine' * $e.tte.key(\sqrt{e.tteh.key})$ 'how/what'

* $no.chi.ci(\sqrt{noh.chi.ci})$ 'miss (something)'

n. for *nh*.: *man.a.yo($\sqrt{manh.a.yo}$) 'a lot/plenty of'

* $an.sup.ni.ta(\sqrt{anh.sup.ni.ta})$ 'be not/do not'

 $nh.\phi$ for $\phi.n$: * $anh.i(\sqrt{a.ni})$ 'no'

* $el.manh.a(\sqrt{el.ma.na})$ 'how/how much'

nh. for *n*.: *manh.tun($\sqrt{man.tun}$) 'to make'

*- $manh.khum(\sqrt{-man.khum})$ 'amount of' * $anh.nun.ta.ko(\sqrt{an.nun.ta.ko})$ 'to hug/hold'

*-hanh.tey($\sqrt{-han.tey}$) 'to (whom)'

(6) Coda-related:

ph. for p.: *yen.suph($\sqrt{yen.sup}$) 'practice'

* $mo.suph(\sqrt{mo.sup})$ 'figure/form'

*suph.ha.ta(√sup.ha.ta) 'damp/humid'

*iss.uph.ni.ta(\sqrt{iss.sup.ni.ta}) 'be/is located in'

s. for ss.: * $ca.las.ta(\sqrt{ca.lass.ta})$ 'to grow/be raised'

*e.lyes.ul ttay($\sqrt{e.lyess.ul}$ ttay) 'when (someone) was young'

*hays.ta($\sqrt{hayss.ta}$) 'did (something)' * $ci.nas.ta(\sqrt{ci.nass.ta})$ 'pass/go by'

*pwas.e.yo($\sqrt{pwass.e.yo}$) 'saw (something)'

* $sses.ten(\sqrt{ssess.ten})$ 'written/used'

Another significant group of errors of consonants were those in tensification, which is also a frequent error category in Korean Foreign Language (KFL) learners. This group, however, only had an overall error occurrence rate of 0.0049, where ss for s substitutions had the highest rate with 0.1391, closely followed by c for cc substitutions at 0.1079. In terms of frequency, t for tt substitutions were most frequent, followed closely by ss for s substitutions and then s for ss substitutions. The least frequent and lowest error rate was in tt for t substitutions.

(7) Consonant tensification:

s for ss: *nal.si($\sqrt{nal.ssi}$) 'weather'

* $pel.se(\sqrt{pel.sse})$ 'already'

*se.ya ($\sqrt{sse.ya}$) '(should) write/use)' *cwu.kum.sik($\sqrt{co.kum.ssik}$) 'gradually' *sa.se($\sqrt{ssa.se}$) '(because it is) cheap'

* $sa.wess.ta(\sqrt{ssa.wess.ta})$ '(someone) argued/fought)'

ss for s: *hayss.ssup.ni.ta($\sqrt{hayss.sup.ni.ta}$) 'did (something)'

*ssu.khi(√su.khi) 'ski'

*hayl.ssu.cang($\sqrt{heyl.su.cang}$) 'gym'

* $thayk.ssi(\sqrt{thayk.si})$ 'taxi'

* $yel.ssim.hi(\sqrt{yel.sim.hi})$ 'diligently'

c for *cc*: **ches.pen.cay*($\sqrt{ches.pen.ccay}$) 'the first'

* $kkam.cak(\sqrt{kkam.ccak})$ '(the act of being) startled/surprised'

* $il.cik(\forall il.ccik)$ 'early'

* $e.cel.ttay(\sqrt{e.ccel.ttay})$ 'sometimes'

* $kal.pi.cim(\sqrt{kal.pi.ccim})$ 'braised short ribs'

cc for *c*: $*ccay.cu(\sqrt{cay.cu})$ 'jazz'

* $ccom(\sqrt{com})$ 'a bit'

* $a.ccik(\sqrt{a.cik})$ 'still/so far'

* $cca.ccung(\sqrt{cca.cung})$ 'irritation/annoyance'

* $ccip.e.se(\forall cip.e.se)$ 'pick up'

k for *kk*: *ham.key($\sqrt{ham.kkey}$) 'together'

* $kkuth.ka.ci(\sqrt{kkuth.kka.ci})$ 'to the end'

*ka.ka.i(\langle ka.kka.i) 'close by'

*- $ka.ci(\sqrt{-kka.ci})$ 'until' * $cang.nang.kkam(\sqrt{cang.nan.kam})$ 'toy'

* $pa.kwu.le(\sqrt{pa.kkwu.le})$ 'to change/alter'

*sayk.kal(√sayk.kkal) 'colour'

kk for *k*: **kkes*(\sqrt{kes}) 'thing'

*- $kke.yey.yo(\sqrt{-ke.yey.yo})$ 'going to...'

* $pol.kkem.ni.ta(\sqrt{pol.kep.ni.ta})$ 'going to see/meet'

* $kkay.lang(\sqrt{kyey.lan})$ 'egg'

t for tt: $*tay(\sqrt{ttay})$ 'the time/moment'

* $tey.mwun.ey(\sqrt{ttay.mwun.ey})$ 'because of'

* $to.han(\forall tto.han)$ 'also'

* $e.tek.key(\sqrt{e.tteh.key})$ 'how/what'

**twi.myun*(√*ttwi.myun*) 'if (someone) runs/jumps)'

*ta.lu.myun(\sqrt{tta.lu.myun}) 'if (someone) follows/goes after'

tt for t: *a.mwu.ttey.na($\sqrt{a.mwu.tey.na}$) 'anywhere' *ssul.ttay.eps.ta($\sqrt{ssel.tey.eps.ta}$) 'useless' *cel.ttay($\sqrt{cel.tay}$) 'definitely/absolutely' *pal.ttal($\sqrt{pal.tal}$) 'develop' *-ess.tten($\sqrt{-ess.ten}$) '(something) that was'

Vowel error categories in the mid-frequency range included the substitution of low-back vowel e and diphthong ye, and substitution of mid-back vowel o and high-back vowel wu. These errors, however, had a relatively low error occurrence rate with e for ye at 0.0067, ye for e at 0.0061, o for wu at 0.0036 and wu for o at 0.0030. Another more significant vowel error type with mid-frequency was the substitution of mid-front vowel ey for dipthong yey with an error rate of 0.0636.

(8) low-back vowel *e* and diphthong *ye*:

e for ye: *ku.le.men($\sqrt{ku.le.myen}$) 'and then/if you do (so)' *-cess.ta($\sqrt{cyess.ta}$) 'has become...' *pe.less.ta($\sqrt{pe.lyess.ta}$) 'throw out' *en.ka($\sqrt{yen.ka}$) 'love song/poem' *ic.e.pel.ess.ta($\sqrt{ic.e.pe.lyess.ta}$) 'forgot (something)' *chwul.en($\sqrt{chwul.yen}$) 'make an appearance' *ppa.ce($\sqrt{ppa.cye}$) 'fall out/into' *e.kin.ta($\sqrt{ye.kin.ta}$) 'regard/consider'

ye for e: *-i.yess.ta($\sqrt{i.ess.ta}$) 'was (something)'
*tul.lye.se($\sqrt{tul.le.se}$) 'to visit'
*e.wu.lye.cye($\sqrt{e.wu.le.cye}$) 'mix/mingle'
*theyl.ley.pi.cyen($\sqrt{theyl.ley.pi.cen}$) 'television'
*pi.cyen($\sqrt{pi.cen}$) 'vision'
*pel.ye.ci.ko($\sqrt{pel.e.ci.ko}$) 'enact/open'
*ye.lyep.ta($\sqrt{e.lyep.ta}$) 'difficult/hard'
*thay.ye.na($\sqrt{thay.e.na}$) 'be born'

(9) mid-back vowel o and high-back vowel wu:

o for wu: $*kol.ko.lo(\sqrt{kol.ko.lwu})$ 'evenly/equally' $*-kwu(\sqrt{-ko})$ 'and' $*-twu(\sqrt{-to})$ 'too, also' $*po.tak(\sqrt{pwu.tak})$ 'request' $*po.mo(\sqrt{pwu.mo})$ 'parents'

* $ha.lo(\sqrt{ha.lwu})$ 'a day' * $ne.mo(\sqrt{ne.mwu})$ 'too/overly' * $sa.mo.sil(\sqrt{sa.mwu.sil})$ 'office'

wu for $o: *pa.lwu(\sqrt{pa.lo})$ 'straight/right away'

* $pyel.lwu(\sqrt{pyel.lo})$ 'particularly' * $cwul.op(\sqrt{col.ep})$ 'graduate'

* $cwu.kum.sik(\sqrt{co.kum.ssik})$ 'gradually' * $mwuk.pyo(\sqrt{mok.pyo})$ 'goal/objective'

* $toy.e.wun(\forall toy.e.on)$ '(state of) how (something) has been'

* $na.wun(\sqrt{na.on})$ 'come out/emerge'

* $po.hwu(\sqrt{po.ho})$ 'protection' * $hwu.cwu(\sqrt{ho.cwu})$ 'Australia'

(10) mid-front ey for dipthong yey:

ey for yey: *- $ke.ey.yo(\sqrt{-ke.yey.yo})$ 'going to ...'

*kwan.key(√kwan.kyey) 'relationship'

* $sey.key(\sqrt{sey.kyey})$ 'world'

* $key.sok(\sqrt{kyey.sok})$ 'continuously'

Errors related to aspirated consonants were in the low-frequency range, and only constituted of *c-ch* substitutions. Both types had a near-equal frequency count, and correspondingly the error occurrence rate was also low, at an overall rate of 0.0021.

(11) Aspirated consonant-related:

c for ch.: *cin.kwu($\sqrt{chin.kwu}$) 'friend'

*cin.chel ($\sqrt{chin.cel}$) 'kindness' *cey.so($\sqrt{chay.so}$) 'vegetable' *ce.um($\sqrt{che.um}$) 'first time'

*ma.cwu.phi.cwu(√ma.chwu.phik.chwu) 'Machu Piccu'

*ci.ha.cel(√ci.ha.chel) 'subway' *cwuk.kwu(√chwuk.kwu) 'soccer'

ch. for *c.*: **chey*(\sqrt{cey}) 'my (hon) '

*chay.mi.iss.ta($\sqrt{cay.mi.iss.ta}$) 'fun/interesting'

* $cha.ki(\sqrt{ca.ki})$ 'oneself' * $-kka.chi(\sqrt{-kka.ci})$ 'until ...'

*cin.chel (√chin.cel) 'kindness'

*sol.chik ($\sqrt{sol.cik}$) 'honest'

*choh.a ($\sqrt{coh.a}$) 'good/fine'

* $chwun.pi(\sqrt{cwun.pi})$ 'prepare'

* $chil.mwun(\sqrt{cil.mwun})$ 'question'

4.2.2 Patterns of Frequent Error Types

From the frequent error types identified above, three different patterns of common error categories have been observed: (a) Vowels with similar sounds; (b) Consonants with similar sounds; and (c) Consonants with sound alterations.

(a) Vowels with similar sounds

Nine groups of vowel errors were classified as frequent substitutions as a result of their similar sounds. Errors particularly worth noting are errors from examples (1) substitution of oy and way; (2) substitution of ey and ay; (8) substitution of ye for e; (9) substitution of o and wu; and (10) substitution of ey for yey. Others worth noting are the substitution of wu and u, ay and way, i and uy, and e and o. Mismatch in ay and ey was noticeably the most frequent but not with the highest error rate, followed by mismatch in e and ye, closely followed by mismatch in oy and way which had the highest error rate overall. While the frequency of the mismatch between ey and ay were similar both ways, the substitution of way for oy and u for wu were only a third of the substitution of oy for way and wu for u respectively. Other significant mismatches in vowels also had a similar occurrence rate between the pairs.

(b) Consonants with similar sounds

Consonants with similar sounds include tensed and aspirated consonants as in examples (7) tensification; and (11) aspirated consonant-related. Amongst the high frequency error types identified, substitutions between alveolar fricative s and tensed ss were the most frequent and with the highest error rate, followed by substitutions between alveolar stop t and tensed tt, velar stop t and tensed tt, and palatal stop t and tensed tt and tt for tt substitutions occurring more than three times the frequency of the latter, and tt for tt substitutions had a relatively higher frequency than the substitution of tt for tt while other pairs had a similar distribution between the two. Error occurrence rates also correspond to these frequencies for such pairs. Palatal stop tt and aspirated tt substitutions were least frequent with a near-equal frequency for both ways. It appears that only palatal tt was mismatched between the lenis, aspirated and tensed consonants,

whereas other consonants were only problematic between their lenis and tensed counterparts.

(c) Consonants with sound alterations

Sound alterations are very common in Korean with a large set of rules, where the most common ones worth noting in this study were resyllabification, liquidisation, phonetic variations of the consonant h, and coda neutralisation. Such types are shown in several examples above such as (3) lateral l-related; (4) mismatch between ng and h; (5) h omission and addition; and (6) coda-related.

The most frequent group of sound alteration errors were those related to resyllabification. Resyllabification is a phenomenon where the coda of a syllable is pronounced in place of the initial consonant of the next syllable, when the initial consonant is ng. The most frequent errors of resyllabification were the substitution of \emptyset .l and l. \emptyset with the highest error rate of 0.0203, followed by the substitution of n. \emptyset for \emptyset .n at 0.0059, and substitution of n. \emptyset for \emptyset .n being least frequent at 0.0027. The occurrence of the substitution of l. \emptyset for \emptyset .l was equal to the substitution of n. \emptyset for \emptyset .n, both with the frequency of only half that of the substitution of \emptyset .l for l. \emptyset . Such errors occur due to mistranslation of phonetic representation and lack of knowledge of orthographic rules.

Liquidisation occurs when the consonant n in the coda is pronounced as the consonant l when it comes before or after the initial consonant l. In this study, the substitution of l.l for n.l was the most meaningful with a frequency of over 10 but with one of the highest error rates of 0.0800. The substitution of l.n for l.l only occurred once, hence will not be deemed as significant in this study.

The next most frequent category of sound alteration errors were those related to phonetic variations of h. This includes the omission or addition of h in a single or double consonant coda (also known as consonant cluster simplification), or h-weakening which is usually apparent in casual speech where the pronunciation of h is silent. This type of error occurred most frequently in the substitution of the initial silent consonant 'o' thus ϕ for h such as *cal.a.ta($\sqrt{cal.ha.ta}$), but the highest error rate occurred in the omission of h in the coda at 0.0203, followed by the substitution of n. for nh. in the coda at 0.0157, but least in the substitution of nh. for n. n the coda at 0.0012. The substitution of $nh.\phi$ for $\phi.n$, also in the resyllabification category, was least frequent with a relatively low error rate of 0.0027, and shows an overgeneralisation of orthographic rules, such as in *anh.i($\sqrt{a.ni}$) and *el.manh.a($\sqrt{el.ma.na}$). In both cases,

there appears to be confusion with the orthography of *anh.ta* and *manh.ta* respectively. Overall, *h*-omission errors were relatively higher than *h*-addition errors.

Two types of errors were categorised as meaningful errors due to coda neutralisation, the most frequent being the substitution of p. for ph., closely followed by the substitution of s. for ss.. This type of sound alteration occurs when the bilabial stops p and ph, alveo-dental, palatal stops and fricatives t, th, s, ss, c, ch and h, and velar stops k, kh and kk are not released and are neutralised to the sounds p, t and t respectively. In the case of the substitution of t, the codas are neutralised to the sound t and hence the erroneous substitution. In the substitution of t, for t, both codas are neutralised to the sound t, which appears to be the reason for the confusion between the codas t and t and t and t appears to be more concerning with an error rate of 0.0507.

4.3 Discussion of Results

In this section, a detailed discussion of the possible causes of the significant error patterns and their specific error types is presented. An explanation is given for errors in vowels with similar sounds of monophthongs and diphthongs, consonants with sound alterations including errors due to resyllabification, consonant assimilation, phonetic variations of h and coda neutralisation, and consonants with similar sounds amongst the three-series consonants t,k,c and fricatives s and ss.

4.3.1 Vowels

Vowel errors due to similar sound in this study are categorised by substitutions amongst monophthongs and substitutions with diphthongs. Substitutions amongst monophthongs are mismatches between *ay* and *ey*, *e* and *o*, *o* and *wu*, and *u* and *wu*, and substitutions with diphthongs include the mismatch between *oy* and *way*, *ay* and *way*, *i* and *uy*, *ey* for *yey* and *ye* and *e*.

The highest error rate in the mismatch of monophthong vowel errors was observed in the substitution ay and ey, which also had the highest frequency constituting for 24.8% of the total 1,308 number of vowel substitution errors. The mismatch of e and o had the next highest error rate and frequency amongst monophthong vowels. The

main substitutions between monophthong vowels are shown with arrows in the table below:

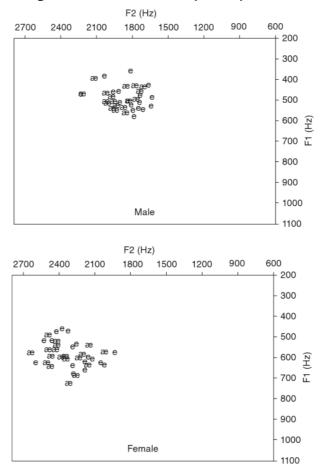
Front Back **Unround** Round Unround Round i High wi wu 11. Mid ev oy e0 Low ay

Table 4 Main substitutions between monophthong vowels

In general, confusions arise between the similar sounds of mid- and low-unround vowels, high- and mid-round vowels, high unround and round vowels, and mid unround and round vowels. These main mismatches were also apparent in Shin S-C (2007b) and Sohn H-M (1986), where Shin S-C (2007b) also identified the mismatch between ay and ey most frequent amongst KFL learners, closely followed by mismatches between o and e. In the case of the substitution between ay and ey in this study, although the error rate was not the highest and may seem relatively low, grammatical case particles such as ey and eyse may be accountable for the high occurrence of the vowel ey, which KHL learners usually do not have a problem with. Hence looking at it from a purely orthographic perspective, the substitutions between ay and ey appears to be a concerning type of error.

Distinguishing the difference in sound between *ay* and *ey* appears to be particularly difficult, due to their phonological similarity, which has appeared as one of the most frequent errors in Korean language learners from previous studies (Sohn H-M, 1986; Shin S-C, 2001b, 2007b). In fact, Yoon K and Brew (2006)note that modern Korean has seven vowel segments, not distinguishing the mid- and low-front vowels *ay* and *ey* as most younger Standard Korean speakers cannot differentiate their use. Brown L and Yeon (2015) show a formant plot of the pronunciations of *ay* and *ey* by 10 speakers of native standard Korean where no significant difference was observed.

Figure 2 Formant Plot of ay and ey



In the case of English speakers, the problem may arise from the mismatch with phonological features in English, where Sohn H-M (1986) describes that the pronunciation of Korean vowel *ay* falls between the pronunciation of English vowels 'e' and 'a'. However, the inconsistency of graphemes that represent these sounds in English may constitute for the confusion between these vowels, as there is phonological similarity between English sounds /e/, /ɛ/ and /æ/ which are not perfectly equivalent to the phonological properties of Korean vowels *ey* and *ay*. For example, the vowel *ay* in Korean is similar to the vowel sounds in English words 'apple', 'cat' or 'bat', and *ey* is similar to those in 'editor', 'head' or 'bed', but these are not exactly identical. Such mismatch between Korean phonemes and English graphemes may also cause confusion between similar vowels in Korean such as *ay* and *ey*.

Weakness in phonological interpretation may also constitute for the weak processing of orthographic skills. Wang M et al. (2006) demonstrated the correlation of phonological processing with the learning of reading orthographies, which also suggests

that the ability to distinguish phonemes by hearing impacts on the ability to distinguish orthographies by writing. In the case of the effects of childhood overhearing, when heritage learners encounter a greater variety of sounds of both languages at an early age, it is more likely that they can distinguish such similar phonemes than those with monolingual ability. However, in most cases of KHL learners, because modern Korean hardly distinguishes the difference between ay and ey phonologically and most younger Koreans do not separate their usage apart from orthographically, it is most likely that childhood overhearing does not have much effect on KHL learners' ability to distinguish the sounds ay and ey. In addition to these factors, dialectal variations may have an impact on how KHL learners perceive such sound differences, where the pronunciation of ay and ey are not distinguished in some dialects such as the kyeng.sang dialect.

In the mismatch between the vowels o and wu, a negative transfer of the sound quality English 'o' and a colloquial or dialectic transfer seems to be the main cause for these substitutions, along with individual factors. In modern Korean, the suffix -ko is usually pronounced as -kwu amongst younger generations. This is similar to the usage of the auxiliary -to as in hay.to tway 'allowed to do (something)' or an cwe.to kwayn.chanh.a 'don't have to give (me)', where in speech it is usually pronounced as -twu. This phenomenon can also be observed in the substitution of wu for o_s as in the orthographic notation of the colloquial pronunciation of pa.lo 'instantly' to pa.lwu. This suggests that KHL learners' orthographic skills reflect their colloquial use rather than their morphological or grammatical knowledge. Interestingly a study of KHL learners in English speaking countries by Choe Yoon (2007) did not identify this colloquial usage as a frequent error, which agrees with the low error rate identified in this study of 0.0030, which shows that it is not a general problem for KHL learners overall.

Other errors due to mismatch in o and wu were due to similar graphemes between the two vowels but these were less frequent. Examples include errors such as $ha.lo(\sqrt{ha.lwu})$ 'day', $ne.mo(\sqrt{ne.mwu})$ 'too, overly' and $cwul.op(\sqrt{col.ep})$ 'graduate'. Errors such as $po.mo(\sqrt{pwu.mo})$ 'parents' may have occurred due to the similarity in graphemes, but also due to the existence of the homonym po.mo 'nanny' to which the learner may have unconsciously referred to. A sporadic but meaningful error type in this category was the confusion of grammatical items in the word kol.ko.lwu 'evenly', where learners mistakenly interpreted it as a conjunction of a stem kol.ko with the case particle

-lo. In the case of learners from English-speaking countries, Shin S-C (2007b) notes that these mismatches are due to the interference of the English 'o', where the sound quality of the alphabet 'o' is different to that of the Korean vowel o. In the case of KHL learners, there also appears to be some colloquial transfer from their pronunciations.

Other less frequent errors of vowels by sound include the substitution of wu and u and e and o. Confusion between the vowels wu and u arise from the possible ambiguity in differentiating between the two in colloquial pronunciation, and also perhaps from the rare or non-existent u sound in English as noted by Sohn H-M (1986). The sound of the Korean vowel u does not have a precise match in English, which may be the reason for the confusion between the sound qualities of similar sounding vowels such as wu and u where learners may be mistaken one for the other. In addition to such mismatch between phonemic characteristics between English and Korean, convenience in pronouncing u after a syllable over wu appears to be another cause, as the 'neutralisation' of wu to u was more than 3 times the frequency of the substitution of u for u. The error rate for these pairs were very low, but this again may be because of the frequent occurrence of grammatical items which KHL learners comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling, such as u0 and u0 are the comparatively have less difficulty with in spelling.

The mismatch between e and o was identified as a high frequency error in previous KFL Error Analysis (EA) studies (Sohn H-M, 1986; Shin S-C, 2007b) and also appears to have occurred due to interlingual interference, where Shin S-C (2007a) notes that this again may be largely due to the difference in sound features of o in English and Korean. As for KHL learners who are familiar with both Korean and English phonemes, it appears that they are less concerned about such phonemic similarity than KFL learners, although there does appear to be some interlingual interference in their use. The English 'o' has mainly three different pronunciations, namely those that represent the sound /oo/ as in 'boat', /ɒ/ as in 'hot' and /ʌ/ as in 'love'. What is of particular interest here is the sound of 'o' in the words 'hot' and 'love', where /ɒ/ is a low-back rounded vowel and/ʌ/ is a mid-back unrounded vowel. The sound quality of the Korean mid-back unrounded vowel e appears to be similar to the sound somewhere between /ɒ/ and /ʌ/ which seem to cause confusion in distinguishing between e and e. For example, one of the more frequent errors of this type were in the transliteration of the name

'Leonardo', where the sound of the first 'o' was interpreted as *e* and written as *li.e.na.to* rather than *o* in *ley.o.na.lu.to*. This, however, may occur as a problem of loan and foreign word interpretation and does not appear to be a major problem for KHL learners.

The highest error rate with high frequency in diphthong vowels was seen in the substitution of oy and way. This mismatch poses as highly significant and requires special attention for KHL learners. Similarly to the vowels ay and ey, the diphthong vowels oy and way are pronounced essentially the same in speech which causes confusion in their spelling. The most frequent mismatch was in the verb toy.ta 'to become, get to', and less frequently in the noun tway.ci 'pig' and other sporadic words such as choy.ko 'best' and koyng.cang.hi 'very'. Of the total number of errors of this type, the mismatch in vowels in the verb toy.ta which constituted 71.25% of the 80 errors of mismatch between oy and way, is of particular interest to this study. In general, because a predicate is structured as a verb or adjectival verb stem with an ending, when the ending -e is added to the verb stem of the verb toy.ta, it becomes toy.e which is abbreviated as tway. The reason for the exceptionally high frequency of words with the verb stem toy appears to be due to the lack of such knowledge of forms, which can be easily improved by implementing activities to teach such differences. The reason for other errors of this type may be due to the existence of a homonym such as in the confusion between tway.ci and toy.ci, where learners may have referred to the expression toy.ci that they are unconsciously familiar with. Other errors appear to have occurred due to the closeness of phonetic features between the two vowels.

The mismatch with the second highest error rate was the substitution of the diphthongs ay for way. This pair was in the lower frequency range which appears to be because of the least frequent usages of the diphthong way with its minimal grammatical forms. On the other hand, way for ay substitutions were not identified. Similarly to the substitution of monophthong vowels wu for u, this appears to be due to the 'neutralisation' of the sound way to ay, with the most frequent substitutions occurring in the words tway.ci to *tay.ci and tway.yo to *tay.yo. The substitution between i and uy had a lower error rate, where the vowel uy was replaced by i in cases where uy came as the last syllable in a word. Confusion may arise due to the sound alteration of uy to uy when uy comes second place or beyond in a word, or when used in conjunction with a consonant. For example, errors were made in the words such as uy 'almost', uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'etiquette' and uy 'hope' where uy in these cases are often pronounced as uy 'hope' where uy in these cases are often pronounced as uy 'hope' where uy in these cases are often pronounced as uy 'hope' where uy in these cases are often pronounced as uy 'hope' where uy in the uy 'hope' uy 'hope' uy 'hope' where uy in the uy 'hope' uy 'hope

which appears to be the reason for the erroneous notations *ke.i, *yey.i and *hi.mang respectively. Remedial strategies for KHL learners should be planned by taking into account such negative transfer of oral/aural cues to written orthography.

The most frequent error involving diphthong vowels with similar sounds was the substitution of ye for e. These vowels are not phonologically similar individually, but undergo a phonological transformation from the sounds e to ye when used in conjunction with certain letters. For example, the majority of errors in the substitution of ye for e occurred when e came after a vowel, as in thay.e.na 'born', or when used in conjunction with certain consonants as in mayc.e 'bond, form'. This phenomenon occurs due to y-dropping in diphthongs in certain cases which causes confusion between the monophthong vowel and its complementary diphthong. For example, Kang Y (2013:42) notes that the glide y is deleted before e 90% of the time after a consonant in modern Korean, as in the examples below:

 $kye.cip \rightarrow [ketsip] 'girl'$ $hye.thayk \rightarrow [het^hæk] 'benefit'$ $kyae \rightarrow [kæ] 'that kid'$ $kwan.kye \rightarrow [kwanke] 'relation'$ $ci.hye \rightarrow [tsihe] 'wisdom'$

Likewise, the substitution of *ey* for *yey* was also apparent in this study, which had a higher error rate compared to *ye* for *e* substitutions, but the broader usages of the vowel *e* that are not subjected to phonological modifications may account for this result. The mismatch of *ey* for *yey* was most apparent in the polite declarative *-i.ey.yo*, where learners often confuse the sound *yey* for *ey*. In the case of the substitution of *ye* for *e* in this study, the most frequent type was the mismatch in the past plain declarative *i.ess.ta*, erroneously written as *i.yess.ta*. In these two cases, attention may be given to the confusion with the abbreviated forms or the lack of knowledge about the relations between the original form and its abbreviation as a possible cause for such error, where *i.ey.yo* is abbreviated to *yey.yo* and *i.ess.ta* is abbreviated to *yess.ta*. If learners are taught and aware of more structural rules of orthography such as in the above cases where *i.ey=yey* and *i.ess=yess* rather than relying heavily on aural cues, it can be particularly effective in improving learners' orthographic accuracy at a more systematic level.

4.3.2 Consonant Sound Alteration

Inconsistency between phonemes and graphemes due to consonant sound alterations are one of the most common causes of error for KHL learners who tend to write as they pronounce or hear (Pyun and Lee-Smith, 2011). As supported by Pyun and Lee-Smith, amongst the most common orthographic error categories produced by KHL learners, errors due to resyllabification were the most frequent, followed by errors related to the phonetic variations of h, errors in liquidisation, and least frequently in coda neutralisation.

Errors due to resyllabification in sound occur also due to a lack of awareness of morphophonemic structure of words. Resyllabification is very common in Korean phonology but its writing system relies heavily on both inflectional and derivational morphologies including lexical compounding, particularly with Chinese loan words, and hence its phonological opacity is preserved where phoneme-grapheme correspondence is obscured (Kim Y-S, 2010). Thus for KHL learners who rely on phonological and aural cues when spelling, they are prone to making errors in morphologically complex words that undergo phonological shifts, which apply to not only to resyllabification, but also to coda neutralisation and consonant assimilation and other sound alterations not discussed in this study.

In this study, $\emptyset.l$ for $l.\emptyset$ substitutions were the most frequent with the highest error rate, followed by $n.\emptyset$ for $\emptyset.n$, and substitutions of $l.\emptyset$ for $\emptyset.l$ and $nh.\emptyset$ for $\emptyset.n$ being less significant. While $\emptyset.l$ for $l.\emptyset$ substitutions show a phonemic transcription of words where the subsequent \emptyset was replaced by the consonant of the preceding syllable coda as in *to.la.ka.ta($\sqrt{tol.a.ka.ta}$) 'to return' or *cwu.lin.ta($\sqrt{cwul.in.ta}$) 'to reduce', errors in $l.\emptyset$ for $\emptyset.l$ and $n.\emptyset$ for $\emptyset.n$ rather show an overgeneralisation of resyllabification rules, where the learner replaced the initial consonant of the subsequent syllable with \emptyset and shifted it to the coda of the preceding syllable, as in *pwu.dul.ep.ta($\sqrt{pwu.du.lep.ta}$) 'to be soft' or *man.ul($\sqrt{ma.nul}$) 'garlic'. There are two explanations for this phenomenon. First, this shows that there is a high chance that KHL learners are aware of resyllabification rules, but commit errors due to their lack of morphophonemic knowledge. The second is that they may be confused by their knowledge of existing homonyms, such as in the error *na.la($\sqrt{nal.a}$) 'nation', or by the wrong compounding of homophonic word stems with case particles or word endings such as in the errors

* $al+ey(\sqrt{a.lay})$ 'below', * $ttal+a(\sqrt{tta.la})$ 'following' or * $an+i(\sqrt{a.ni})$ 'not'. These are, however, minimally significant observations according to the low error rates, although special attention should still be given in incorporating lessons on morphological identification in written orthography, and further on the improvement in distinguishing between homonyms and homophonic items.

Errors related to the variations of h constituted for a significant number of 30.0% of the total 659 errors of sound alteration, with the substitution of ϕ for h being most frequent, and errors related to the addition of h constituting for 17.2% of the total number of errors in this category, and the omission of such constituting for 66.7%. Such errors appear to have occurred due to a 'silent' h sound in the coda or initial consonant between syllables, where h in the initial syllable position at the beginning of a word does not appear to have caused much confusion as it is strongly aspirated which appears to be the reason for the relatively low error rate for this type. The substitution of ϕ for h shows the deletion of the h sound when h occurs after a nasal or lateral consonant or a vowel such as in $i.yay(\sqrt{i.hay})$ 'understand', $thong.ey(\sqrt{thong.hay})$ 'through, via' and $cal.a.ta(\sqrt{cal.ha.ta})$ 'to do well'. Similarly when h is in the coda of a verb or adjective stem followed by a vowel, it is again silent such as in *ne.u.sey.yo($\sqrt{neh.u.sey.yo}$) 'put into' and *co.un($\sqrt{coh.un}$) 'good'.

Though not too concerning, another frequent confusion was between the syllables an and man where learners were confused with or overgeneralised by interpreting them as the sentential negation marker anh and adjectival verb stem manh. While some students omitted h in words such as manh.a.yo 'a lot of' or anh.sup.ni.ta 'be not', more errors were produced by overgeneralising words such as a.ni 'no', an.nun.ta.ko 'hug, hold', man.tun 'make' and -man.khum 'as much as...', writing them as *anh.i, *anh.nun.ta.ko, *manh.tun and *-manh.khum respectively. In the case of the syllable an, both an and anh are stems of negation words which are pronounced the same unless anh comes before a lenis stop where h alters the lenis to an aspirated sound, and this appears to be one of the primary causes for this error. Confusion between man and adjectival verb stem manh is also the same case in terms of pronunciation, and this is due to the lack of morphological awareness. However because the error rate of n. for nh. was much higher than nh. for n., these errors seem to be sporadic and are not of much concern.

Errors in liquidisation were one of the high-rate errors but with low frequency. The main type of error in liquidisation was the substitution of l.l for n.l, such as in *wol.ey($\sqrt{won.lay}$) 'originally' or *kul.ley($\sqrt{kun.lay}$) 'these days'. Liquidisation usually occurs with Sino-Korean words (Sohn H-S, 2006), hence correct orthography of such words requires precise knowledge of han.ca(Chinese characters), which KHL learners appear to be incompetent in. For example, the word won.lay is composed of the han.ca won meaning 'origin', and lay meaning 'to come'. In Choe Yoon's (2007) study, errors due to liquidisation occurred in the words il.nyen 'one year' and yen.lak 'contact, call', both of which are used commonly in everyday language, but the error rate of the word yen.lak was much higher than that of il.nyen, which Choe-Yoon notes it as a result of KHL learners' knowledge of the bound noun nyen 'year'. Usually errors due to nasalisation pose as high difficulty errors along with liquidisation errors for KFL learners, but this does not appear to be a high difficulty item for KHL learners apart from some sporadic errors of m.n for p.n in -(s)up.ni.ta forms.

Neutralisation of coda consonants occur when the bilabial consonants p, ph and pp are pronounced as p; k, kh and kk are pronounced k; and t, th, tt, s, ss, c, ch, cc and h are pronounced as t. The most common errors in coda neutralisation occurred in the substitution of ph. for p. as in * $yen.suph(\sqrt{yen.sup})$ 'practice' and * $mo.suph(\sqrt{mo.sup})$ 'form, figure', and in the substitution of s. for ss. as in * $ca.las.ta(\sqrt{ca.lass.ta})$ 'grow' and * $hays.ta(\sqrt{hayss.ta})$ 'do'. Although s. for ss. is not a case of direct coda neutralisation, it is the result of the neutralisation of s and ss to the same sound t. While these examples show that KHL learners are also aware of coda neutralisation rules, they are in need of a more specific understanding to reduce their tendency to overgeneralise rules or not to confuse the usage. In the case of the neutralisation of codas, what is required is KHL learners' attention to distinguish forms from sound, but more importantly it is essential that they know the fundamental rules of Korean orthography such as the fact that no grammatical form of -ass or -ess that is used as a tense infix to indicate the past tense or completion ends with the single coda s.

4.3.3 Consonants with Similar Sounds

Consonants with similar sounds in this study refer to the three-series consonants, which has lenis [-tense, -aspirate], aspirated [+tense, +aspirate] and fortis [+tense, -

aspirate] counterparts. Typically Korean is known to have three kinds of voiceless stops in each, namely p, t, k in lenis, ph, th, kh in aspirated, and pp, tt, kk in fortis. Kim and Duanmu (2004) note that while two stops are common in other languages too, Korean is the only language with three stop consonants which may be the cause for the high difficulty of KFL learners in learning the differences between these sounds. In general, these do not present as particular difficulties to KHL learners in previous studies such as in Choe Yoon (2007), supported by Lee SA and Iverson (2012a) which notes that children who have learnt the stop categories before five years of age can distinguish between them. In this study, errors between only the lenis and fortis in the three stop consonants and fricatives were identified as significant, and only the palatal c and its counterparts were frequently confused between all three types.

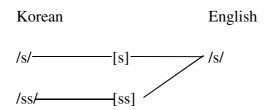
Frequent errors identified include the mismatch between alveo-dental fricatives s and ss, alveo-dental stops t and tt, velar stops k and kk, and palatal stops c and cc, and c and ch. Out of the total 264 errors in this category, mismatch between s and ss were the most frequent with the highest error rate of 0.1391, and lenis for fortis substitutions had an overall higher frequency and error rate than fortis for lenis substitutions, accounting for 51.9% of errors with an error rate of more than 0.0400. There may be several explanations for such high frequency and occurrence rate in mismatch between lax and tensed consonants which is not as apparent in aspirated stops. Sohn H-M (1999) states that while aspirated stops in Korean are similar to that of English such as in pill, till, chilly and kill, the phonetic quality of lax stops in Korean are not the same in English, and tensed stops occurring in the syllable-initial position in Korean is only similar (but not the same) to English voiceless stops when they occur after s such as speak, strong and ski, or to the quality of j in an utterance such as "Please sit, John". Meanwhile, Sohn H-M (1986) also notes that tense and aspirate features merely play a functional role for allophonic variations in English, while voice features of English are not significant in Korean where most lax stops are voiceless. The distinction of Korean lax, aspirated and tensed consonants and their influence on word meanings are illustrated below:

- a. sal 'flesh' ssal 'rice'
- b. tal 'moon' thal 'mask' ttal 'daughter'

c. kay.ta 'spread out' khay.ta 'dig' kkay.ta 'break'

d. ca.ta 'sleep'
cha.ta 'kick'
cca.ta 'salty'

The reason for the high difficulty in distinguishing between fricatives s and ss appears to be due to the phonemic similarity between the pair. The sounds are again not equivalent in English, where ss is similar to 's' of English, and s in Korean is treated as a lax consonant, where it is slightly aspirated when in the initial syllable position (Lee I and Ramsey, 2000). In addition, when s comes before i or s, it becomes strongly palatalised as in si.kyey 'watch, clock', which is the reason why speakers of English may interpret the sound s as 'sh' and ss as 's' in English (Sohn H-M, 1999). Sohn H-M (1986:467) illustrates the mismatch between the s sounds of Korean and English as below:



As seen above, while there are two variations of the alveo-dental fricative in Korean, English only has one voiceless alveolar fricative s, while the voiced counterpart is the consonant 'z' which does not exist in Korean. The s-ss distinction appears to be "fuzzy" amongst the younger Korean generation too, and is not maintained in some dialects such as the kyeng.sang dialect (Lee I and Ramsey, 2000) which may be a cause for the confusion between the sounds s and ss amongst KHL learners from family with kyeng.sang backgrounds, although this component was not examined in this study. Most s for ss substitutions appear to have occurred due to the phonetic similarity between the two, such as $*nal.si(\sqrt{nal.ssi})$ 'weather' or $*sa.wess.ta(\sqrt{ssa.wess.ta})$ 'argued, fought', and ss for s substitutions appear to have occurred due to the tensification of s after a

consonant according to the Korean pronunciation rules²⁰ (Lee H-S et al., 2010) mostly observed in loan words such as in *hayl.ssu.cang($\sqrt{heyl.su.cang}$) 'gym' or *thayk.ssi($\sqrt{thayk.si}$) 'taxi' but this was not so significant in terms of error rate.

Further similar confusion was identified amongst the lax and tensed counterparts of t and k. Likewise, most tt for t substitutions appear to have occurred due to the tensification after certain consonants such as in *cel.ttay($\sqrt{cel.tay}$) 'absolute, definite' and *pal.ttal($\sqrt{pal.tal}$) 'develop', similarly occurring in kk for k substitutions such as in *-kke.yey.yo $(\sqrt{-ke.yey.yo})$ 'going to...'. It is notable here that the ratio of the error rate of lax for tensed stops between these pairs was much higher than its converse, which has been similarly identified by Shin S-C (2007b) in his study on orthographic errors by KFL learners. This leads to several observations about KHL learners. First, this shows that KHL learners may share certain characteristics with KFL learners in that KFL learners find it difficult to distinguish tensed sounds which are not apparent in English. Thus the tendency to transcribe tensed consonants as lax ones appears to be a result of interlingual interference from English where tensed sounds are perceived as lax sounds. However while this may apply more to KFL learners who are new to tensed features of Korean, it may not necessarily be the case for KHL learners who often have native-like proficiency in pronunciation. The question may arise by the results in this study where minimal mismatches were made between aspirate consonants, which shows their ability to distinguish between lax-aspirate and lax-tensed sounds of Korean. What this suggests is that KHL learners' perception of both English and Korean sounds amplify their ability to distinguish between aspirate sounds which are similar in English too, but at the same time experience some interlingual interference from English in the perception of tensed sounds which are not significant in English, but are not affected as much as KFL learners. Another factor for the confusion may be the graphical mismatch between

 $^{^{20}}$ Rule 12: When s comes after h (nh,lh), s is pronounced as ss (Chapters 2-4 and for the rest of rules below Chapters 2-6)

Rule 23: When k,t,p,s,c comes after the coda k (kk,kh,ks,lk), t (s,ss,c,ch,th), p (ph,lp,lph,ps), it is pronounced as tensed.

Rule 24: When k,t,s,c comes in the initial syllable after the coda n (nc), m (lm)of a stem, it is pronounced as tensed.

Rule 25: When k,t,s,c comes in the initial syllable after the coda lp, lth of a stem, it is pronounced as tensed.

Rule 26: In a *han.ca* word, when *t,s,c* comes after the coda *l*, it is pronounced as tensed.

Rule 27: When k, t, p, s, c comes after the determiner -u(l), it is pronounced as tensed.

Rule 28: When a compound word should have an epenthetic s with prenominal function but is not marked with one, then k,t,p,s,c of the initial syllable of the final compounded word is pronounced as tensed.

lax and tensed pairs, and also a matter of poor learning of word sounds where they tend to transliterate them as they perceive.

An interesting finding was the mismatch between c, ch and c,cc which was the unique aspirate mismatch amongst the significant error types identified. Mismatches for the lax c and its counterparts coincides with findings in Kim M-O (2001b), Shin S-C (2007b) and Lee JH (2011) which all identified the series as one of the main orthographic errors. Although these mismatches were not the most frequent error types in this study, they are significant in that KHL learners share similar traits to KFL learners to some level in the perception of Korean sounds. The consonants c, ch and cc are palatalised which is not apparent in English, hence English speakers interpret the sound c with "a more apical quality plus rounding" pronouncing c as ch as in cip 'house' to 'chip' or 'cheep' (Lee I and Ramsey, 2000:63). The qualities of c and ch are therefore slightly different to that of other stop consonants, where both c and ch are 'aspirated', where c has 'very light aspiration' and ch has a 'heavy aspiration' (Choo and O'grady, 2003). Thus, the quality and degree of aspiration of the lax c make it difficult for learners with an English L1 to distinguish between the sounds. This may be the same case for KHL learners too, however the mismatch between c and ch had a very low occurrence rate, hence is not worth further noting in this study, except to re-confirm that KHL learners had little difficulty distinguishing between the lax and aspirated sounds, not just in the pair of c and ch but also in other pairs of the consonant series.

4.4 Characteristics of KHL Learners' Orthographic Skills

This study has identified that KHL learners show some significant similarities and differences to KFL learners in their orthographic skills. There are, however, some distinctive characteristics in the orthographic skills of KHL learners that can be drawn from this study compared to that of KFL learners from previous studies.

Firstly, judging their characteristics based on the four groups of phonology-based orthographic errors defined by Sohn H-M (1986)²¹, a comparison of KFL and KHL learners' orthographic skills can be summarised as follows in the table below:

²¹(a) graphic mismatch;(b) phonemic transcription;(c) wrong pronunciations of words; and(d) wrong graphic association of sound features.

Table 5 Main characteristics of KFL and KHL learner orthographic errors

	KFL	KHL
Beginner	 Errors due to graphic mismatch Errors due to phonemic transcription 	Skip due to high proficiency in pronunciation and basic knowledge of the alphabet
Intermediate	 Errors due to wrong pronunciation of words Errors due to wrong graphic association of sound features 	 Errors due to phonemic transcription Errors due to wrong graphic association of sound features

Due to their advanced proficiency in oral and aural skills, KHL learners generally skip beginner level classes and start their formal education at intermediate level (You, 1997). Thus in general, KHL learners do not experience many graphic-related difficulties as they typically have already acquired alphabet and syllable construction at home, but commit high frequency errors in phonemic transcription due to their lack of morphophonemic knowledge which is usually taught in beginner classes, and errors due to wrong graphic association of sound features of similar phonemes which appears to be due to a combination of interlingual and intralingual interference.

While previous studies in KFL learners' orthographic skills reveal that (a) their errors are heavily influenced by interlingual components such as gaps in corresponding equivalent sounds between English and Korean; (b) some intralingual components such as phonetic closeness in Korean; and (c) they do not experience much difficulty with morphophonemic orthography – the general pattern of KHL learners' spelling process does not appear to completely agree with these characteristics. Firstly, the larger proportion of high frequency and high occurrence errors in this study have resulted from the phonetic closeness of vowels rather than consonants, where most of the consonant errors occurred due to mismatch of graphic association and phonological interpretation such as in consonant assimilation. Additionally, even with a significant proportion of vowel errors and consonant tensification errors, these also appear to be a negative transliteration of pronunciation to writing. What this suggests is that KHL learners, like other HLLs in general, possess good phonology and are significantly more native-like in distinguishing between similar consonants such as lax, aspirated and tense stops, but

find it difficult to learn 'standard' Korean orthography which eliminates regional dialectal forms, colloquial pronunciations and idiolects.

From this perspective, KHL learners rather show some similar traits to Korean native speakers. In a general observation of spelling errors committed by Korean native speaker students in Korea, Jeng (2004) notes the doubling of lateral *l* between syllable boundaries and tendency to transliterate pronounced sounds into writing the two main error patterns observed amongst beginning primary school students. For example, students in this group showed the tendency to 'neutralise' vowel sounds by substituting diphthong vowels with monophthong vowels as in *si.wess.ta($\sqrt{swi.wess.ta}$) 'easy' or *chwu.ess.ta($\sqrt{chwu.wess.ta}$) 'cold'; a reflection of the kyeng.sang dialect in the doubling of lateral l as in *kal.lye.ko($\sqrt{ka.lye.ko}$) and mismatch of u and e as in * $tu.lep.hi.ta(\forall te.lep.hi.ta)$ 'make resyllabification dirty'; errors such * $pal.pa.se(\sqrt{palp.a.se})$ 'step on, tread on'; consonant assimilation errors such as * $wol.lay(\sqrt{won.lay})$ 'originally'; and wrong pronunciation as in *cco.kum.pakk.ey $(\sqrt{co.kum.pakk.ey})$ 'only a little'. In addition, KHL learners share some similarities with Korean native speaker university students too in tensification such as *nwun.ssal $(\sqrt{nwun.sal})$ 'frown', *kyel.ttan $(\sqrt{kyel.tan})$ 'decision' and *sa.kken $(\sqrt{sa.ken})$ 'incident', and in mismatch of similar vowels such as *woy.ku.lay, wey.ku.lay($\sqrt{way.ku.lay}$) 'what's the problem'.

A common trait amongst these error groups is that a large majority is a negative transliteration of colloquial pronunciation to writing. While this shows that learners of Korean in general face challenges in Korean orthography due to its phonological opacity, it can be said that KHL learners' orthography have universal characteristics of their own which combines traits of both KFLs' and Korean native speakers' orthography. Specifically, they resemble a combination of beginner level native speakers and intermediate KFL learners from the interlingual perspective. The reason for such appears to be due to childhood overhearing where children in general acquire colloquial forms at home via trial and error from which they develop to and progress on systematic rules of language through formal language education at school. Hence within the childhood period ²² where the child develops an awareness of phonological distinctions, KHL learners typically acquire native-like proficiency in speaking and listening skills from overhearing colloquial forms, but lack progression to later language

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²² Knightly et al. (2003) define this period to be up to 12 years, whereas studies such as Jeng (2004) refines this period to 2.5-4 years.

development in grammatical and orthographic skills due to insufficient formal written education. This is particularly apparent in morphophonemic orthography, where as opposed to KHL learners, KFL learners are introduced to the invariable verb or adjective stem of a word when learning new grammars or vocabulary, which makes it easier for them to understand orthographic conventions.

4.5 Summary

Thus far, this chapter has identified and discussed the possible causes of high occurrence and high frequency orthographic errors by intermediate KHL learners. The analysis of the results indicates that KHL learners rely heavily on aural cues and have a tendency to write the way they speak, which reflects the results of previous KHL studies. A total of 2815 orthographic errors were identified, from which eleven types of high frequency and high occurrence rate errors were identified, being the mismatch of midfront unrounded vowels oy and diphthong way, the mismatch of mid- and low-front unrounded vowels ay and ay, lateral ay-related, the mismatch between ay and ay, the mismatch between ay and ay, the mismatch between mid-back vowel ay and diphthong ay, the mismatch between mid-back vowel ay and aspirated consonant-related. These were then grouped into three general categories: errors due to vowels with similar sounds, errors due to consonants with similar sounds, and errors due to consonants with sound alterations.

From vowel errors, the mismatch between ay and ey had the highest frequency, which constituted for 24.8% of the total number of vowel substitution errors. Meanwhile, substitution between diphthong way and oy had the highest error rate at 0.4701, which mainly occurred in the verb toy.ta 'to become, get to' constituting for 71.25% of the total number of errors of this type. From consonant errors, errors due to resyllabification were most frequent with the substitution of $\phi.l$ for $l.\phi$ with the highest error rate, followed by errors due to the omission of h which occurred most frequently in the negation marker anh and adjectival verb stem manh. In consonants with similar sounds, the substitution of fricative s for ss had the highest occurrence rate at 0.1391, and lax for tense stops in consonants c, t and t were more frequent than the substitution of tense for lax stops.

There appears to be both interlingual and intralingual factors causing these errors. In the case of vowels, although some mismatches occurred partly due to non-equivalence with English sounds and negative transfer, the main reason was perceived to be due to a weak phonological interpretation of similar sounds and colloquial phonological transfer. For consonants, the high occurrence of errors between lax and tensed stops appeared to have occurred mainly due to the lack of absolute equivalence between the sound qualities of Korean and English lax and tensed stops. This was particularly the case for the mismatch between fricatives *s* and *ss* which also reflected some dialectal and pragmatic traits of Korean speakers, where the distinction is not maintained amongst the younger Korean generation.

Sound alteration was the main cause of errors amongst KHL learners, which reflects their tendency to transcribe the way they hear or speak. Weakness in the knowledge of inflectional and derivational morphologies including lexical compounding and *han.ca* was seen as the main cause of such errors. Such characteristics appear to be a result of lack of formal schooling at beginner level, where systematic rules and invariable verb or adjective stems of a word are taught. In this respect, KHL learners resemble the characteristics of both KFL learners and native speakers, in that they experience some difficulties due to gaps in one-to-one correspondence between English and Korean sounds such as KFL learners, but they do not experience noticeable graphic related difficulties but have difficulties in morphophonemic aspects in the same manner experienced by native speakers.

CHAPTER 5 GRAMMATICAL ERRORS

This chapter presents high frequency grammatical errors identified, by first defining grammatical errors²³, then presenting descriptive statistics in regards to case particles and delimiters, verb endings and pre-final endings, and finally discussing the possible causes of the most meaningful errors of case particles. Overall, this chapter aims to (a) identify high frequency and high occurrence rate grammatical errors in Korean Heritage Language (KHL) learners' written production; (b) categorise the high frequency errors into grammatical categories and phenomena; and (c) discuss the possible causes of the main grammatical errors.

5.1 Definition of Grammatical Errors

Grammatical errors in this study have been identified based on their distortion in syntactical structure. Errors identified have been classified by grammatical category (case particles, delimiters, verb endings and pre-final endings), and then by phenomenon (omission, addition and substitution), and further analysed by type (nominative, accusative, genitive, conjunctives, final-endings etc.). Based on Corder's (1981) definition, *omission* in this study refers to a grammatical element required in its given context that is missing; *addition* refers to a grammatical element that has been incorrectly or inappropriately added; and *substitution* is a grammatical element used incorrectly in place of a correct grammatical element by context. Word order has not been included in this classification.

5.2 Results

This study has identified a total number of 3,074 grammatical errors. Out of the total number of grammatical errors, 1,742 were due to substitution (56.7%), 1,061 errors due to omission (34.5%) and 271 due to additions (8.8%). The main error types that occurred more than ten times are presented in the table below.

²³ The terms for the grammatical categories and types have been adopted from Sohn (1999) and Lee and Ramsey (2000).

Table 6 High frequency grammatical errors by type

Type	Frequency	Type	Frequency
Accusative -ul/lul	386	Goal -ey	33
Nominative -i/ka	325	Temporal sequence - ase/ese	33
Genitive -uy	292	Positive copula -i	29
Locative-static -ey	264	Plain declarative ender -(<i>i</i>) <i>ta</i>	25
Topic-contrast -un/nun	257	Dative -eykey	24
Deferential declarative ender -(s)upnita	251	Adnominaliser -nun	23
Locaitve-dynamic -eyse	112	Adnominaliser -n/un	20
Past tense suffix - ass/ess-	101	Connective -k(wa)	19
Inclusion -to	79	Simultaneity - (u)myense	18
Polite declarative ender -(e)yo	69	Nominaliser -ki	18
Directional -lo/ulo	62	Adverbaliser -i	16
Honorific suffix -(u)si-	58	Quotative -lako	14
Noun plural suffix-tul	49	Contrast -ciman	14
Cause-effect -ase/ese		Infinitive suffix -a/e	13
Conditional -(u)myen	40	Concessive -ato/eto	12
Sequentiality -ko	36	Dative -kkey	12
Comitative -(k)wa	36	Background - (n)untey	11
Nominative -kkeyse	32	Exclusion -man	11

Error occurrence rate is also an important factor in determining high difficulty items as the occurrence rate is determined by frequency, hence only high frequency items with a high occurrence rate will be discussed. The following table shows high occurrence rate items that have frequency of over 30 from the table above, with a rate of over 0.1.

Table 7 High occurrence rate grammatical errors by type

Туре	Occurrence	Occurrence Rate
Honorific nominative -kkyese	45	0.71
Dative -kkey	19	0.63
Honorific suffix -(u)si-	172	0.34
Genitive -uy	980	0.30
Adverbaliser -i	54	0.30
Locaitve-dynamic -eyse	578	0.19

Deferential declarative ender -(s)upnita	1505	0.16
Temporal sequence -ase/ese	211	0.16
Connective -k(wa)	136	0.14
Concessive -ato/eto	87	0.14
Dative -eykey	177	0.14
Nominative -i/ka	2664	0.12
Accusative -ul/lul	3374	0.11
Locative-static -ey	1851	0.11
Topic-contrast -un/nun	2348	0.11
Cause-effect -ase/ese	416	0.10
Infinitive suffix -a/e	788	0.10

The five most frequent error categories which also had a significant error rate were all in case particles, which in this study includes 'special' particles (Lee I and Ramsey, 2000) such as the delimiter topic-contrast particle -un/nun and inclusive -to. In fact, errors in case particles accounted for 62.8% of the total number of errors, which appears to be a common phenomenon amongst Korean Foreign Language (KFL) learners too (Sohn H-M, 1986; Kim EJ, 2003a; Kim Y, 2006; Bak, 2009). In the case of case particles, omission of particles was most frequent, followed by substitution with other case particles. The next most frequent group was in the substitution of final endings, the most frequent occurring in deferential-declarative and polite-declarative sentence-enders. Although sentence-enders may occasionally be interchangeable in casual speech, errors of this type in this study were based on appropriateness in a written task. Other less frequent errors were in nonsentence-final endings (conjunctive endings, nominalisers, adnominalisers) and pre-final endings. Error categories are displayed in the table below.

Table 8 Frequency of grammatical errors by category

Category	Frequency	Occurrence	Occurrence Rate
Case particles ²⁴	1,930	17,751	0.11
Pre-final endings	172	1,883	0.09
Verb endings	729	18,121	0.04

Case particles had the highest error rate overall at 0.11, followed by pre-final endings at 0.09, and then by verb endings which include final endings and non-

²⁴Delimiters such as the topic-contrast particle *-un/nun* are all included in case particles.

sentence-final endings at 0.04. In the following subsections, each grammatical error category will be presented in further detail, discussing frequency by phenomenon, error occurrence rate and some possible causes.

5.2.1 Case Particles

Case particles appear to be one of the most problematic items for second language learners. A significant difference observed is that KHL learners tend to omit case particles more often than KFL learners who tend to commit more errors in terms of substitution. Observe the table below.

Table 9 High frequency case particles by phenomenon

Туре	Omission	Substitution	Addition	Total (N=1930; %)
Accusative -ul/lul	232	134	20	386 (20.0)
Nominative -i/ka	171	144	10	325 (16.8)
Genitive -uy	90	187	15	292 (14.1)
Topic-contrast -un/nun	106	128	23	257 (13.3)
Locative-static -ey	77	96	38	211 (10.9)
Locative-dynamic -eyse	14	96	2	112 (5.8)
Inclusion -to	36	26	17	79 (4.1)
Goal -lo/ulo	5	52	5	62 (3.2)
Connective -(k)wa	6	30	0	36 (1.9)
Goal -ey	15	17	1	33 (1.7)
Nominative -kkeyse	7	25	0	32 (1.7)
Dative -eykey	3	19	2	24 (1.2)

Errors in accusative -ul/lul was the most frequent constituting for 20.0% of the total 1,930 case particles, with the omission of accusative -ul/lul (N=232) being the most frequent type, followed by substitution of genitive -uy (N=187) and omission of nominative -i/ka (N=171). The main substitutions of genitive -uy occurred with nominative -i, which partially appears to be related to phonetic similarities between the two. These will be discussed in later sections.

5.2.1.1 Omission of Case Particles

Of the total 1,061 errors in omission, 815 (76.8%) of these were in case particles. See the table below.

Туре	Frequency (N=815; %)	Occurrence	Occurrence Rate
Accusative -ul/lul	232 (28.5)	3374	0.07
Nominative -i/ka	171 (21.0)	2664	0.06
Topic-contrast -un/nun	106 (13.0)	2348	0.05
Genitive -uy	90 (11.0)	980	0.09
Locative-static -ev	77 (9.5)	1851	0.04

Table 10 High frequency case particle omission errors by type

Omission of case particles in Korean is very common in casual speech and is often omitted from a noun when it is possible to determine by word order how the nouns are related in the sentence. In written language, however, "marking noun phrases with all case particles is the rule...where not doing so would be considered a serious lapse in style." (Lee and Ramsey, 2000:141). Hence although ideally all case particles should be marked in written language, omission in this study was only marked as an error if the sentence was made ambiguous due to the omission, or was too colloquial based on the opinions of three linguists. See for example (12)-(17) below.

- (12) Pe.su.lul tha.nun tong.an chayk.ul ilk.ke.na hywu.tay.phon.u.lo kay.im (key.im) $(\sqrt{+ul})$ hay.yo.
 - 'While I am on the bus, I read a book or play a game on my mobile phone.'
- (13) Ken.kang ($\sqrt{+ul}$) wi.hay.se ce.nun (na.nun) wun.tong.ul si.cak.hayss.ta. 'I started exercising **for my health**.'
- (14) 10.hak.nyen they (ttay) su.thu.ley.su cey.may (ttay.mwun.ey) sal $(\sqrt{+i})$ manh.i ccyess.e.yo.
 - 'In Year 10 I gained a lot of weight because of stress.'
- (15) Mi.kwuk ttang.i han.kwuk ttang.po.ta te manh.a.se (nelp.e.se) cip.ul ($\sqrt{+i}$) a.cwu khu.ta.
 - 'American land is bigger than Korea so their houses are very big.'
- (16) Pyeng.wen kyel.kwa ($\sqrt{+ey}$) tta.lu.myen um.sik.lyang.i cham cwung.lye (cwung.yo) hap.ni.ta.
 - 'According to medical results, the amount you eat is very important.'
- (17) Ko.hyang.un pa.ta pa.lo yeph $(\sqrt{+ey})$ iss.e.se hoy.nun sin.sen.hap.ni.ta.
 - 'My hometown is right next to the sea so their sashimi is fresh.'

Examples (12) and (13) show the omission of accusative -ul/lul, (14) and (15) show the omission of nominative -i/ka, and examples (16) and (17) show the omission of locative-static -ey. Omission of accusative -ul/lul and nominative -i/ka are one of the most frequently committed errors in KFL learners (e.g. Ko, 2002; Shin S-C, 2006c; Bak, 2009; Kim H and Kang, 2010) and are most frequently omitted in colloquial speech, thus the results show negative transfer of speech to writing. Also, because of their tolerance in casual speech, most of the omissions were deemed acceptable. However, in cases such as (12) where the object should be emphasised, or in idiomatic expressions such as -ul/lul wi.hay.se meaning 'for...' in (13), usage of accusative -ul/lul is mandatory and thus its omission was classified as an error. Also, in cases such as (14) and (15) where nominative -i/ka is complementary to adjectives, their omission was classified erroneous although the meaning of the sentence is tolerable. Similarly for the idiomatic expression -ey tta.lu.myen meaning 'according to...' as in example (16) and for place and time nouns such as in (17), locative-static -ey is essential in these expressions. Omission of case particles is a common phenomenon for second language learners of Korean as case particles are one of the most difficult items to learn, and there appears to be various complex causes for such, including avoidance.

5.2.1.2 Substitution of Case Particles

A total of 675 substitution errors were identified in case particles, which constitutes for 69.7% of the total number of case particle errors. This section presents high frequency case particle substitution errors that have occurred over 10 times. See the table below.

Table 11 High frequency case particle substitution errors by type

Туре	Substitution	Frequency (N=675; %)
Genitive -uy	Locative-static -ey	172 (25.5)
Nominative -i/ka	Accusative -ul/lul	62 (9.2)
	Topic-contrast -un/nun	44 (6.5)
	Genitive -uy	12 (1.8)
Accusative -ul/lul	Nominative -i/ka	31 (5.0)
	Dative -lo/ulo	23 (3.4)
	Topic-contrast -un/nun	19 (2.8)
	Locative-static -ey	15 (2.2)
	Accusative -ul/lul	12 (1.8)

Topic-contrast -un/nun	Nominative -i/ka	73 (10.8)
	Accusative -ul/lul	24 (3.6)
Locative-dynamic -eyse	Locative-static -ey	79 (11.7)
Locative-static -ey	Genitive -uy	37 (5.5)
	Accusative -ul/lul	27 (4.0)
	Locative-dynamic -eyse	14 (2.1)

In terms of frequency, substitution between genitive -uy and locative-static -ey was the most frequent at 25.5% of the total number of case particle substitution errors. The majority of errors associated with genitive -uy were the substitution of genitive -uy by locative-static -ey, as in the following examples.

- (18) Ta.um ye.lum.ey han.kwuk.ey (√uy) um.sik (um.sik.ul) kong.pwu.hal.e (kong.pwu.ha.le) to.la.wal.kka (tol.a.ol.kka) hay.yo.
 - 'I am thinking of coming back next summer to study about the food of Korea.'
- (19) Cey (ce.huy) em.ma.ey (\sqrt{uy}) yo.li pi.kyel(cwung) han ka.ci te.nun myel.chi.ip.ni.ta.
 - 'Another one of my **mum's cooking tricks** is anchovy.'

These errors appear to be largely due to a phonological factor, where genitive - uy is pronounced as ey and this again shows KHL learners' tendency to heavily rely on aural cues. Although the primary cause is phonological similarity, it also reflects learners' ignorance of the functions of genitive -uy and locative-static -ey. Some sporadic errors of the substitution of locative-static -ey by genitive -uy are shown in the examples below.

- (20) Ken.kang.uy (√ey) cey.il cwung.yo.han kes.un kywu.chik.cek.in sayng.hwal.ip.ni.ta.
 - 'The most important thing **for health** is a regular lifestyle.'
- (21) Sik.kwu.tul.i pa.lo kun.che.uy (\sqrt{ey}) sal.ko iss.u.ni.kka man.na.nun ke.ka swi.wul ke.ey.yo (ke.yey.yo).
 - 'My family lives very **close by** so it will be easy to meet them.'

The next most frequent substitution was the substitution of locative-static -ey for locative-dynamic -eyse (9.3%) which is also a common error trait for KFL learners, followed by the substitution of nominative -i/ka for topic-contrast -un/nun (7.5%) and accusative -ul/lul for nominative -i/ka (6.4%). From such results, significant substitution pairs can be observed as per below.

Table 12 High frequency case particle substitution error pairs

Type	Substitution	Frequency	Total
Genitive -uy	Locative-static -ey	172	209
Locative-static -ey	Genitive -uy	37	209
Topic-contrast -un/nun	Nominative -i/ka	73	117
Nominative -i/ka	Topic-contrast -un/nun	44	11/
Locative-dynamic -eyse	Locative-static -ey	79	93
Locative-static -ey	Locative-dynamic -eyse	14	93
Accusative -ul/lul	Nominative -i/ka	73	93
Nominative -i/ka	Accusative -ul/lul	44	93
Topic-contrast -un/nun	Accusative -ul/lul	24	43
Accusative -ul/lul	Topic-contrast -un/nun	19	43

Significant substitution pairs can be observed from the table above. In terms of substitution pairs, substitution between (a) genitive -uy and locative -ey was the most frequent (31.0% or 209) out of a total of 675 errors; (b) topic-contrast -un/nun and nominative -i/ka the next most frequent at 17.3%; (c) locative -eyse and locative -ey at 13.8%; (d) accusative -ul/lul and nominative -i/ka at 13.8%; and (e) accusative -ul/lul and topic-contrast -un/nun the least frequent at 6.4% of case particle substitution errors. It is important to note here, however, that the distribution of error frequency between the two pairs is not balanced but rather show a significant difference in ratio, and only the high frequency substitutions will be discussed.

5.2.1.3 Addition of Case Particles

Addition of case particles was least frequent with a total of 153 errors, constituting for 14.4% of the total number of case particle errors, and 56.5% of addition errors. The following table presents errors of addition in case particles that have occurred over 10 times.

Table 13 High frequency case particle addition errors by type

Type	Frequency (N=39; %)
Locative-static -ey	39 (25.5)
Topic-contrast -un/nun	23 (15.0)
Accusative -ul/lul	20 (13.1)
Inclusive -to	17 (11.1)
Genitive -uy	15 (9.8)
Nominative -i/ka	10 (6.5)

Addition of case particles occurs due to learners' misunderstanding of their meaning or when they are unsure of the concept of multiple case particles. Ko (2002) notes that this is a case of 'over monitoring' which is usually observed in the addition of locative-static -ey to place or time nouns, and in the addition of nominative -i/ka or accusative -ul/lul in front of the final ending -ita. The most frequently added particle observed in this study was the locative-static -ey constituting for 25.5% of the total number of case particle addition errors. See for example (22)-(24) below.

- (22) Han.kwuk.ey.po.ta (√han.kwuk.po.ta) nal.ssi.ka te coh.a.se wu.li ko.hyang.ey ka.ko siph.sup.ni.ta.
 - 'I want to go to my hometown because the weather there is better than Korea.'
- (23) Kong.lip hak.kyo.ey.nun (√hak.kyo.nun) sa.lip hak.kyo.wa cey.to.ka co.kum tal.la.yo.
 - 'Publics schools have a slightly different system to private schools.'
- (24) E.nun.nal.ey ($\sqrt{e.nu.nal}$) um.ak.ul tut.nun.tey (tul.e.myen.se) sayng.kak.hayss.e.yo.
 - 'One day I thought while listening to music.'

Examples (22) and (23) show the case where locative-static -ey was unnecessarily used in conjunction with other particles and added to place nouns 'Korea' and 'school', and (24) shows the addition of locative-static -ey to the time noun 'one day', making it 'on one day'.

The next most frequent was the addition of topic-contrast *-un/nun* (15.0%) closely followed by accusative *-ul/lul* (13.1%).

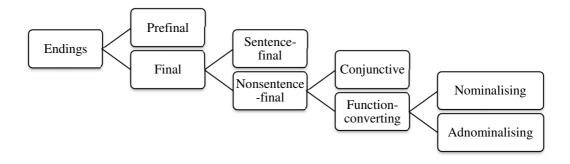
- (25) Ho.cwu.ey.se cal mek.ko sal.ki wi.hay.se.nun (√wi.hay.se) cey a.pe.ci.nun il.sik.cem.ul si.cak.hayss.e.yo.
 - 'To live well in Australia, my father started a Japanese restaurant.'
- (26) Han.kwuk.sayng.hwal.i.nun (√han.kwuk.sayng.hwal.i) ne.mwu cay.mi.iss.e.se mi.lay.ey ta.si tol.a.ol ke.ey.yo (ke.yey.yo).
 - 'Korean lifestyle is so fun so I am going to come back in the future.'
- (27) Wun.tong ttay.mwun.ey talk.ko.ki.la.tun.ka sayng.sen.ul (√sayng.sen) kath.un um.sik.ul mek.ess.ta.
 - 'I ate food like chicken and fish because of exercise.'
- (28) Os.ul ta mi.li cwum.pi (cwun.pi) hay.na.se (hay.noh.ko) ka.pang.ul (√ka.pang) an.ey noh.yo (noh.e.yo).
 - 'I prepare all the clothes in advance and **put them in** my bag.'

Example (25) shows the misuse of topic-contrast -un/nun where placing -un/nun after wi.hay.se 'for' places the focus of the sentence on ho.cwu.ey.se cal mek.ko sal.ki wi.hay.se 'to live well in Australia', but the focus of the sentence is actually on the second half the sentence, cey a.pe.ci.nun il.sik.cem.ul si.cak.hayss.e.yo 'my father started a Japanese restaurant', and hence the topic-contrast -nun is not appropriate here. Example (26) appears to be a case where the learner added the topic-contrast -nun to indicate the topic of the sentence, where the combination of nominative -i with topiccontrast -nun is erroneous. Examples (27) and (28) show the misuse of accusative particle -ul where the words sayng.sen 'fish' and ka.pang 'bag' respectively are not the objects of the sentence. Addition of case particles had a much lower frequency than that of omission, which shows a higher tendency of avoidance of case particles when learners are unsure of their usage. Both addition and omission (see section 5.2.1.1) of case particles had common high frequency items (nominative -i/ka accusative -ul/lul, locative -ey, genitive -uy and topic-contrast -un/nun) which are also the most frequently committed case particle errors are observed in KFL learners (Kim C-S and Nam, 2002; Shin S-C, 2006c; Bak, 2009; Kim J, 2009b; Kim H and Kang, 2010), which suggests a need for a deeper investigation.

5.2.2 Verb Endings

In the construction of a predicate or sentence, there exist various verb endings as in the graph below.

Figure 3 Verb Endings in Korean Sentence Constructions



In this study, a total of 729 errors in final endings have been identified, constituting 23.7% of the total number of grammatical errors. The error frequency of each category is presented in the table below.

Table 14 Error frequency of final endings by category

Category	Frequency (N=729; %)
Sentence-final endings	339 (46.5)
Conjunctives	272 (37.3)
Adnominalisers	115 (15.8)
Nominalisers	22 (3.0)

Errors in sentence-final endings were the most frequent, constituting 46.5% of the total number of final ending errors, followed by errors of conjunctives (37.3%), adnominalisers (15.8%) and nominalisers (3.0%). Based on these categories, the following subsections will present and briefly discuss the high frequency errors in final ending errors, including errors of sentence-final endings, conjunctive endings, nominalisers and adnominalisers.

5.2.2.1 Sentence-final Endings

Sentence-ender errors were identified as an error in this study if a different final ending was used to the rest of the composition, or if it was unnecessarily added or omitted. Based on Sohn H-M's (1999) classification of sentence-enders, a total of 339 sentence-ender errors were identified constituting for 11% of the total number of errors, with 275 of them being substitution and four being omission errors. Observe the table below for substitutions occurring more than ten times²⁵.

Table 15 Frequency of sentence-ender substitutions by type

Туре	Sub	Frequency
Deferential declarative(N=247)	Polite declarative	136
	Plain declarative	76
Polite declarative(N=66)	Deferential declarative	58
Plain declarative (N=25)	Deferential declarative	16

Frequency for sentence-enders corresponds to their error occurrence rate, as shown in the table below.

Table 16 Occurrence rate of sentence-ender errors by type

Type	Frequency	Occurrence	Occurrence Rate
Deferential declarative	247	1,505	0.16
Polite declarative	66	1,074	0.06
Plain declarative	25	1,322	0.02

Errors in deferential declarative enders were most frequent with the highest occurrence rate, where the substitution with polite declarative -e/ayo for deferential declarative -(s)up.ni.ta was most frequent, constituting for 37.8% of sentence-ender errors, as in examples (29) and (30) below.

- (29) Kkok ttal.a.ya (tta.la.ya) han.un (ha.nun) kywu.chik.tul.un twu kay.ka iss.tap.ni.ta. Men.ce, wun.tong.ul hay.ya ken.kang.hal swu iss.e.yo (√iss.e.yo). 'There are two rules that you must follow. First, if you exercise, **you can be healthy**.'
- (30) Han.kwuk.kwa mi.kwuk.un mwun.hwa cha.i.ka iss.up.ni.ta (iss.sup.ni.ta).Mi.kwuk.ey.se tay.hak.kyo (tay.hak.kyo.lul) ta.ni.myen ta.lun hak.nyen a.i.tul.kki.li sen.pay hwu.pay sa.i.ka eps.e.yo (√eps.sup.ni.ta).

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²⁵ Deferential declarative -(s)upnita, polite declarative -(e)yo, plain declarative -ta

'Korea and America have cultural differences. If you go to university in America, **there isn't** a junior and senior relationship between other years.'

Interchanging between deferential declarative and polite declarative in casual speech is common as both levels are mostly used to adult addressees in every context, which may account for the high frequency of the substitution between the two. Sohn H-M (1999:271) notes that while the polite level is the "informal counterpart of the deferential level", male speakers tend to intermix both levels in the same discourse with distant equals or superiors, while female speakers tend to only use the polite level. Thus interchanging between the two speech levels can be observed as a method of discourse to loosen the possibly too-formal style of the deferential declarative level. In formal writing, therefore, it is stylistically inappropriate to interchange between speech levels, hence this error was interpreted to be a result of negative transfer from speech to writing in this study, thus classified erroneous.

Substitution of deferential declarative by plain declarative was the next most frequent, constituting for 22.4% of sentence-ender errors. Unlike the substitution of polite for deferential declarative, plain declarative is usually used in writing and is not a spoken but a written language style so cannot be intermixed with the formal speech styles such as polite or deferential declarative in spoken discourse. The sporadic interchange from deferential to plain declarative can hence be interpreted as an unconscious habit of some learners who have been more exposed to, or are used to writing in plain declarative style. See examples (31)-(32).

- (31) Cey.ka han.kwuk.ey on ci 5.tal.i twayss.sup.ni.ta. Han.kwuk sayng.hwal.i ik.swuk.ha.ci.ni.kka (ik.swuk.hay.ci.ni.kka) cay.mi.kkay ci.nay.ko (cay.mi.iss.ko) mwun.hwa.wa han.kwuk.e.lul yel.sim.hi pay.wu.ko iss.ta (√iss.sup.ni.ta). 'It's been 5 months since I came to Korea. I am having fun now that I've become used to Korean culture, and am **trying very hard to learn** the culture and language.'
- (32) E.cey pon nywu.su.lo (nywu.su.ey) in.ha.myen (uy.ha.myen) um.sik cang.sa.nun cung.ka.hayss.ci.man, ku.ley.to (ku.lay.to) os.ka.key.tul.un may.chwul.i cwul.ess.ta.ko co.sa.ka(cwul.ess.ta.nun kyel.kwa.ka) na.wass.sup.ni.ta. Ho.cwu.uy payk.hwa.cem ma.i.e.wa tey.i.pi.tu con.su.nun ci.nan ka.ul phwum.mok.tul.ian phal.lye 70% hal.in.hay.se phan.ta.kohayss.ta (√hayss.sup.ni.ta).
 - 'According to the news I saw yesterday, there have been reports that food sales have increased but clothing stores have had a decrease in sales. Australia's

department stores Myer and David Jones said their Autumn stock have not been cleared so they will be selling them with a 70% discount.'

Deferential for polite declarative was less frequent with a frequency of less than half of the substitution of polite for deferential declarative, and constituting 17.1% of the total 339. As previously mentioned, deferential and polite levels are often interchanged in speech, but this usually applies when the main mode is deferential declarative where polite declarative level is intermixed to loosen the atmosphere. Interchanging from polite to deferential declarative, on the other hand, is less common in casual speech which explains the lower frequency of such errors. See for example (33)-(34).

- (33) Cey ko.hyang.un to.si.ip.ni.ta. Cey ko.hyang.ul (ko.hyang.un) nal.si.ka (nal.ssi.ka) com na.ppa.yo (√na.ppum.ni.ta).

 'My hometown is the city. The weather in my hometown is a little bad.'
- (34) Ce.uy ic.ul swu eps.nun sa.lam.un wu.li hal.me.ni.ip.ni.ta. Wu.li hal.me.ni.nun ce.uy ka.cok.ha.ko sal.ass.e.yo (√sal.ass.sup.ni.ta).

 'The person I cannot forget is my grandma. My grandma lives with my family.'

As for deferential for plain declarative substitutions, these appear to have been committed by learners who are more used to writing in deferential declarative style, possibly because the deferential declarative style is taught before the plain declarative style in most Korean language courses. These however accounted for only 4.4% of the total number of sentence-ender errors, which is not significant to be discussed in detail.

5.2.2.2 Non-sentence-final Endings: Conjunctives

One of the main reasons why KFL learners experience difficulty in conjunctives is because Korean conjunctives are much more diverse than that of the learners' L1 (Lee JH, 2002b). Another reason for such is that conjunctives have a wide range of categories, where each conjunctive within the same category is used in a specific context. Categories of conjunctives vary from study to study, but in general they are categorised by temporal sequence, simultaneity, sequentiality, contrast, choice, background, cause-effect, conditional, concessive, resultative, intentive, comparative, emphasis, figurative and suppositive (Sohn H-M, 1986; Lee I and Ramsey, 2000; Nam and Chae, 2004). The table below shows a list of the errors identified under each category.

Table 17 List of conjunctives categories

Type	Conjunctive
Temporal sequence	-ko(se), $-a/e(se)$, $-ca$, $-camaca$, $-(u)ni(kka)$
Simultaneity	-(u)mye, -(u)myense
Sequentiality	-ko, -(u)mye
Contrast	-(n)untey, -ciman, -(u)na, -taman, -teni
Choice	-kena, -tunci
Background	-(n)untey, -(u)ni
Cause-effect	-(n)untey, -a/e(se), -(u)ni(kka), -(u)mulo, -nula(ko)
Conditional	-(u)myen, -a/eya, -ketun
Concessive	-a/eto, -telato, -tunci, -kena
Resultative	-tolok, -key(kkum)
Intentive	-(u)le, $-(u)lye(ko)$
Suppositive	-tamyen

A total of 272 conjunctive errors were identified in this study with 256 substitutions and 16 omissions, making up 8.9% of the total number of grammatical errors, although not many of them had a high occurrence rate. Observe the table for high frequency items below.

Table 18 High frequency conjunctive errors by type

Туре	Frequency	Occurrence	Occurrence Rate
Cause-effect -a/e(se)	43	416	0.10
Conditional -(u)myen	35	487	0.07
Temporal -a/e(se)	33	211	0.16
Sequential -ko	24	1,474	0.02
Simultaneity -(<i>u</i>) <i>myense</i>	18	196	0.09
Contrast -ciman	13	237	0.05
Concessive -e/ato	10	87	0.11

Although 38 types of conjunctive errors were identified, the error frequency was heavily disposed towards four conjunctives: cause-effect -a/e(se), conditional -(u)myen, temporal -a/e (se) and sequential -ko which in total constituted 49.6% of the total of conjunctive errors (N=272). In terms of error rate, however, temporal -ase/ese had the highest error rate at 0.16, followed by concessive -e/ato (0.11) and cause-effect -ase/ese (0.10). Considering these two results, it appears that KHL learners do not have much difficulty with conjunctives, where the most notable errors would be cause-effect -ase/ese and temporal -ase/ese.

By phenomenon, substitution errors occupy the majority of conjunctive errors but the results are scattered and do not show a clear pattern of learners' characteristics, as shown in the table below.

Table 19 High frequency conjunctive substitution errors by type

Ту	pe	Substitution	Frequency
Causa affaat	g(ga) / g(ga)	Sequentiality -ko	15
Cause-effect	-a(se)/-e(se)	Cause-effect -nikka	7
Contrast	-ciman	Background -(n)untey	10
Tammanal	g/a(ga)	Sequentiality -ko	9
Temporal	-a/e(se)	Simultaneity -(u)mye	5
Conditional	-(u)myen	Simultaneity -(u)myense	6
Simultaneity	-(u)myense	Simultaneity -(u)mye	6

Substitution errors with a frequency of at least five from highest to lowest occurred in the following order: (a) cause-effect -a/e(se) by sequentiality -ko; (b) contrast -ciman by background -(n)untey; (c) temporal -a/e(se) by sequentiality -ko; (d) cause-effect -a/e(se) by cause-effect -nikka; (e) conditional -(u)myen by simultaneity -(u)myense and simultaneity -(u)myense by simultaneity -(u)mye; and (f) temporal -a/e(se) by simultaneity -(u)mye.

There are several significant findings. First, although the overall frequency was not high, both cause-effect -a/e(se) and temporal -a/e(se) was substituted by sequentiality -ko. This suggests that either learners are more familiar with sequentiality -ko than -a/e(se), or they are not aware of the difference between cause-effect and temporal -a/e(se). See for example see below.

- (35) Wun.tong.ul yel.sim.hi hay.ko ($\sqrt{hay.se}$) sal (sal.i) manh.i ppa.cyess.e.yo. 'I exercised a lot **and also** (\sqrt{so}) I lost a lot of weight.'
- (36) Cey chin.kwu.ca (chin.kwu.ka) te.na.ko ($\sqrt{\text{tte.na.se}}$) sup.phess.e.yo. 'My friend left **and also** ($\sqrt{\text{so}}$) I was sad.'
- (37) Cey mi.kwuk chin.kwu khol.lin.han.they cen.hwa.lul ha.ko (√hay.se) 'sayng.il chwuk.ha.hap.ni.ta' lul no.lay.hayss.ta (pwul.le.cwu.ess.ta).
 'I rang my American friend Colin and also (√and then) I sang her 'Happy Birthday'.'
- (38) I sik.tang.i mas (mas.i) manh.i iss.u.ni.kka sa.lam.tul.i manh.i o.ko (√wa.se) sey.wu.lul (say.we.lul) sa mek.up.ni.ta (mek.sup.ni.ta).

 This restaurant's food is tasty so many people come **and also** (√**and then**) eat shrimp.'

Examples (35) and (36) show an event that has occurred due to the preceding event which should be marked with the cause-effect suffix -a/e(se), but instead has been marked with sequentiality -ko which doesn't imply cause. In other words, the examples state that 'I lost a lot of weight *because* I exercised a lot' and 'I was sad *because* my friend left', which indicate the cause and effect. Examples (37)-(38) show a series of events where one event occurs after another hence temporal -a(se)/-e(se) should be used, but instead the sequentiality -ko was used which indicates a sequence of events in no particular order. Kim J-S (2002b) notes that the confusion between these two particles amongst KFL learners from English backgrounds is because they both translate to the conjunctive 'and' in English. The study recommends that conjunctives with similar meaning should be taught by comparing and contrasting them rather than as single component so that learners recognise the similar and different characteristics between the two.

Contrast *-ciman* by background *-(n)untey* is another significant substitution that shows the mismatch between similar conjunctives. Examples are as of below.

- (39) *Han.kwuk.un te.wun.tay* (√*tep.ci.man*) *a.cik.to coh.a.yo.* 'Korea is hot, **but** I still like it.'
- (40) Han.kwuk sayng.hwal.i ik.swuk.hay.cyess.nun.tey (√ik.swuk.hay.cyess.ci.man) ci.kum mi.kwuk kass.u.mywn coh.kyess.ta.

'I have gotten used to the Korean lifestyle, **but** I want to go to America now.'

Substitution of contrast -ciman and background -(n)untey may be confusing for English-L1 learners as they can both be expressed in the contrastive word 'but' in English. However a crucial difference between the two is that while the contrastive suffix -ciman is used to contrast the preceding clause in the following clause, the background suffix -(n)untey is a background information provider in two ways: (a) to provide background information in the preceding clause for the state in the following clause; or (b) to provide more information in the following clause that opposes, provides reason or a condition for the information in the preceding clause that acts as a background information provider (Jung J-D, 2003). For example, chel.swu.nun chak.ha.ci.man ko.cip.i sey.ta 'Chulsoo is nice but is stubborn' gives two contrasting information, whereas chel.swu.nun chak.han.tey ko.cip.i sey.ta 'While Chulsoo is nice, he's stubborn (too)' gives background information that Chulsoo is nice, before giving an opposing statement about him in the following clause. In both examples (39) and

(40), the latter event contrasts the former rather than providing more information, thus - *ciman* should be used.

Another significant finding is the substitution of simultaneity -(u)myense by simultaneity -(u)mye. See examples (41)-(42).

- (41) Sey.kyey.hwa.uyyeng.hyang.i (sey.kyey.hwa.ka) tung.cang.ha.mye (√tung.cang.ha.myen.se) cang.tans.cem.i sayng.ki.ko iss.ta.ko pon.ta. 'Globalisation has appeared, and coincidently (√and accordingly) I believe pros and cons are appearing.'
- (42) Kup.sok.to.lok (kip.sok.to.lo sey.kyey.hwa.ka seng.cang.ha.mye
 (√seng.cang.ha.myen.se) sayng.hwal yang.sik.i pyen.hwa.toy.ko iss.ta.
 'Globalisation has rapidly developed, and coincidently (√and accordingly) the style of living is also changing.'

In the above examples, both -(u)myense and -(u)mye indicate simultaneity and may sometimes be used interchangeably, but -(u)mye is used to indicate two discrete events that occur simultaneously, while -(u)myense indicates one event that occurs in accordance with the other. Thus when the meaning of process is intended, it indicates a relationship between event 'A' and event 'B' which is linked with simultaneity -(u)myense, where simultaneity -(u)mye disregards process. The frequency for these errors was very low, but shows confusion due to formal similarity and similar meaning.

Other conjunctive errors are sporadic or minimal thus there is no need for further investigation into such particular error substitution.

5.2.2.3 Non-sentence-final Endings: Adnominalisers

Adnominaliser errors in this study had a meaningful frequency overall, but were sporadic in individual error type, hence are worth mentioning but will briefly be discussed. In this study, 115 adnominaliser errors were identified, constituting for 3.7% of the total number of grammatical errors. Error frequency by phenomenon is listed in the table below.

Table 20 Frequency of adnominaliser errors by phenomenon

Type	Omission	Addition	Substitution	Total
Type	Omission	Addition	Substitution	(N=115; %)

Adnominaliser	Non-past -nun	9	1	44	54 (47.0)
	Past -n/un	11	0	18	39 (33.9)
	Prospective -l/ul	0	0	14	14 (12.2)
	Retrospective -ten	0	0	8	8 (7.0)

The non-past indicative *-nun* was the most frequently committed error in this category at almost half the total number of adnominaliser errors (47.0%), followed by past indicative *-n/un* (33.9%), prospective indicator *-l/ul* (12.2%), and retrospective indicator *-ten* at the lowest frequency (7.0%). The error rates for adnominaliser errors by type are shown in Table 21 below.

Table 21 Occurrence rate of adnominaliser errors by type

Type		Occurrence	Occurrence Rate
Adnominaliser	Retrospective -ten	99	0.08
	Non-past -nun	1,678	0.03
	Past -n/un	1,949	0.02
	Prospective -l/ul	801	0.02

The highest error rate occurred in the retrospective indicator *-ten* (0.08), but this only had a frequency of less than ten which is too minimal to be discussed. Non-past indicator *-nun* and past indicator *-n/un* had a low occurrence rate but have a significant frequency. However substitutions were very sporadic, and generally occurred in past indicator *-n/un* for non-past indicator *-nun* (N=16) as in examples (43) and (44), and non-past indicator *-nun* for past indicator *-n/un* (N=10) as in example (45) below.

- (43) Cey.il coh.a.han (√coh.a.ha.nun) um.sik.un han.sik.i.ey.yo. 'My **favourite** food is Korean food.'
- (44) Ka.cok.i.lang kath.i iss.un (√iss.nun) si.ka (si.kan) tung (tung.i) ta ken.kang.ey coh.sup.ni.ta.
 - 'The time you spend with your family and so on are all good for your health.'
- (45) *Han pwun.ya.ey ttwi.e.na.nun* (√*ttwi.e.nan*) *hak.sayng.tul* 'Students who are **exceptionally good** in one area'

Non-past indicator -nun can only be used with verbs, and past indicator -n/un is used with adjectives. In examples (43) and (44), both coh.a.ha.ta 'to like' and iss.ta 'to be' are verbs so should be in the form VS+nun N. On the other hand in example (45),

ttwi.e.na.ta 'to be exceptional' is an adjectival verb hence should be in the form AV+n/un N.

Other intermittent errors had a frequency of less than 5 and hence will not be further discussed.

5.2.2.4 Non-sentence-final Endings: Nominalisers

Errors in nominalisers were very sporadic, and only 22 errors were identified. The error frequency of the two nominaliser suffixes is presented in Table 22 below.

Table 22 Frequency of nominaliser errors by phenomenon

Type		Omission	Addition	Substitution	Total (N=22, %)
Nominaliser	-ki	6	0	12	18 (81.8)
	-(<i>u</i>) <i>m</i>	0	2	2	4 (18.2)

As the results indicate, the proportion of nominaliser errors from the total number of grammatical errors in the study is very small, and further, the errors of the substitution of nominaliser suffix -ki were not significant enough to be grouped into more specific categories. The occurrence rates of these types is outlined in the table below.

Table 23 Occurrence rate of nominaliser errors by type

Type		Occurrence	Occurrence Rate
Nominaliser	-(<i>u</i>) <i>m</i>	72	0.06
	-ki	534	0.04

The error occurrence rates of nominaliser suffixes are very small, and indicate that KHL learners do not have much trouble in using these derivations.

5.2.3 Pre-final Endings

Pre-final endings are tense-aspect related items including past tense suffix - ass/ess-, pluperfect suffix -ess.ess-, modal suffix -kess- and honorific suffix -(u)si-. Tense-aspect related errors were only occasional and relatively insignificant in this study and hence have not been grouped as a separate tense-aspect category. 172 pre-

final ending errors were identified, comprising 5.6% of the total number of grammatical errors in this study. Error types by phenomenon are presented in the table below.

Table 24 Frequency of prefinal endings by phenomenon

Type	Omission	Addition	Substitution	Total (N=172,%)
Past tense suffix -ass/ess-	66	35	0	101 (58.7)
Honorific suffix -(<i>u</i>) <i>si</i> -	50	8	0	58 (33.7)
Modal suffix -kess-	5	2	1	8 (4.7)
Pluperfect suffix -ess.ess-	0	1	4	5 (2.9)

High frequency error types by phenomenon are as follows: (a) omission of past tense suffix -ass/ess- (38.4%); (b) omission of honorific suffix -(u)si- (29.1%); and (c) addition of past tense suffix -ass/ess- (20.3%). Errors in past tense prefinal suffixes include past tense suffix -ass/ess- and pluperfect suffix -ess.ess-, constituting 61.6% of the total number of pre-final errors, and modal suffix -kess- constitute 4.7% which is very minimal and sporadic. Errors in tense-related pre-final suffixes show learners' inability to distinguish between past and present tense, while errors in honorific suffix - (u)si- show difficulty in interpreting the notion of honorific level. For example see (46)- (47).

- (46) Chin.chek e.lun.tul.un a.cwu khen yon.ton (yong.ton) ul cwun.ta (√cwu.sin.ta). 'My adult relatives **give** me a very large amount of pocket money.'
- (47) *Mi.kwuk.ey.se* sal.ass.ci.man wu.li (ce.huy) hal.me.ni.ka (hal.me.ni.nun) yeng.e.lul ha.na.to mos.hayss.e.yo (√mos.ha.syess.e.yo).
 - 'Although we lived in America, my grandma could not speak any English.'

In fact the error occurrence rate for honorific suffix -(u)si- was the highest (0.34 as shown in the error rate table below.

Table 25 Error occurrence rate of prefinal endings by type

Type	Occurrence	Occurrence Rate
Honorific suffix -(<i>u</i>) <i>si</i> -	172	0.34
Pluperfect suffix -ess.ess-	37	0.14
Modal suffix -kess-	91	0.09
Past tense suffix -ass/ess-	1577	0.06

Errors in pluperfect suffix *-ess.ess-* mostly occurred in the substitution by past tense suffix *-ess-*, where the main cause appears to be due to the confusion with past

tense and past perfect tense. Pluperfect suffix *-ess.ess-* can represent multiple meanings, being (a) experience, when used with 1st or 2nd person subject; (b) confirmation, when used with inanimate subjects; and (c) contrast, when used with particular time-adverbs or conjunctions. When *-ess.ess-* is broken up into two parts '*-ess*1-' and '*ess*2-', if '*-ess*1-' represents 'past' and '*-ess*2-' represents 'past', then *-ess.ess-* can represent 'the past of the past'. Also, when '*-ess*1-' represents 'completion and '*-ess*2-' represents 'past', then *-ess.ess-* will represent 'completion of a past event' (Maemura and Kim, 2017). This concept is difficult to understand for foreign language learners, and it seems to be a case that learners in this study substituted the pluperfect suffix for the more 'simple' suffix *-ess-* that also has a past-tense function'. Although this had a high occurrence rate, its frequency was very low hence is not worth noting further. Past tense suffix *-ass/ess-* had the highest frequency but had the lowest occurrence rate (0.06), possibly due to the high occurrence. For errors of omission, see examples below.

- 7.nyen.i ci.na.nun.tey.to (√ci.nass.nun.tey.to) a.cik man.nal swu iss.nun ki.hoy.ka eps.ess.sup.ni.ta.
 'Even though 7 years have pass (√passed), there still hasn't been a chance to meet.'
- (49) Ku.lim.ul manh.i po.te.ni (√po.ass.te.ni) ce.uy kwan.sim.i pa.kkas.e.yo (√pa.kkwi.ess.e.yo).

'I see ($\sqrt{\text{saw}}$) a lot of pictures, and then my interests changed.'

Examples (48) and (49) show omission of past tense suffix -ass/ess-, where the verbs *ci.na.ta* 'to pass by' and *po.ta* 'to see' are actions that have been completed hence should be past/completed tense. On the other hand, errors of addition are seen in the examples below.

- (50) Chin.kwu.han.they cen.hwa.to hayss.ko (√ha.ko) mwun.ca.lul (mwun.ca.to) po.nayss.nun.tey a.mwu tay.tap.i eps.te.la.
 - 'I gave a call and sent a message to my friend but there was no answer.'
- (51) Mayn.nal kath.i wus.ess.ko (√wus.ko) sa.lang.hayss.e.yo.

'We laughed together and loved each other every day.'

In sentences that are past tense such as examples (50) and (51), the past tense suffix *-ass/ess-* should only be used once at the end of a clause and, thus is awkward when used with the conjunctive sequential *-ko* preceding a clause in the past tense. These errors may have been influenced by English, where past actions are all marked by

past tense, unlike Korean. The notion of pre-final endings is not apparent in English, especially in honorifics, thus errors of these types appear to be of interlingual interference.

5.3 Discussion of Case Particles

This section will closely look at the main grammatical case particle substitution errors: (a) genitive -uy by locative-static -ey; (b) locative-dynamic -eyse by locative-static -ey; (c) topic-contrast -un/nun by nominative -i/ka; and (d) nominative -i/ka by accusative -ul/lul.

5.3.1 Genitive -uy by Locative-static -ey

The main and most apparent cause for the substitutions of locative-static -ey for genitive -uy is due to the identical pronunciation of the two when -uy is a case particle²⁶. Although most of the substitutions appear to have occurred due to their phonemic properties, it is necessary to categorise the different usages of genitive -uy, in case of other possible causes for this error type. The usages of genitive -uy are categorised in various ways. However, based on the definition of determiner -uy in the National Institute of Korean Language Standard Korean Dictionary (kwuk.lip.kwuk.e.won phyo.cwun.tay.sa.cen'), the error frequency of each category of genitive -uy is shown in the table below.

Table 26 Functions of genitive -uy

Category	Definition	Frequency
6	The fact or state represented by 'B' is about 'A' e.g. se.wul.uy chan.ka'an anthem of Seoul'; han.kwuk.ey ci.to 'a map of Korea'	41
1	The subject represented by 'B' is possessed by or in the category of 'A' e.g. <i>na.uy os</i> 'my clothes'; <i>wu.li.uy hak.kyo</i> 'my school'	25
13	'A' is the place of happening or existence of the object represented by 'B' e.g. mom.uy pyeng 'a disease in the body'; ha.nul.uy pyel 'a	18

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²⁶By Standard Korean Regulation Chapter 2 Number 5, the vowels ya, yay, ye, yey, wa, way, yo, wo, wey, ywu, uy are pronounced as dipthongs. However, in a syllable starting with a consonant sound, uy is pronounced i. Also, uy not in the initial syllable position may be pronounced as i, and case particle genitive uy may be pronounced as ey.

	star in the sky'	
	'A' is the possessor of the properties represented by 'B'	
9	e.g. kkoth.uy hyang.ki 'a flower's scent'; yey.swul.uy	10
	a.lum.ta.wum 'the beauty of art'	
	'A' is the main subject of the action or effect represented by	
2	'B'	8
2	e.g. ne.uy pwu.thak 'your request'; na.la.uy pal.cen 'a	O
	country's development'	
15	'A' limits the degree or quantity of 'B'	9
	e.g. 100.to.uy mwul '100 degrees water'	,
	'A' and 'B' are semantically identical	
11	e.g. kak.ha.uy ching.ho'the title of president'; co.kwuk	6
	thong.il.uy wi.ep 'the achievement of nation unification'	
16	Represents the relationship between whole and part	6
	e.g. ton.uy el.ma 'an amount of the money.'	
4	'A' is the object of the process or aim represented by 'B'	4
	e.g. sung.li.uy kil 'way to success'	
_	'A' is the object of the action represented by 'B'	
5	e.g. ca.yen.uy kwan.chal'observation of nature'; in.kwen.uy	4
	con.cwung 'respect of human rights'	
12	'B' has a social or family relationship with 'A'	3
	e.g. na.uy chin.kwu 'my friend'	
	'A' is the time of happening or existence of the object	
14	represented by 'B'	3
	e.g. ye.lum.uy pa.ta 'the sea of summer'; ceng.o.uy nywu.se	
	'the news at noon'	
3	'A' is the author or former of the object represented by 'B'	1
	e.g. ta.win.uy cin.hwa.lon 'Darwin's theory of evolution'	
17	'A' represents the characteristics of 'B'	1
	e.g. pwul.hwu.uy myeng.cak 'an immortal masterpiece'	
20	'A' represents an action that produces some result	1
	e.g. ken.sel.uy yek.sa 'the history of construction'	

^{*}Of a sentence, 'A' is the preceding substantive, 'B' is the following substantive.

The categories with the highest frequency are evident in Category 6 with a frequency of 41, followed by Category 1 with a frequency of 25, then by Category 13 occurring 18 times. Examples in Category 6 are shown below.

- (52) Cop.un ttang.ey (\sqrt{uy}) mwun.cey 'The problem **of** small land.'
- (53) Tha.ci.ma.hal.ey (\sqrt{uy}) yek.sa 'The history **of** the Taj Mahal'
- (54) Kong.pwu.ey (\sqrt{uy}) pi.kyel 'The secret **of** studying'

The genitive -uy here is used as a means of reference, and errors of this type appear to have occurred due to the lack of understanding of the usages of genitive -uy, where learners are usually most familiar with its function of 'possession'. The second most frequent category was this category, as in examples (55)-(58).

- (55) Ce.ey (\sqrt{uy}) so.pi keng.hyang '**My** propensity to consume'
- (56) *Han.kwuk.ey* (√*uy*) *so.cwung.han.mwun.hwa.cay* '**Korea's** valuable cultural assets'
- (57) Na.la.ey (\sqrt{uy}) si.min 'The **country's** citizens'
- (58) Il.pon.ey (\sqrt{uy}) nakk.si.kkwun 'The fishermen **of** Japan'

In errors of this category identified in this study, the notion of 'possession' was not as apparent as the structure 'first/second/third person pronoun-GEN noun'. Generally genitive -uy in this category is defined by 'possession', but another definition is 'affiliation' such as examples (57) and (58), which learners may not be familiar of.

The final category of high frequency was in the usage of genitive -uy that represents the place of happening or existence of an object. Examples are shown below.

- (59) Han.kwuk.ey (\sqrt{uy}) to.si 'The city **in** Korea'
- (60) Len.ten.ey (√uy) ci.ha.chel 'London's subway'
- (61) Pha.li. ey (\sqrt{uy}) ma.kheyt 'The markets **of** Paris'
- (62) Hong.khong.ey (√uy) ma.cha.o 'Macau **of** Hong Kong'
- (63) Pu.san.ey (\sqrt{uy}) pa.tas.ka 'Beaches **of** Busan'
- (64) In.chen.ey (\sqrt{uy}) se.lay.si.cang 'Se.lay markets of Incheon'

The above examples show the substitution of locative-static -ey for genitive -uy as an indicator of location. It is possible that learners have mistaken the genitive -uy for locative-static -ey in this category, as it is accompanied by a 'place noun'. In fact in most of the substitution errors of genitive -uy, there appears to be a strong tendency towards the substitution to locative-static -ey when genitive -uy is attached to a 'place

noun'. While learners primarily may have been confused by the identical sounds, there appears to be a serious lack of knowledge of the functions of both genitive -uy and locative-static -ey, which were the third and fourth most frequently committed errors respectively identified in this study. KHL learners' reliance on aural cues in their use of the genitive case thus should be able to be improved through a more thorough guidance through the different usages of the genitive -uy and its difference to the usage of the locative-static -ey when used with a 'place noun'.

5.3.2 Locative-dynamic -eyse by Locative-static -ey

The locative case particles -ey and -eyse have many different usages, which may appear complex to KFL and KHL learners as supported by the results of this study. There may be a number of reasons for such difficulty, but one of the most obvious explanations would be that both particles take on the form of a preposition such as 'at', 'in' and 'on' in English and the lack of a locative-dynamic and locative-static particle in English. Particular confusion may arise in the usages of -ey and -eyse as locative-static and locative-dynamic particles, as stative and dynamic verbs are not necessarily classified the same way in Korean and English²⁷.

Similarly to previous KFL studies (Ko, 2002; Kim J-E and Lee, 2004; Shin S-C, 2008), the substitution of locative-dynamic *-eyse* by locative-static *-ey* was most frequent amongst the locative particle errors (N=79) at more than 85% of the total number of locative particle errors.

Table 27 Substitution types of locative-static *ey* by frequency

Substitution	Frequency
Locative-static -ey	79
Goal -ey	10
Accusative -ul/lul	3
Connective -(k)wa	1
Dative -eykey	1
Genitive -uy	1
Function -lose	1

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²⁷ Stative verbs in Korean include *iss.ta* 'to be located', *swum.ta* 'to hide', *nam.ta* 'to remain', *sok.ha.ta* 'to belong (to a group)', *anc.ta* 'to sit', *se.ta* 'to stand', *ki.tay.ta* 'to lean', *nwup.ta* 'to lie down' (Hoji and Clancy, 1990:211).

The particle -ey has various usages²⁸ of which somewhat overlap with the usages of the particle -eyse²⁹. In general, the locative-dynamic particle -eyse has three main usages: (a) to mark the location of an activity; (b) to indicate certain scope or limits of an activity; and (c) to indicate the situation of a certain subject within some state (Song, 2014). The following examples that are required to mark the location of an activity show errors of locative-dynamic -eyse that have been substituted with locative-static -ey.

- (65) *Mas.i eps.i ttay.mwun.ey wu.li.nun sik.tang.ey* (√*ey.se*) *ca.cwu mek.e.yo.* 'Because it isn't tasty, we **eat at the restaurant** often.'
- (66) Cey.ka mi.kwuk.ey (√ey.se) ip.nun os.i hywung.hal.kka.pwa ccom (com) ko.min.ul hayss.e.yo.
 - 'I worried a little just in case the **clothes I wear** in America would look hideous.'
- (67) Ma.li.a.ka ce.lul chwun.chen.hay.cye.se (chwu.chen.hay.cwe.se) kha.phey.ey (\(\nabla e y.se\)) a.lu.pa.i.thu (a.lu.pa.i.thu.lul) si.cak.hayss.sup.ni.ta.
 - 'Maria recommended me so I **started doing a part-time job** at a café.'
- (68) Tay.hak.kyo.ey ($\sqrt{\text{ey.se}}$) to te.ca.ki (to.ca.ki) tong.a.il.ey tul.ess.e.yo. 'I **joined the ceramics club** even at university.'

The above examples show the substitution of locative-dynamic -eyse with locative-static -ey for a verb that denotes action, and Kim J-E and Lee (2004) note that this happens when learners do not recognise that the sentence structure is in the form 'location noun + action verb'. However, the main problem is when the dynamicity of the verb is not so apparent to the learners, where some verbs marked by the locative-dynamic -eyse may not be perceived as an 'action' verb. For example, Shin S-C (2008) observes that learners may consider verbs such as ca.ta 'to sleep' and swi.ta 'to rest' difficult to classify as an 'action' verb, and that they need to be able to recognise the transitivity of the verb as well, in order to be able to use the correct particle.

<u>Locative-static ey:</u>(a) location;(b) time;(c) direction of progress;(d) cause;(e) a subject causing some movement;(f) a subject affected by some movement or action;(g) the subject of an aim or target;(h) the subject of a means or method; (i) condition, environment, state; (j) the standard of a subject or measurement; (k) the subject of comparison; (l) a position or role taken up for; (m) with -kwan.ha.ye 'about', -uy.ha.ye 'according to', -iss.e.se 'consist in' etc. to talk about a specified subject; and (n) with the meaning of something being added.

²⁸ The National Institute of the Korean Language defines the functions of the locative-static *ey* and locative-dynamic *eyse* as to indicate the following:

<u>Locative-dynamic eyse:</u>(a) location of an activity; (b) starting point; (c) the source of something; (d) basis; (e) standards of comparison; and (f) subject, when used after a noun that indicates a group.[Translation]

Another usage of the locative-dynamic particle is to imply limit or exclusiveness, as in the examples below.

- (69) Pam.ey phwuk ca.nun kes.un sang.khway.ha.ko in.sayng.ey(√in.sayng.ey.se) cey.il cwung.yo.han kes.i.ey.yo.
 - 'Sleeping well at night is refreshing and is the most important thing in life.'
- (70) 'kye.wul yen.ka'lang (wa) kath.un tu.la.ma.ka il.pon.ey (√ey.se) in.ki.ka ceng.mal manh.i iss.ess.sup.ni.ta.
 - 'Dramas like 'Winter Sonata' were very popular in Japan.'
- (71) O.lak phu.lo.ku.laym.ul thong.hay han.kwuk.e.to pay.wu.mye han.kwuk.ey (√ey.se) ywu.hayng.ha.nun ywu.hayng.e.to al.key toyn.ta.
 - 'Through entertainment programs, one can learn Korean and also know about the **trending words in Korea**.'

The examples above indicate some exclusiveness of an action. For example, in (69) 'the most important thing' is for 'life' exclusively, and in examples (70) and (71), 'popularity' and 'trends' are limited to a certain country 'Japan' and 'Korea' respectively. Song (2014) notes that the locative-static -ey is similar to locative-dynamic -eyse in that it indicates scope, but using locative-dynamic -eyse will imply exclusiveness unlike the locative-static -ey. A notable error that shows confusion between existence and exclusiveness are those associated with the verb sal.ta 'to live', as in the examples below.

- (72) Yen.kwuk.ey (√yeng.kwuk.ey.se) han ye.lum tong.an sal.ass.ko len.ten tay.hak.kyo.ey.se swu.ep.ul ta.nyess.e.yo.
 - 'I lived in England for one summer and went to class at London university.'
- (73) Ce.nun ye.le na.la.ey (√na.la.ey.se) sal.ass.keyss.ci.man (sal.a.po.ass.ci.man) cey ma.um.ey.nun (ma.um.u.lo.nun) ce.nun han.kwuk.sa.lam.ip.ni.ta.
 - 'I've lived in many countries but I am Korean at heart.'

Both locative-static -ey and locative-dynamic -eyse can be used with the verb sal.ta 'to live', depending on the focus of the sentence. If the meaning of 'existence' is intended, then locative-static -ey is used to indicate the location of the subject's existence. If the meaning of 'living as an action' or 'exclusiveness of the location' is intended, then locative-dynamic -eyse is used. The above examples show the action of living in a particular country, and not existence, and thus locative-dynamic -eyse should be used.

Many studies (Ko, 2002; Kim J-E and Lee, 2004; Shin S-C, 2008; Bak, 2009) have identified the locative-static and locative-dynamic particle as difficult to distinguish for KFL learners, and note one of the reasons for such to be because they are both related to location. Because emphasising dynamicity does not appear to be effective for learners as there may be discrepancies in what they perceive to be 'dynamic' in English and Korean, there is a need to turn to other strategies in teaching the locative-static and locative-dynamic particles. For example, Song (2014) suggests teaching by structural rules, such as N-ey iss.ta/eps.ta 'is/is not at N' for existence and location, and N+eyse mek.ta/kong.pwu.ha.ta 'eat/study at N' for action, and further by giving examples for the two to contrast how the meaning of a sentence differs according to the particle used. One example would be existence vs. exclusiveness, where chul.swu.nun wu.li.pan.ey iss.ta 'Chulsoo is in my class' indicates Chulsoo's existence in the class, whereas chul.swu.nun wul.li pan.ey.se ka.cang ttok.ttok.ha.ta 'Chulsoo is the smartest kid in my class' indicates Chulsoo being smart in 'my class' exclusively. Another problem may be that learners are more 'used to' the locative-static -ey as it has a much more broader usage than the locative-dynamic -eyse (Shin S-C, 2008). Thus, there is a need to devote more time to the other specific usages of both locative particles, and particularly more on the locative-dynamic particle as it appears that learners are more comfortable with using the locative-static particle.

5.3.3 Topic-contrast -un/nun by Nominative -i/ka

The errors of the substitution in terms of topic-contrast -un/nun by nominative - i/ka occur with a mid-frequency at a low error rate (0.03), which was surprising as it is one of the most frequently committed errors by KFL learners (Kim C-S and Nam, 2002; Bak, 2009; Kim J, 2009b; Kim H and Kang, 2010), although not many of these studies also investigated their error rate. In particular, Kim N (2002c) identified an error rate of 0.22 for the substitution of topic-contrast -un/nun by nominative -i/ka by intermediate KFL learners, and Kim J (2009b) identified an average error rate of 0.02 for intermediate English-L1 KFL learners. This indicates while this particular error type requires attention as the frequency of this substitution error is high, it may be the case that learners with an L1 English background experience relatively lower difficulty than learners from other countries. Nevertheless, studies (Kim J, 2009b; Oh, 2011) note that

the difference between the functions of topic-contrast -un/nun and nominative -i/ka are difficult to distinguish for learners of English, and the results of many studies indicate that the error rate of the substitution between topic-contrast -un/nun and nominative - i/ka actually increases between the intermediate and advanced level (Kim H-j and Kang N-w, 2010), and thus there is a significance in investigating this particular error type at intermediate level.

In order to discuss the errors in detail, the characteristics of the two particles should be outlined. Based on previous studies (Bak, 2009; Yi, 2013), the main differences between the topic-contrast -un/nun and nominative -i/ka is that (a) nominative -i/ka is used to introduce new information whereas topic-contrast -un/nun is used when the information is already known; (b) because the nominative -i/ka possesses new information, it is used for exclusive and specific information, compared to the topic-contrast -un/nun which is used for generic purposes or in a general introduction; and (c) the nominative -i/ka places focus on the subject with a neutral meaning, whereas the topic-contrast -un/nun is used to emphasise or contrast the subject with another. However Oh (2011) states that both particles can be used for emphasis which is one of the causes of confusion between the two particles amongst learners of Korean. To summarise, the main differences between the two particles as presented in Kim C-S and Nam (2002) are listed in the table below.

Table 28 Functions of nominative -i/ka and topic-contrast -un/nun

Nominative -i/ka	Topic-contrast -un/nun
(a) Subject marker	(a) Topic marker
(b) New information	(b) Old information
(c) Wh- questions and answers	(c) General (introduction)
(d) Neutral	(d) With first person pronoun
(e) Exclusive	(e) Facts
(f) Subject of embedded sentences	(f) Within dual subject sentences in
(g) In adjective or intransitive	the form of -un/nun -i/ka without a
sentences when not implying	focus on the subject
contrast	(g) Contrast
(h) In imperative, requestive,	i. General contrast
exclamatory sentences when no	ot ii. Contrast between two things
implying contrast	
(i) Within dual subject sentences i	n
the form of -un/nun -i/ka when	
not implying contrast	

In general, the topic-contrast particle is used in three main contexts: topic, contrast and emphasis. In this study, however, errors in the topic-contrast particle - un/nun as contrast or emphasis were sporadic, and the majority of errors were associated with the particle as a topic marker. Thus errors identified in this study can be categorised into four main types: the use of topic-contrast -un/nun as (a) general introduction(N-un/nun N-ita); (b) first and second person pronouns; (c) general fact; and (d) determiners i 'this', ku 'that', ce 'that (over there).

(a) General introduction (N-un/nun N-ita)

One of the most frequent substitutions of the topic marker by nominative -i/ka was in a general introduction of new information in the form of A-un/nun B-ita 'A' is 'B'. Most commonly these include the forms P-un/nun N-ita which introduces self or others, or P-i/ka [adnominal] N-un/nun N-ita which introduces general traits about self or others. See examples below.

- (74) Kong.cwu.uy i.lum.i (\sqrt{un}) cey.in.i.ess.sup.ni.ta. 'The princess' **name** was Jane.'
- (75) Nay.ka cey.il coh.a.ha.nun sa.lam.i (√un) cey nwu.na.ip.ni.ta. 'The **person** I like the most is my older sister.'
- (76) Nay.ka cey.il coh.a.ha.nun kes.i (√un) pap mek.nun kes.ip.ni.ta. 'My favourite **thing** is eating.'

A crucial difference between the nominative -i/ka and topic marker -un/nun is that the nominative -i/ka is a case particle that marks the subject and is focused on grammatical functions, while the topic marker -un/nun is a particle that has semantic and pragmatic characteristics and thus is more focused towards semantic functions (Kim J, 2009b; Kim H and Kang, 2010). Thus, when the nominative particle -i/ka is used in a noun phrase N-i/ka P, P becomes a fixed fact and -i/ka is used to indicate the subject of the fixed fact P, whereas when in the form N-un/nun P, the topic N is fixed and the information P about N can vary according to the writer's intention (Kim M-H, 2011). In other words, N-un/nun P means 'If I were to talk about N, it is P' where P is a variable, but N-i/ka P means 'I'm talking about P, and the subject for it is N'. Thus, if the nominative -i/ka is used in place of the topic-marker in the above examples, the focus of the sentence will not be on 'the princess' name', 'the person I like the most' and 'my favourite thing', but on 'Jane', 'my older sister' and 'eating' respectively, which are not

the topics that are intended to be introduced. The confusion may arise from the English copula 'is', which is used with the subject of the sentence as in 'my favourite thing *is* eating', and Kim C-S and Nam (2002) state that noun phrases such as these in the form of N1-*un/nun* N1-*ita* 'N1 is N2' should be taught as a whole, rather than teaching the particles individually.

(b) 1st and 2nd person pronouns

Another very frequent substitution was in the use of the topic marker with first person pronouns. The following examples show the misplacement of the topic marker by nominative -i/ka with first person pronouns that do not have a specific focus on the subject.

- (77) *i.pen ye.lum.ey cey.ka* (√nun) han.kwuk.u.lo kap.ni.ta. 'This summer **I am** going to Korea.'
- (78) Ce.nyek si.kan ttay cey.ka (√nun) wu.li hal.a.pe.ci.ha.ko woy.sik.hay.yo. 'At dinner time I dine out with my grandpa.'
- (79) Chin.kwu.lul ki.ta.li.nun tong.an nay.ka (√na.nun) hayn.tu.phon.u.lo sin.mwun.to po.ko tu.la.ma.to pwass.ta.'While I was waiting for my friend, I read the news and watched dramas on my phone.'
- (80) Cwu.cwung tong.an (cwu.wung.ey.nun) cey.ka (√ce.nun) il.e.na.ca.ma.ca a.chim (a.chim.ul) mek.ko 2.ho.sen (2.ho.sen.ul) tha.yo.

 'During weekdays, I eat breakfast as soon as a wake up and catch line 2.'
- (81) A.ce.ssi.ka hwa.ka.nan hwu.ey (hwa.ka na.she.se) cey.ka (√ce.nun) ku.nyang to.mang.kass.sup.ni.ta.

 'The man got angry so I just ran away.'

Nominative -i/ka is usually not used with first and second person pronouns in explanatory sentences as -i/ka indicates exclusiveness, which requires a third party to be involved. Where the subject of the sentence is not exclusive and is not an answer to an imperative sentence, the nominative particle is not appropriate. For example, the sentence i.pen ye.lum.ey cey.kahan.kwuk.u.lo kap.ni.ta of example (77) indicates 'I (not anyone else) am the one who is going to Korea this summer', or alternatively 'I am going to Korea (not anywhere else) this summer, depending on whether the stress in intonation is on cey.ka 'I (am)' or han.kwuk.ey 'to Korea' respectively. Thus i.pen ye.lum.ey cey.kahan.kwuk.u.lo kap.ni.ta 'I am the one who is going to Korea this summer' may be the answer to the question nwu.ka i.pen ye.lum.ey han.kwuk.ey

kap.ni.kka? 'Who is the one going to Korea this summer?' or i.pen ye.lum.ey e.nu na.la.lo kap.ni.kka? 'Which country are you going to this summer?', which is only possible in a conversation. The high frequency in -un/nun substitutions in first person pronouns may account from the fact that the first person pronoun 'I' in English is a nominative pronoun and thus appears to be partially an interlingual error.

(c) General facts

One of the most frequent usages of the topic-contrast marker -un/nun is that it indicates old information. Hence, when giving a definition or a fact about a universal noun, -un/nun should be used as it assumes that the reader already knows about it. See for example below.

- (82) Sam.kyep.sal.i (\sqrt{un}) mas.i iss.u.myen.se ken.kang.ey.to coh.sup.ni.ta. 'Pork belly is tasty as well as good for your health.'
- (83) Han.pok.i (\sqrt{un}) sel.nal.ey ip.nun os.ip.ni.ta. 'Hanpok is a clothing you wear on Lunar New Years.'
- (84) Yo.cum han.kwuk sa.lam.tul.i (\sqrt{un}) heyl.su (heyl.se.ey) kwan.sim.ul (kwan.sim.i) manh.i iss.e.yo.
 - 'Korean people these days have a lot of interest in health.'
- (85) Se.wul kyo.thong.i (√tay.cwung.ko.thong.un) ssan.tey.ta.ko phyen.li.hay.se a.cwu coh.a.yo.
 - **'Seoul public transport** is very good because it is cheap and convenient.'

A main concern in teaching the topic-contrast marker -un/nun to learners of English backgrounds is that the topic-contrast marker -un/nun and the nominative marker -i/ka are difficult to differentiate by topic and subject, especially when the topic marker is sometimes used in the subject position to indicate a topic, which is almost indistinguishable from the 'neutral' nominative -i/ka (Sohn H-M, 1999:347). In the above examples, both the topic-contrast marker -un/nun and nominative -i/ka are possible, and it is difficult to say that the use of the nominative -i/ka is erroneous if it was used with the purpose of indicating new information or exclusiveness. For example, (83) with the nominative -i/ka particle would translate to 'It is han.pok that is worn on Lunar New Years', which implies exclusiveness amongst other variables. Given the context, however, the purpose of the above examples was to mention general information about the noun or noun phrase sam.kyep.sal 'pork belly', han.pok 'Korean

traditional dress', *yo.cum han.kwuk sal.lam.tul* 'Korean people these days', and *se.wul kyo.thong* 'public transport in Korea' respectively, which thus require the topic marker.

(d) Determiners i 'this', ku 'that', ce 'that (over there)'

When a determiner such as 'this' or 'that' is used, it indicates that the noun or noun phrase has already been mentioned before or that something is being introduced, and hence *-un/nun* is used.

- (86) $i \ chayk.i \ (\sqrt{un}) \ ilk.ki \ e.lye.we.se \ yeng.hwa.lo \ manh.i \ po.ass.ta.$ 'This book is too difficult to read so I watched the movie many times.'
- (87) *i.kes.i* (\sqrt{un}) *pa.lo khu.li.su.ma.su.ip.ni.ta.* 'What this is, is Christmas.'

The examples above may be acceptable if they were implying exclusiveness, to answer a question such as *e.tten chayk.i ilk.ki e.lye.we.se yeng.wa.lo po.ass.sup.ni.kka?* 'Which book was it that you saw as a movie because it was too difficult to read?' or *e.tten kes.i khu.li.su.ma.su.up.ni.kka?* 'Which is the one that is Christmas?', but not only are they awkward questions, but also the examples above are not answers to questions but are information about a topic mentioned in previous sentences. Although this type of error was not very frequent, it reflects learners' lack of understanding in the usage of the topic marker as an indicator of old information. Since it is difficult to find an English-equivalent explanation for this usage of the topic marker, it may be more efficient to rather teach these by the formula *i/ku/ce* N + *un/nun* P 'This N/That N/That N over there' is P', unless intending to give emphasis to the noun phrase such as when answering a question.

In general, the problem is that learners perceive both particles to be a subject marker, and have trouble distinguishing their use by their meagre functional differences (Kim H and Kang, 2010). A number of studies (Kim C-S and Nam, 2002; Kim H and Kang, 2010; Oh, 2011) criticise the lack of explanation of both particles in terms of current pedagogical materials, where they suggest teaching by sentence structure and emphasising their predicate relationship. In addition, the studies note that the particles should be taught within context rather than by individual functions, as most of the particle usages are differentiated by their context.

5.3.4 Nominative -i/ka by Accusative -ul/lul

Substitutions in the accusative particle -ul/lul in place of the nominative particle -i/ka had mid frequency with a low error rate. Errors of this type can be categorised by errors in verb sentences and adjective sentences. Errors associated with verbs consist of three forms of intransitive verb sentences: (a) errors in simple verb sentences consisting of a subject and a verb; (b) errors in simple sentences with a subject and a complement with the inchoative verb toy.ta or -ci.ta; and (c) errors in simple sentences consisting of experiencer-theme verbs tul.ta and na.ta(Sohn H-M, 1999:329-332).

Substitution of the nominative -i/ka for accusative -ul/lul by misinterpretation of intransitive verbs in simple intransitive sentences can be seen in the following examples.

- (88) Seng.tang.ul (\sqrt{i}) kuth.na.ko (kkuth.na.ko) pap.mek.ko ki.swuk.sa.ey tol.a.wa.yo. 'After **church** finishes, we eat and come back to the dorms.'
- (89) Chin.kwu.ka tho.yo.il.ey swuk.cey.lul (√ka) kkuth.na.nun.tay.lo ka.ca.ko hayss.e.yo.
 - 'My friend said we should go as soon as we finish our homework on Saturday.'
- (90) Hak.kyo.lul (√ka) kuth.na.nun.tay.lo (kkuth.na.ca.ma.ca) ci.swu sen.sayng.nim.kwa kath.i han.kwuk.mal.lo i.ya.ki.lul hayss.e.yo.
 'I talked with my teacher Jisoo in Korean as soon as school finished.'
- (91) I mwun.cey.lul mon.ce (men.ce) ko.chye.ya cam.ul (√i) wa.ci (o.ci) sayng.kak.hayss.e.yo.
 - 'I thought that I would only be able to **sleep** if I fix this problem first.'
- (92) Pi.hayng.ki.lul (\sqrt{ka}) pang.khok.ey to.chak.ha.ca.ma.ca kong.hang.ey.se ki.ta.lyess.e.yo.
 - 'I waited at the airport as soon as the **plane** landed in Bangkok.'

Errors of this type occur when the learner is not aware of the intransitivity of the verb, or when they are confused by the similarity of form between the corresponding transitive verb as in examples (88)-(90), where the intransitive form -i/ka kkuth.na.ta 'sth is finished' is similar to the transitive form -ul/lul kkuth.nay.ta 'sb finishes (sth)'. Example (91) would require an accusative particle if it was the object of a cognate verb (cam.ul ca.ta 'sleep a sleep'), of which its intransitivity may be ambiguous to learners of English. The verb to.chak.ha.ta 'to arrive' in example (92) is also intransitive and hence cannot take a direct object, and thus cannot be used with the accusative particle.

The second group of substitutions in verb sentences consists of errors related to the inchoative verb *toy.ta* 'to become' or *-a/e.ci.ta* 'to get', as in the examples below.

- (93) Wu.li.nun coh.un chin.kwu.lul (\sqrt{ka}) tway.ess.e.yo (toy.ess.e.yo). 'We became **good friends**.'
- (94) Han.kwuk.ey.se sa.la.se (sal.a.se) han.sik.ul (\sqrt{i}) coh.a.cyess.e.yo. 'I came to like **Korean food** because I live in Korea.'
- (95) Phi.a.no.lul chi.myen.se um.ak.kwa no.lay.ul (\sqrt{ka}) coh.a.cin kes kath.sup.ni.ta. 'I think I came to like **music and songs** while playing the piano.'
- (96) Cwung.ko.tung.hak.kyo.na tay.hak.kyo ip.hak.ul (√i) te e.lye.we.cess.ta.ko
 (e.lye.we.cyess.ta.ko) hal swu iss.sup.ni.ta.
 'I can say that the high school or university entrance exams have become

more difficult.'

When -toy.ta or -a/e.ci.ta is added to a transitive verb, it becomes an intransitive verb and thus should be used with the nominative particle. Errors of this type appear to have occurred due to their unawareness of the grammatical structure of inchoative verb sentences, and this is something to be pointed out in the classroom. Pak (2007) particularly notes that the nominative particle should be taught in the form of 'noun + i/ka toy.ta', and this should be the same for -a/e.ci.ta which should be taught in the form 'noun + i/ka AVS+-a/e.ci.ta'.

Another type of accusative for nominative substitution in verb sentences are experience-theme sentences which consist of two nominative cases, one associated with the 'experiencer' of the theme and the other associated with the verbs *tul.ta* and *na.ta*. See (97)-(99) below.

- (97) I sayng.kak.ul (\sqrt{i}) tul.ko ko.tung.hak.kyo.pwu.the um.ak.ul man.tul.ess.e.yo. 'After I got this **thought**, I started making music from senior school.'
- (98) Tho.long.tho.ey kal ttay.nun phyen.li.han kyo.thong.kwa um.sik pay.tal.ul (√i) kkok sayng.kak.nal ke.yey.yo.'When I go to Toronto, I will remember the convenient transport and food delivery.'
- (99) Naym.sey.lul (\sqrt{ka}) ne.mwu na.yo. 'It smells very bad.'

Similarly to the verbs -toy.ta and -a/e.ci.ta, the verbs tul.ta and na.ta may not appear as intransitive 'verbs' to learners as these verbs represent some 'state' and not an 'action'. Furthermore, the verbs such as 'to smell' can be both transitive and intransitive in English without a change of form, such as naym.say.ka na.ta '(it) smells' and naym.say.lul math.ta 'to smell (sth)', which may add to the confusion in distinguishing between transitive and intransitive verbs for English-L1 learners.

Many textbooks cease at outlining 'object + ul/lul' and 'subject + i/ka', with some noting 'transitive verb + ul/lul' and 'intransitive verb + i/ka' constructions, and do not provide a break-down analysis of their usage (Kim J-E, 2015). Accusative and nominative case particle constructions need to be taught with a focus on such extensive concepts with an explanation of their functions within a sentence, rather than as a mutually exclusive component as a verb-particle construction.

The majority of the substitutions related to adjectival verbs occurred when it was used preceding the locational adjectival verbs *iss.ta* 'there exists'/ 'to have' and *eps.ta* 'there is not' / 'do not have' when it was used as a means of possession, and also the existential adjectival verb *manh.ta* 'there are many' as a means of possession as well, as in the examples below.

- (100) Han.kwuk.sa.lam.ul (\sqrt{i}) si.kha.ko.ey manh.i eps.e.se en.cey.tun.ci han.kwuk sa.lam.ul man.a.myen (man.na.myen) cal in.sa.ha.ko ppa.li (ppal.li) chin.ey.yo (chin.hay.cye.yo).
 - 'There aren't many **Korean people** in Chicago so whenever we meet a Korean person, we greet them well and become close quickly.'
- (101) Chwul.tay.kun (chwul.thoy.kun) si.kan.ey ca.li.lul (\sqrt{ka}) eps.sup.ni.ta) 'There aren't any **seats** during peak time.'
- (102) Cey (cey.ka) coh.a.han (coh.a.ha.nun) sik.tang.ul (\sqrt{i}) manh.a.se chin.kwu.lul (chin.kwu.lang) ca.cwu ka.yo.
 - 'There are many **restaurants** that I like so I go with my friends often.'
- (103) Pan.tay (pan.tay.toy.nun) kes.ul (\sqrt{i}) manh.i iss.ci.man wu.li.nun coh.un chin.kwu.lul (ka) tway.ess.e.yo.
 - 'We have a lot of **differences** but we became good friends.'
- (104) Yo.cum.ey han.kwuk sa.lam.tul.i heyl.su (heyl.su.ey) kwan.sim.ul (\sqrt{i}) manh.i iss.e.yo.
 - 'Korean people these days are very interested in health.'
- (105) Cip.ey (cip.ey.se) na.ka.ta.ka (na.kass.ta.ka) ppal.li ey.e.khon.ul (\sqrt{i}) iss.nun kos.ey tul.e.kass.e.yo.
 - 'I went out of the house but soon went quickly into a place with air-conditioning.'

In the case of (100)-(102), *iss.ta*, *eps.ta* and *manh.ta* indicate existence and so the preceding nouns function as the subject and thus require the nominative *-i/ka*. In examples (103)-(105), however, the adjectival verbs *iss.ta*, *eps.ta* and *manh.ta* indicate possession of the preceding nouns, where the subject functions as an object with the nominative particle (Sohn H-M, 1999: 284). In English, however, 'have' requires an object, which appears to be one of the main reasons for the high frequency in this type

of error. A number of other studies (Kim J-E and Lee, 2004; Shin S-C, 2006c) on the grammatical errors of KFL learners have also noted this type as one of the main subcategories which thus shows the need to focus on this particular form when instructing nominative particles. In particular, Pak (2007) notes that the nominative -i/ka should be taught as particle connected to certain predicates that indicate possession like -i/ka iss.ta '(sb) have/has', -i/ka eps.ta '(sb) do/does not have', -i/ka phil.yo.ha.ta '(sb) need(s)', -i/ka manh.ta '(sb) have/has many' and so on.

Another frequent subcategory of errors in the substitution of accusative for nominative particles was in sentences with descriptive adjectival verbs, as listed below.

- (106) Il.ccik ca.ko il.ccik il.e.na.nun sup.kwan.ul (\sqrt{i}) coh.a.yo. 'The **habit** of sleeping early and waking up early is good.'
- (107) Ta.lun sa.lam.kwa pwu.ti.chi.ke.tun (pwu.tic.chi.ke.tun) cam.kkan mi.an.han.ta.nun (mi.an.ha.ta.ko ha.nun) kes.ul (\sqrt{i}) cey.il coh.ta. 'If you ever bump into someone, it's good to **say sorry**.'
- (108) Thuk.hi ey.phul hoy.sa.ey (hoy.sa.ey.se) na.on a.i.mayk.ul (\sqrt{i}) coh.a.yo. 'In particular, the **iMac** from Apple is good.'
- (109) Pe.su.po.ta ci.ha.chel.ul (\sqrt{i}) tte (te) phyen.hay.yo 'The **subway** is more convenient than buses.'
- (110) Cey ko.hyang.ey.se hoy.lul (\sqrt{ka}) ywu.myeng.hay.yo. 'Sashimi is famous in my hometown.'

A notable error was the substitution associated with the adjectival verb 'coh.ta' as in examples (106)-(108). In the case where the adjectival verb is sensory and indicates 'to like', it may follow either the form -i/ka coh.ta 'A is good (for B)' / 'B likes A' or -ul/lul coh.a.ha.ta 'C like(s) D', but in this case it is descriptive and means 'to be good', which follows the form -i/ka coh.ta. Examples (109) and (110) are also examples of the use of accusative -ul/lul with the adjectival verb phyen.ha.ta 'to be convenient' and ywu.myeng.ha.ta 'to be famous' which are both intransitive, and thus require the nominative -i/ka. As Sohn H-M (1999:283) notes, descriptive adjectival verbs are intransitive, and thus it is essential that learners can differentiate descriptive adjectival verbs from others, and also should be aware that they require the nominative particle.

Errors consisting of sensory adjectival verbs and the 'necessity' verbs were very minor and were seen in the following examples.

(111) Ha.wa.i.lul (\sqrt{ka}) manh.i ku.li.we.yo.

- 'I miss Hawaii very much.'
- (112) Ce.nun kong.pwu.ha.nun kes.ul (\sqrt{i}) ne.mwu cay.mi.iss.e.yo. 'I find **studying** very interesting.'
- (113) Cey.ka hal.me.ni.lul (\sqrt{ka}) po.ko siph.ess.nun.teypwu.mo.ka (pwu.mo.nim.i) an.toyn.ta.ko hayss.e.yo.
 - 'I wanted to see my grandma but my parents said no.'
- (114) Ye.le.ka.ci cey.so (chay.so) ul (\sqrt{ka}) phil.yo.hay.yo. 'Various **vegetables** are needed.'
- (115) Ku.lay.se coh.un khem.phywu.the.lul (\sqrt{ka}) phil.lye.hay.yo (phil.yo.hay.yo). 'So I need a good **computer**.'

Sensory adjectival verbs indicate some emotion or sensation and are transitive, intransitive or both (Sohn H-M, 1999:285) which may cause confusion for learners who may interpret the complement nouns as objects instead of subjects. For example, *ku.lip.ta* 'to miss (sb or sth)' from example (111) and *cay.mi.iss.ta* in example (112) is intransitive. In the case of example (113), *-ko siph.ta* 'wish to' is a "special transitive sensory adjective" (Sohn H-M, 1999:285) which should be used with a nominative case, which is particularly confusing for learners as they would see the complement as an object which is usually used with the accusative case. Examples (114) and (115) are a subset of locational adjective sentences that denote possession, and these show necessity (*phil.yo.ha.ta* 'to need') which doesn't require an object and hence should be in the nominative case.

5.4 Summary

This chapter has identified grammatical errors, analysed and categorised the type of errors, and discussed the possible causes of high occurrence and high frequency grammatical errors by intermediate KHL learners. A total number of 3,074 grammatical errors were identified, which were analysed by case particles, verb endings and pre-final endings. From a frequency analysis, case particles constituted the majority of these errors at 62.8%, followed by verb endings at 23.7% and pre-final endings at 5.6%. Amongst case particle errors, omission was the most frequent category by phonemonon, followed by substitution of case particles, which has been observed as a different characteristic to KFL learners who usually commit more substitution errors in case particles.

Omission in accusative *-ul/lul* was the most frequent error of omission in this group, which is a commonly omitted particle in casual speech for both native and KFL learners. In substitution errors, locative *-ey* for genitive *-uy* was the most frequent at 17.8%, followed by particle *-ey* for locative *-eyse* (11.7%), nominative *-i/ka* for topic-contrast *-un/nun* (10.8%) and accusative *-ul/lul* for nominative *-i/ka* (9.1%). Amongst case particle addition errors, the most frequent addition was locative-static *-ey* (25.5%), followed by topic-contrast *-un/nun* (15.0%) and accusative *-ul/lul* (13.7%).

There are several possible causes for the case particles identified in this study. First, the main cause for the substitution of genitive -uy by locative-static -ey appears to be due to negative transfer from speech where their pronunciation is identical in everyday use, and also learners' lack of understanding of the possessive function of genitive -uy. Second, the confusion between locative-static -ey and locative-dynamic -eyse appears to have arisen from the difference in 'dynamicity' between English and Korean, and ambiguity in their distinction with certain verbs such as salta 'to live'. Furthermore, the broader usage of locative-static -ey may be an attributing factor. Third, the substitution of topic-contrast -un/nun by nominative -i/ka shows to be due to the complexity of the two particles, where their complex functions are not usually outlined in class or by textbooks. Many of the errors occurred due to difficulties in distinguishing between topic and subject, and lack of case particles in English. Fourth, nominative -i/ka by accusative -ul/lul mainly occurred due to the misinterpretation of transitive and intransitive sentences, especially with inchoative, experience-theme and adjective sentences.

In errors of verb endings, of the 729 errors identified, 46.5% of them were sentence-final endings, followed by conjunctive errors at 37.3%. In sentence-final endings, the substitution of deferential declarative by polite declarative were most frequent, followed by the substitution of deferential declarative by plain declarative. These appear to have mainly occurred due to negative transfer from speech to writing, where interchanging between deferential and polite declarative endings is common in casual speech. Substitution by plain declarative, however, is not usual and cannot be interchanged with each other neither in speech or writing, and appears to have occurred due to learners' unconscious habit of writing in plain declarative style. Other sporadic substitutions include polite declarative for deferential declarative, and plain declarative for deferential declarative.

Conjunctive errors were minimal, and although 38 types of conjunctive errors were identified, they were quite sporadic and most of them were not meaningful. The majority of conjunctive errors were substitution errors (94.1%), and of these errors, the most frequent error was the substitution of cause-effect -a(se) /-e(se) by sequentiality - ko occurring only 15 times, followed by contrast - ciman by background -(n)untey. The main cause of these errors appears to be due to the similar meanings between the substituted conjunctives.

Adnominaliser errors were scattered but had a meaningful frequency overall. The substitution of non-past -nun was the most frequently committed error (47.0%) of adnominaliser errors, but generally occurred with past indicator -n/un and were quite sporadic. Nominaliser errors were the least frequent with only 22 errors identified, including the suffixes -ki and -(u)m. These were not further discussed.

172 errors were identified in pre-final endings, including past tense suffix -ass/ess- (58.7%), honorific suffix -(u)si- (33.7%), modal suffix -kess- (4.7%) and pluperfect suffix -ess.ess- (2.9%). Omission of past tense suffix -ass/ess- was the most frequent, followed by omission of honorific suffix -(u)si- and addition of past tense suffix -ass/ess-. One of the main causes of these errors appear to be due to interlingual interference, where pre-final endings are not apparent in English. Other pre-final ending errors were sporadic and not meaningful. Overall, KHL learners show similar difficulties to KFL learners in distinguishing between the functions of case particles, but differ in that they do not experience much difficulty in other aspects of grammar such as conjunctives, adnominalisers, nominalisers and pre-final endings. In addition, there is a general tendency to be affected by negative phonological and colloquial transfer from speech to writing, especially in case particles. There is a need to review the presentation of such problematic particles in textbooks, and moreover develop learning and teaching materials exclusively for learners of English backgrounds.

CHAPTER 6 LEXICAL ERRORS

This chapter presents the high frequency lexical errors identified in this study. The chapter first defines the meaning of a lexical error used to identify errors in this chapter, then presents descriptive statistical results of the high frequency lexical errors identified, followed by a detailed discussion of the specific error categories including errors of redundancy, simplification, semantic similarity, inappropriate honorifics, overgeneralisation, formal similarity, collocation and idiomatic, literal translation, code switching, paraphrase and word coinage. The discussion section also presents some main causes for those errors.

6.1 Definition of Lexical Errors

The term 'lexical error' is not clearly defined and may be referred to as various definitions in different studies. In this study, lexical errors indicate a distortion in the semantic properties of a word or phrase that is regarded as unacceptable in the given context. The errors thus exclude any formality issues such as misspellings that have not affected the meaning of the word, and any grammatical errors as defined previously in this study. In the case where an expression consisting of multiple words was erroneous or word order was an issue, each lexical item affected have been included as an individual error.

Unlike orthographic or grammatical errors, lexical errors do not have a specified set of error categories and rather depend highly on the nature of the data. For Korean in particular, as it remains to be a largely unexplored language in terms of semantic lexical errors, there is not a fixed set of categories that illustrate the general picture of lexical difficulties of a Korean Heritage Language (KHL) learner. This study, therefore, adopts various categorisations based on previous lexical EA studies (Wang H-S, 1995; James, 1998; Shin S-C, 2002; Kang M and Chang, 2014) to suit the nature of the errors identified from the data of this study. In addition, the error identification and categorisation has been processed over three stages: initial analysis by the researcher; checked by an experienced tertiary instructor; and confirmed by a Korean linguist, in order to minimise the problem of subjectivity in identifying categorising the errors.

6.2 Results

The study has identified 1,368 lexical errors based on 11 categories. Lexical error categories were adopted from a number of studies (Wang H-S, 1995; Shin S-C, 2002; Kang M and Chang, 2014:98), based on their relevance to the errors identified in this study. The categories are shown in the table below, where more detailed explanations are provided in the Discussion Section (Section 6.3).

Table 29 Lexical error categories

Type	Description	
Semantic similarity	The use of a wrong lexical item that has similar	
	meaning or is in the same semantic category to a	
	lexical item that should be used.	
Formal similarity	The use of a wrong lexical item that has similar	
	formal features to the intended word. The replaced	
	word should be an existent word with a different	
	meaning to the correct word.	
Collocation or idiomaticity	Wrong choice of a word in a collocative or idiomatic	
	expression.	
Inappropriate honorifics	Misuse or negligence of honorifics.	
Code switching	Switching between the L1 and L2 by replacing a	
	word with same or similar meaning in the L1.	
Literal translation	Using expressions that are non-existent or awkward	
	in the L2 by literally translating them from the L1.	
Overgeneralisation	When a 'basic' lexical item learnt in earlier stages is	
	overly applied to a word with a specific meaning.	
	These may be in the same word class or category,	
	but cannot be interchanged as it creates a	
	meaningless or illogical lexical item.	
Simplification	The omission or simplification of essential parts of a	
	word or phrase that are required to make the word	
	sentence complete.	
Redundancy	The addition or repetition of a word with a same or	
	associated meaning to the preceding word or phrase.	
Paraphrase/circumlocution	An unnecessarily long explanation of a lexical item	
	that cannot be retrieved.	
Word Coinage	When two or more lexical items have been	
	combined to make a new word non-existent in the	
	L2.	

The frequency of errors by specific categories is shown in the table below:

Table 30 Frequency of lexical errors by category

Type	Frequency (%)
Redundancy	371 (27.1)
Simplification	291 (21.3)
Semantic similarity	181 (13.2)
Inappropriate honorifics	141 (10.3)
Overgeneralisation	132 (9.6)
Formal similarity	85 (6.2)
Collocation or idiomatic	84 (6.1)
Literal translation	36 (2.6)
Code switching	32 (2.3)
Paraphrase	8 (0.6)
Word coinage	7 (0.5)

The study identified errors of redundancy (27.1%) as the most frequent error type, which is a similar result to Shin S-C and Joo's (2015) study, which identified errors of redundancy as one of the high frequency errors of Australian KHL learners. This differs from previous studies on Korean Foreign Language (KFL) learners' lexical errors (Shin S-C, 2002; Kang M and Chang, 2014) which didn't identify redundancy as a frequent error category. Errors of simplification are the next frequent category identified in this study, constituting 21.3% of the total. In mid-frequency, errors of semantic similarity (13.2%), inappropriate honorifics (10.3%), overgeneralisation (9.6%), formal similarity (6.2%) and collocation or idiomatic (6.1%) were identified. The remaining categories were sporadic and of low-frequency less than 5%, including literal translation (2.6%), code switching (2.3%), paraphrasing (0.6%) and word coinage (0.5%).

6.3 Discussion

6.3.1 Redundancy

Errors of redundancy are the highest lexical error category, which occurred due to the unnecessary repetition of a lexical item which is perceived as unusual. There are three types of redundancy errors identified in this study: (a) errors due to repetition of a lexical item; (b) errors due to the addition of a lexical item with a same meaning; and (c)

errors due to addition of an unnecessary word that is either implied by the preceding lexical item or contextually irrelevant.

- (a) The first set of errors due to redundancy are those due to the repetition of a same lexical item, as listed in the examples below:
- (116) Ce.nun i.pen (i.pen.ey) han.kwuk (han.kwuk.ey) o.ki cen.ey 3.nyen.cen.ey wass.ess.se.yo (wass.ess.e.yo). (√ce.nun 3.nyen cen.ey han.kwuk.ey wass.ess.e.yo.)

 'Before I came to Korea this time I came 3 years ago.(√I came to Korea 3 years ago.)'
- (117) To.so.kwan.ey (to.se.kwan.ey.se) pam.ssay.ko (pam.say.ko) yel.sim.hi kong.pwu.hayss.ten kong.pwu (√kes.i) sayng.kak.na.yo.
 'I remember the study (√things) I studied hard while staying up the night in the library.'
- (118) Hywu.tay.cen.hwa.ey tay.hay.se cey hywu.tay.cen.wa.ka cey.il cak.a.yo.(√cey hywu.tay.cen.wa.ka cey.il cak.a.yo)'About my mobile phone, my mobile phone is the smallest.(√My mobile phone is the smallest.)'
- Manh.un ywu.hak.sayng.tul.i ho.cwu.ey (ho.cwu.uy) pam mwun.hwa.ka han.kwuk.ey pi.ha.myen ye.ki ho.cwu.nun a.mwu.kes.to a.ni.ta.ko (a.ni.la.ko) hap.ni.ta.(√Manh.un ywu.hak.sayng.tul.i ho.cwu.uypam mwun.hwa.ka han.kwuk.ey pi.ha.myen a.mwu.kes.to a.ni.la.kohap.ni.ta.)

 'Many international students say the night life of Australia is, compared to Korea, here in Australia is nothing.(√Many international students say the night of Australia is nothing compared to Korea.)'
- (120) E.lun.i sik.sa.ha.ki cen.ey.nun a.lays.sa.lam.tul.un e.lun.i sik.sa.ha.ki cen.kka.ci ki.ta.lip.ni.ta. (√a.lays.sa.lam.tul.un e.lun.i sik.sa.ha.ki cen.kka.ci ki.ta.lip.ni.ta.) 'Before an adult starts eating, the juniors wait until the adult starts eating.(√The juniors wait until the adult starts eating.)'

There appear to be various reasons for such errors. The first is that learners might have interpreted and used a word for multiple meanings. For example, in the case of (116), the learner used the first *cen* as 'before', and the second *cen* as 'ago'. In example (117), the first *kong.pwu* 'study' has been interpreted as a verb, and the second *kong.pwu* as a noun as in 'studies'. Second, it appears that learners used a repetition strategy to emphasise what they were explaining. For the example in (118), the learner emphasised the topic 'mobile phone' by writing 'to talk about my mobile phone, my mobile phone is the smallest', while in (119) the emphasised topic is 'the night life of Australia', which has been expressed by writing 'the night life of Australia is, compared

to Korea, here in Australia is nothing'. These may seem acceptable but they are unnecessary repetitions that leave the readers confused and thus classified erroneous. Third, some errors appear to have occurred due to learners' lack of ability to be concise, as in example (120). These again are grammatically and semantically correct, but are not what is considered as 'usual' or 'natural' pragmatically.

- (b) Errors due to the addition of a lexical item with a same meaning are words with an unnecessarily added lexical element, such as a common noun, dependent noun or suffix that have the same meaning as the preceding lexical item. See for example below:
- Yak.so.kwuk na.la.wa (√yak.so.kwuk.kwa) kang.tay.kwuk na.la.tul.i (√kang.tay.kwuk.tul.i) tong.mayng.ul mayc.e te.wuk.te pal.cen.hal swu iss.nun ki.hoy.lul cwun.ta.
 - 'When weak nation countries ($\sqrt{\text{weak nations}}$) and strong nation countries ($\sqrt{\text{strong nations}}$) form an alliance, it gives them an opportunity to advance more and more.'
- (122) Sim.ya.cok.in (√sim.ya.cok) tul.ey.key.nun te.wuk phen.ha.ko ye.ywu.lo.wun salm.i yel.lyess.ta.
 'Now there is a more convenient and free lifestyle for nightlife group people (√nightlife groups).'
- (123) Cwu.cwung tong.an (√cwu.cwung.ey) cey.ka (ce.nun) il.e.na.ca.ma.ca a.chim mek.ko 2.ho.sen tha.yo.
 'During during weekdays (√during weekdays) I eat breakfast as soon as I get up and catch the line 2.'
- Na.cwung.ey cey.ka pong.sa tong.a.li.ey tul.i.ko (tul.ko) no.in.sa.lam (√no.in) tul.i.lang in.the.pywu.lul hayss.e.yo.
 'Later I subscribed to the volunteering club and interviewed the elderly people (√the elderly).'
- (125) A.chim il.ccik il.e.na.ko.se a.chim um.sik ($\sqrt{a.chim}$) ul mek.ko pa.lo na.ka.yo. 'I get up in the morning and have **breakfast food** ($\sqrt{breakfast}$) and go straight out.'
- (126) In.kan han sa.lam (\sqrt{han.sa.lam}) I el.ma.na cak.un con.cay.i.ci (con.cay.in.ci) nu.kkil swu iss.nun si.kan.ul ka.cil swu iss.ta.
 - 'You can have a moment of time to reflect on how small **one person of human** ($\sqrt{\text{one person}}$) is.'

Examples (121) and (122) show the addition of a suffix, where *kwuk* and *na.la* both mean 'country', and *in* and *cok* both imply 'people'. Example (123) on the other hand, shows the addition of a noun to a suffix, where *cwung* and *tong.an* both imply 'duration'. These appear to have occurred due to insufficient knowledge of the repeated

lexical items. Examples (124)-(126) show repetition of a word with its meaning already implied by a preceding word, such as *sa.lam* 'person' and *no.in* 'elderly', *um.sik* 'food' and *a.chim* 'breakfast', and *sa.lam* 'person' and *in.kan* 'human' respectively. Such errors mainly occur due to the lack of understanding of the word groups with similar or implied meanings.

- (c) The last set of errors are those due to the unnecessary addition of a word that is either implied within the preceding lexical item or contextually irrelevant, as in examples (127)-(129). These errors are different to those of (b) in that the added part does not have the same meaning as the preceding lexical item, but is implied within the sentence and thus repetitive and unnecessary. Observe the following:
- (127) Ce.nun wen.lay yey.swul.kes (\sqrt{yey} .swul) ey kwan.sim.i iss.nun phyen.ip.ni.ta. 'I've always been rather interested in **arts things** (\sqrt{arts}).'
- Wel.lay (wen.lay) e.lun han.kwuk sa.lam.tul.un (√han.kwuk sa.lam.tul.un) ta phi.a.no.lul han pen (han.pen.ssik.un) chye.yo (chye.pwa.yo).

 'Adult Korean people (√Korean people) all play the piano at least once.'
- (129) Nay.ka coh.a.ha.nun phan.so.li.nun (phan.so.li.ka) pwun.a (pwun.ya) ka co.kum te se.kyey.in.i (se.kyey.in.uy) ma.um.sok.ey a.lum.ta.wun mwun.hwa.lo ca.li.cap.ul swu iss.ki.lul pa.lan.ta. (√Nay.ka coh.a.ha.nun phan.so.li.ka co.kum te se.kyey.in.uy ma.um.sok.ey a.lum.ta.wun mwun.hwa.lo ca.li.cap.ul swu iss.ki.lul pa.lan.ta.)

'I hope with *phan.so.li* that I like, that the area of music will take place in people's hearts worldwide a bit more as a beautiful culture. (\sqrt{I} hope that my favourite *phan.so.li* will take place in people's hearts worldwide a bit more as a beautiful culture.)'

The words *kes* 'thing' and *e.lun* 'adult' in examples (127) and (128) are implied within the preceding words *yey.swul* 'art' and *han.kwuk sa.lam.tul* 'Korean people' respectively. In example (129), *phan.so.li* '*phan.so.li* music' is a *pwun.ya* 'area' and thus such implied words do not need to be mentioned in such a sentence. There appear to be several reasons why learners commit redundancy errors, where learners may simply be unaware of words in similar categories, or are unsure of the lexical item they are using which causes them to paraphrase and be repetitive.

6.3.2 Simplification

Errors of simplification consist of words or sentences with a missing lexical item. Errors in this category formed three groups: (a) omission of a counter;(b) omission of a word; and (c) omission of a phrase.

- (a) Simplification due to the omission of a counter can be seen in the following examples:
- (130) Myes (myech) ($\sqrt{+ka.ci}$) pi.kyel 'A few($\sqrt{+kinds of}$) tricks'
- (131) $50 (\sqrt{+kay}) kwuk.ka$ '50($\sqrt{+counts of}$) countries'
- (132) Swu.payk.ma (swu.payk.man) ($\sqrt{+myeng}$) uy nam.a.phu.li.kha a.i.lul (a.i.tul) 'Millions of($\sqrt{+people of}$) South African children'
- (133) $34 \ (\sqrt{+pen.ccay}) \ lo \ coh.un \ tay.hak$ 'The $34rd(\sqrt{+number \ of})$ best universities'
- (134) Ce.nun 2004 ($\sqrt{+nyen}$) ey ha.wa.i.lo i.sa.lul kass.e.yo. 'I moved to Hawaii in($\sqrt{+year}$) 2004.'
- (135) *O.hwu* 6-7 $(\sqrt{+si})$ '6-7 $(\sqrt{+o'clock})$ *p.m.*'
- (136) Kyo.thong ($\sqrt{+pi}$) nun ki.pon.cek.u.lo so.pi.ka toyp.ni.ta(so.pi.lul hap.ni.ta). 'Public transport($\sqrt{+fees}$) is one of the basic consumptions.'

These errors show the omission of counters *kaci* 'kinds', *kay* 'things', *myeng* 'people' in examples (130)-(132) respectively, omission of *pen* 'number' with the native ordinaliser *ccay* as in example (133), omission the counter *nyen* 'year' in example (134), *si* 'o'clock' in example (135), and *pi* 'fee' in example (136). There appears to be strong influence from English in these errors, as counters are usually omitted in English, such as 'few tricks', '50 countries' and 'millions of children'.

- (b) The next set of errors of simplification are those of the omission of a word, as seen in the following examples:
- (137) *Han.kwuk.e swu.up* ($\sqrt{+pan}$) *i.lang pap.ul mek.u.lo kass.e.yo.* 'I went to eat with my Korean course($\sqrt{+class}$).'
- (138) Kwu.co ($\sqrt{+thim}$) ul pha.kyen.ha.ta. 'Dispatch a rescue ($\sqrt{+team}$)'
- (139) 2.si.kan ($\sqrt{+tong.an}$) han.kwuk.e kong.pwu.hay.yo. 'I study Korean($\sqrt{+for}$) 2 hours'
- (140) $Pakk.ey(\sqrt{+nal.ssi.ka})$ ne.mwu coh.a.se ki.pwun.icoh.kkay (coh.key) man.tup.ni.ta(ki.pwun.i coh.a.cip.ni.ta).

- 'I feel happy because(\(\forall + \text{the weather}\)) outside is so good.'
- (141) Chwul.thwoy.kun ttay.nun(√+cay.cwung) kyo.thong.ul i.yong.ha.ci mal.la.ya.keyss.e.yo (mal.a.ya.keyss.e.yo).
 - 'I had better not use the ($\sqrt{+public}$) transport during peak hour times.'

Example (137) appears to be due to interlingual interference, as *swu.ep* translates to 'class' in English, and thus learners may perceive adding the word *pan* 'class' to *swu.ep* 'class, course' as not necessary. The rest of the examples, however, do not appear to be due to direct interlingual interference, and may be due to (a) the learners' lack of knowledge of such collocations such as *thim.ul pha.kyen.ha.ta* 'dispatch a rescue team' in example (138); (b) the inequivalence with English *tong.an* 'during, while, for, through, over the course of' in example (139), which translate differently according to different contexts; or (c) simply due to learners' 'avoidance' due to their ignorance of such required words like examples (140) and (141) (James, 1998:63).

- (c) Omission of a phrase was not very frequent, which are shown in the examples below:
- (142) Ton.i man (manh.i) eps.ke.to (eps.e.to) (√+kal swu iss.ul man.khum) PC.pang.i ceng.mal ssa.yo.
 'The internet café is very cheap(√+that you can go) even if you don't have much money.'
- (143) *Ku.li.ko*($\sqrt{+kkok\ ka.po.ko\ siph.un}$) *tto ta.lun kos.u.lo i.su.than.pwul.i iss.ta.* 'Also another place($\sqrt{+that\ I\ want\ to\ definitely\ go\ to}$) is Istanbul.'

In the above examples, learners have omitted what they believe have been intended in previous sentences, but even so the sentences are awkward without the omitted phrases. Omission of words is generally committed by "untutored learners" (James, 1998:106-107) or beginner-level learners, where advanced-level learners tend to turn to other strategies to express their idea. This may explain the high frequency of omission errors of KHL learners in this study, who usually do not have much formal education in Korean-speaking contexts.

6.3.3 Semantic Similarity

Errors due to semantic similarity consist of the interchanging of synonymous but conceptually different words and are one of the most frequently discussed high difficulty categories in the lexical errors of KFL learners (Hong, 2004; Shin S-C, 2007a). These errors may be caused by various factors, and errors of other categories such as overgeneralisation and formal similarity have also occurred partially due to semantic similarity. The errors in this section, however, have been categorised on the basis of whether their primary cause of error was due to confusion between two lexical items with semantic similarity. Errors in this category were classified by nouns, verbs and adjectives.

- (a) Most of the errors due to semantic similarity were in the substitution between nouns. Observe the following examples:
- (144) *Han.kwuk sa.hoy.ey.se.nun mi.mo* (√woy.mo) *ka cwung.yo.ha.ta.* 'Good looks (√looks) are important in Korean society'.
- (145) In.kan.uy hwan.kyeng pha.koy.lo in.han hyo.kwa (√yeng.hyang) un i.sang.ki.hwu, on.nan.hwa, hay.swu.myen sang.sung tung.i iss.ta.
 'The(good) effects (√influence) of environmental damage by humans include abnormal climate, global warming, sea level rise etc.
- (146) Cak.ci.man kyo.kwa.cek.in hwan.kyeng po.ho.uy hayng.wi (√hayng.tong) tul.un manh.ko ta.yang.ha.ta.
 'There are many and various small but effective(conscious) actions (√acts) for environment protection.'
- Mo.tun ep.mwu.lul pi.hyo.ywul.cek.ha.key (pi.hyo.ywul.cek.ulo) ha.nun cung.sang (√hyen.sang) i manh.i po.i.ki.to si.cak.hayss.ta.
 'A symptom (√phenomenon) of doing all duties inefficiently was starting to be seen a lot.'
- (148) I.len pang.pep.ul thayk.han sa.ep (\sqrt{ki.ep}) tul.un sa.ep (ca.sin) tul.uy sang.pwum.kwa se.pi.su.lul sey.kyey.lo pyel.chye.cil (al.lil swu iss.nun) kyey.ki.ka sayng.kin.ta.
 - 'The **businesses** ($\sqrt{\text{companies}}$) that choose this method have a chance to introduce their products and services to the world.'
- Yak.so.kwuk.ul to.wu.nun (top.nun) kes.un ta.kwuk.cek ki.ep.ey
 (ki.ep.ey.key.nun) hyey.thayk.i toy.ci.man kwuk.nay sa.ep (ki.ep) ey.key.nun
 ko.thong.ul cwul swu iss.ta.
 'Helping weak countries are beneficial for multinational companies but may
 cause pain for domestic businesses (√companies).'
- (150) Pwul.phil.yo.han Kwang.myeng (√pwul) ul kku.ko su.wi.chi.kkaci kku.ki.to han.ta.

- 'I turn off unnecessary **bright lights (prospect)** ($\sqrt{\text{lights}}$) and also even turn off the switch.'
- (151) Hwan.kyeng.uy cay.hwal (√pok.kwu) ul wi.hay nol.yek.ha.ko iss.ci.man ku.kes.man.u.lo.nun yek.pwu.cok.hal (yek.pwu.cok.il) kkes (kes) i.ta.
 'We are working towards a rehabilitation (√restoration) of the environment, but that will not be sufficient enough.'
- (152) Kkay.kkus.han mwul.ul cey.kong.ha.ko nong.sa.lul hay.se um.sik (√sik.lyang) ul khi.wul swu iss.nun nung.lyek.ul cwup.ni.ta.
 'It gives them the ability to provide clean water and grow food (√(essential) food supplies) by farming.'

In the above examples, the confusion is seen between two words that are similar with conceptual and contextual differences such as the following: (144)*mi.mo* 'good looks' and *wey.mo* 'looks'; (145)*hyo.kwa* '(good) effect' and *yeng.hyang* 'influence'; (146)*hayng.wi* '(conscious) action' and *hayng.tong* 'acts, behaviour'; (147)*cung.sang* 'symptom' and *hyen.sang* 'phenomenon'; (148)-(149)*sa.ep* 'business' and *ki.ep* 'company, corporation'; (150)*kwang.myeng* 'bright light (prospect) and *pwul* 'light'; (151)*cay.hwal* 'rehabilitation' and *pok.kwu* 'restoration'; and (152)*um.sik* 'food (that can be eaten) and *sik.lyang* 'food (required to live)'. Many of these words are a component of the other, which makes it difficult to distinguish their difference in use. For example, *mi.mo* 'good looks' is a category within *wey.mo* 'looks', a *ki.ep* 'company' does *sa.ep* 'business' and *sik.lyang* 'food (required to live), ration' covers *um.sik* 'food (that can be eaten)'. This sort of confusion was often seen in the words associated with the word 'holiday', as in the examples below:

- (153) Sel.nal pang.hak (\sqrt{yen.hywu}) un 3.il tong.an iss.ko, i si.kan.ey (si.kan.un) sa.lam.tul.un manh.i (manh.un sa.lam.tul.i) ka.cok.kwa ham.kkey.ha.nun si.kan.ip.ni.ta.

 'The Lyner New Yeers school heliday (\sqrt{aytanded heliday}) lests for 3 do
 - 'The Lunar New Years **school holiday** ($\sqrt{\text{extended holiday}}$) lasts for 3 days, and this is a time which many people spend with their family.'
- (154) Khu.li.su.ma.su.ey.nun ho.cwu min.cok.ey.key cey.il kin pang.hak (√yen.hywu) ip.ni.ta.
 'Christmas is the longest school holiday (√extended holiday) for Australian people.'

The confusion between synonymous words for 'holiday' are usually seen between *hyu.il* 'a holiday', *hyu.ka* 'leave of absence', *pang.hak* 'school vacation' and *kong.hyu.il* 'a public holiday' for KFL learners (Shin S-C, 2007a), but here there was

confusion between *pang.hak* 'school vacation' and *yen.hywu* 'an extended holiday', possibly because an extended holiday such as Christmas usually overlaps with a school holiday. Another notable error was in the synonymous words with 'person', such as below:

- (155) Kwuk.cey ki.kwu.ul.lo.se (ki.kwu.lo.se) in.kan.ey (√sa.lam.tul.ul wi.hay) coh.un hwal.tong.ul ha.ko iss.ta.
 - 'As an international organisation, it is doing activities good for **humans** ($\sqrt{\text{people}}$).'
- (156) In.kan (\sa.lam.tul) uy il.sang.sayng.hwal.ul co.kum.i.la.to pa.kkwu.myen hwan.kyeng po.ho.ey to.wum.i toyl kes.i.ta.

 'If hymong (\square\text{poorlo}) abongo their doily lifestyle at least a little bit, it will be
 - 'If **humans** ($\sqrt{\text{people}}$) change their daily lifestyle at least a little bit, it will help with environment protection.'
- (157) I.le.ha.myen (i.leh.key ha.myen) in.kan (√sa.lam.tul) un te cil.i coh.ko ssan mwul.ken.ul sal swu iss.ta.
 'If this happens, then humans (√people) will be able to buy more between quality and cheap products.'
- Wu.li.uy sey.kyey.lul (ka) phyeng.hwa.lo.u.lye.men (phyeng.hwa.lo.wu.lye.men) mo.tun in.cong (√sa.lam.tul) uy ka.nan.ul pha.koy.hay.ya(ka.nan.ey.se pes.e.na.ya) han.ta.
 - 'For our world to be peaceful, all **races** ($\sqrt{\text{people}}$) need to break free from poverty.'

The words *in.kan* 'human' and *sa.lam* 'person' are semantically very similar and sometimes can be interchangeable, but there are definite conceptual differences between these two³⁰. While the term *in.kan* 'human' has a more biological connotation, *sa.lam* 'person' is a more general term that does not have a scientific interpretation to it. Thus in examples (155)-(157)above, the use of the word *in.kan* is semantically acceptable, but in the context of indicating a general population of people, the term *sa.lam* is more appropriate. In example (158), the learner has attempted to express the meaning 'everyone' by writing *mo.tun in.cong* meaning 'all races', which again appears semantically acceptable, but is contextually awkward and diverges from the intended meaning. Errors of semantically similar words (such as the examples discussed) need to be resolved by outlining different usage examples of such words, rather than relying on dictionary definitions.

³⁰ In short, *salam* has a much more broader usage than *inkan*, where *salam* is used to indicate 'a species adhering to rules', 'a member of society', 'a native of some region', 'adult', 'ethical being' etc, whereas *inkan* refers to the human species in general.

- (b) The second set of errors due to semantic similarity is those identified in verbs. A notable error was regarding the verbs *sa.yong* 'use' and *i.yong* 'utilise, make use of', as presented in the examples below:
- (159) Ku.li.ko il.hoy.yong.phwum.po.ta cay.hwal.yong.i ka.nung.han cay.lyo.lo man.tul.o.cin cey.phywum.tul.ul (cey.pwum.tul.ul) so.pi (√sa.yong) hap.ni.ta.
 'I also consume (√use) products made from recyclable materials rather than disposable products.'
- (160) Wun.cen.ul anh.ha.ko (an.ha.ko) pe.su.na ki.cha.lul sa.yong (√i.yong) hap.ni.ta.
 - 'I don't drive and **use** (\sqrt{make use of) buses or trains.'
- (161) Tay.cwung.kyo.thong swu.tan.ul sa.yong ($\sqrt{i.yong}$) hal swu iss.ta. 'You can **use** ($\sqrt{\text{make use of}}$) public transport methods.'

The word *so.pi* in example (159) means to 'consume, spend', which is a type of 'using' by wasting. The word *sa.yong* on the other hand, means to use without wasting. Example (159), however, states that 'recyclable items are used', and hence *sa.yong* is appropriate. In examples (160) and (161), there is confusion between the synonymous verbs *sa.yong* and *i.yong*, where public transport is 'utilised' or 'made use of' by people in public, and hence should be used with the verb *i.yong.ha.ta*. In regards to these two items, Shin S-C (2006a) found that both L1 and L2 Korean speakers perceived *i.yong.ha.ta* as more acceptable to use with *tay.chwung.kyo.thong swu.tan* 'means of public transport' compared to *ssu.ta*, although L2 learners were less rigid in their responses and showed a higher percentage of positive responses for *ssu.ta* than L1 learners. The words *sa.yong* and *i.yong* are difficult concepts for KFL and KHL learners of English backgrounds (Lee JH, 2003), mainly because of their dictionary definitions, which both translate as 'to use' in English. A similar type of error was seen in the verbs related to the meaning of 'finish'. See the examples below:

- (162) Ko.tung.hak.kyo kkuth.nay.ko (√ma.chi.ko) they.ip ka.ko (ka.nun kes.ul) em.ma a.ppa.ka silh.e.hayss.ta (silh.e.ha.syess.ta).
 'My mum and dad didn't like me going TAFE after I finish off (√finish the process of) high school.
- (163) Ku.len.tey(la.myen.i) kkuth.nay.ki (√wan.seng.toy.ki) cen.ey kyey.lan.ul noh.u.myen (neh.u.myen) wan.cen.hi (a.cwu) mas.i iss.ul ke.yey.yo.
 'But if you put in an egg before the lamyenfinishes (√is completed) it will be very delicious. '

Example (162) shows the substitution of *ma.chi.ta* 'to finish (some process)' with *kkuth.nay.ta* 'to finish off, complete', showing the difficulty in distinguishing between semantically similar words that translate to the same English word, which is 'to finish' in this case. Example (163) shows a confusion between the two synonymous words *kkuth.nay.ta* 'to finish off, complete' and *wan.seng.ha.ta* 'to complete, accomplish', where *wan.seng.ha.ta* is usually used with processes that require 'making', such as 'finish making *la.myen*'. Since words like these with the same English translation are very difficult for learners of English backgrounds, they require some contextual explanation too, such as comparing different examples or developing a dictionary of synonyms (Hong, 2004; Lee JH, 2003), rather than focusing on the dictionary definition of the word.

Other sporadic errors in verbs are shown in the examples below:

- (164) Han.kwuk.kwa ho.cwu.lul pi.ha.myen (√pi.kyo.ha.myen) manh.un sa.lam.tul.un han.kwuk.i te cay.mi.iss.nun na.la.ta.ko (na.la.la.ko) hap.ni.ta.
 'When relatively comparing (√comparing) Korea against Australia, many people say that Korea is a more interesting country.'
- (165) Manh.un na.la.lu (na.la.lul) ye.hayng.ha.mu.lo.se (ham.u.lo.sse) ca.sin.ul pal.tal (√pal.cen) ha.ko chas.cul (chac.ul) swu iss.nun ki.hoy.la.ko sayng.kak.han.ta.

'By travelling to many countries, I think it is an opportunity for many people to **grow** ($\sqrt{\text{develop}}$) and find oneself.'

The verbs *pi.ha.ta* 'to compare' and *pi.kyo.ha.ta* 'make a comparison' in example (164) are very similar in meaning, where the difference is that *pi.ha.ta* 'to compare' is used for a relative comparison, such as in the example *na.i.ey pi.hay e.lye.po.ye.yo* 'look young compared to/relative to your age'. The verb *pi.kyo.ha.ta* 'make a comparison', on the other hand, is used to 'measure A against B' to study the similarities, differences etc. of the two. In example (164), the learner has compared the traits of Korea and Australia which is an absolute comparison, unlike when talking about Korea compared to Australia which is a relative comparison, and hence should be used with the verb *pi.kyo.ha.ta* 'make a comparison'. The word *pal.tal* 'develop, grow' in example (165) is used for the growth of the body, emotions, intelligence etc. such as *kun.ywuk.uy pal.tal* 'muscular development', the advancement of research, technology, social or economical status such as *kyeng.cey.uy pal.tal* 'economic development', and the development of an area or region such as *to.si.uy pal.tal* 'development of cities'.

Example (165), however, is talking about the development of self, in which case should be *pal.cen* 'develop (into a better state)'. Such synonymous pairs are very difficult to distinguish by definition, and moreover are also similar in form, which can only be distinguished by their difference in use by providing examples.

- (c) The third group consists of errors due to semantic similarity associated with adjectives.
- (166) Pam.ey phwuk ca.nun kes.un swi.wen (si.wen) (√sang.khway) ha.ko in.sayng.ey (in.sayng.ey.se) cey.il cwung.yo.han ke.yey.yo.
 'Sleeping well at night is cool (√refreshing) and is the most important thing in life.'
- (167) A.pen.nim.i (a.pe.ci.kkey.se) (yeng.hwa.lul) hon.ca po.nunkes.i (kes.ul) com se.wun ($\sqrt{mi.an}$) ha.key nu.kkyess.ta.ko (nu.kki.syess.ta.ko) pop.ni.ta. 'I think that my father felt **sad** (\sqrt{sorry}) to watch the movie alone.'

The adjective *sang.khway.ha.ta* 'to be fresh, refreshing' in example (166) encompasses the meaning *si.won.ha.ta* 'to be cool', but while *si.won.ha.ta* 'to be cool' refers to cool temperature or the feeling of being having no burden as in *sok.i si.won.ha.ta* 'to be glad / have a load off one's mind', *sang.khway.ha.ta* 'to be fresh, is refreshing' refers to emotive feelings which refers to the state of feeling refreshed and revived. Thus in this case, the 'feeling of being refreshed' is linked to 'sleeping well at night' and so *sang.khway.ha.ta* is appropriate. Example (167) shows the substitution between two emotive words, where *se.wun.ha.ta* means 'to feel sad (by disappointment)' and *mi.an.ha.ta* means 'to feel sorry'. In this example with the relationship of the father and learner, the father may have felt 'sorry' and not 'sad' for watching the movie alone, and hence should be used with the adjective *mi.an.ha.ta*.

Many of the errors due to semantic similarity were related to those associated with quantity, as in the examples below:

- (168) I.len co.kum.han (co.ku.man) (√cak.un) hayng.tong.i hwan.kyeng po.ho.ey.nun khun to.wum.i toyl.ci.nun mo.lun.ta.
 'I don't know whether such small-sized (√small) action will help with environmental protection.'
- (169) Wu.li ka.cok.ey.key.nun cak.un ($\sqrt{cek.un}$) ton.i.ess.ta. 'It was a **small** (\sqrt{small} amount of) money to my family.'
- (170) Han.kwuk.in.tul.un um.sik.i com manh.tun co.kum.i.tun (√cek.tun) se.lo na.nwu.e mek.ko na.nwu.e kac.sup.ni.ta.
 'Koreans share and eat together whether there is plenty or small (√little) food.'

Example (168) shows the confusion between the adjectives *co.kum.a.ha.ta* 'to be small/petty (in measurements or quantity)' and *cak.ta* 'to be small (in measurements, scale, scope, importance)', where a 'small action' is not small in measurements or quantity, but in scope and thus should be used with *cak.ta*. Example (169) on the other hand shows the erroneous use of the adjective *cak.ta*, as 'money' is counted by quantity and not size, and hence should be described by the adjective *cek.ta* 'to be small, little (in quantity)'. Example (169) shows the confusion between the adverb *co.kum* 'some (quantity), a few (numbers)' and the adjective *cek.ta* 'to be small (in amount)'. This error appears to be more than just a semantic confusion, as the word *co.kum* is correct semantically to use with the word 'food' as food can be expressed in quantity, but cannot be used in a comparative relationship with the preceding noun *manh.ta* 'to be lots of, plenty of' as its antonym is *cek.ta*. In this case, it appears that the learner is only aware of the meaning of the word, but not its semantic relationship with other adjectives or its semantic boundary and its grammatical use.

There appears to be various causes for errors due to semantic similarity, where the main causes are known to be teacher or materials induced and interlingual transfer (Hong, 2004; Shin S-C, 2007a; Lee JH, 2011). In particular, Lee JH (2011) notes that intermediate level learners, unlike beginner level learners, have a tendency to try to express their opinions or feelings accurately, where they try to use new words with subtle differences in such process. Hong (2004) notes that teachers tend to teach new words or concepts with other similar words which leads learners to think that they can be used interchangeably. It is evident that the teacher plays an important role in reducing semantically similar errors of learners, in addition to the revising of materials that learners turn to, such as the development of a "linguistically adequate, learner-friendly and learner-relevant dictionary" (Shin S-C, 2007a:169).

6.3.4 Inappropriate Honorifics

Honorifics are defined as "grammatical and lexical forms encoding the speaker's socio-culturally appropriate regard towards the addressee (i.e., addressee honorification) and the referent (i.e., referent honorification)" (Sohn H-M, 1999:408). In light of this definition, errors in inappropriate honorifics in this chapter can be categorised largely into two categories: (a) misuse of honorifics due to honorification of lexical items that

are not supposed to be honoured; and (b) neglecting of honorifics on lexical items that are supposed to be honoured. Since errors of honorific suffixes have been categorised as grammatical errors, only those errors of honorific expressions have been included in this section. Although honorific expressions can be treated as sociolinguistic or pragmatic errors, as not many sociolinguistic or pragmatic errors were identified in this study, the study has followed the conventional method of categorisation and has categorised honorific expressions as lexical errors. Each category of inappropriate honorifies can be subcategoried broadly into three groups: errors in pronouns, nouns and verbs.

- (a) Errors of honorification: The misuse of honorifics due to honorification of lexical items that are not supposed to be honoured includes those that are contextually inappropriate where the learner, who has an inferior or equal social relationship to the reader, has referred to a subject with higher social status than the reader in humble form (relative honorifics). Another type in this category are those that are structurally inappropriate where the sentence has been written in plain declarative form but the part of the sentence has been written in humble form. In this category, errors associated with first person pronouns were the most distinctive subcategory. See the examples below:
- (171) Ce.huy (√wu.li) sa.hoy.ey.se cay.hwal.yong.ul hay.ya han.ta.nun sa.ko.pang.sik.ul khi.wu.nun.key ka.cang cwung.yo.ha.ko siph.ta.ko (cwung.yo.ha.ta.ko) sayng.kak.hap.ni.ta.
 'I think it is most important to develop the impression that we need to recycle in our society.'
- (172) Ce.huy (√wu.li) nun ca.yen hwan.kyeng.kwa kwan.lyen.toyn kek.ceng.i toy.key mang.un sa.hoy.ey sal.ko iss.sup.ni.ta.'We are living in a society with a lot of concerns about the environment.'
- (173) $Ce(\sqrt{na})$ nun may.il a.chim il.e.nass.ul ttay, tta.ttus.han mwul.ul ma.shin.ta. 'I drink warm water every morning when I wake up.'
- (174) Ken.kang (ken.kang.ul) wi.hay.se ce (\sqrt{na}) nun wun.tong.ul si.cak.hayss.ta. 'I started to exercise for my health.'

Examples (171) and (172) may seem grammatically correct, as the sentence is in formal polite declarative form and the learner has referred to oneself as *ce* 'I (humble)'. Morally, however, as honorifics are used when the addressee has a higher social status than the speaker, it conversely puts the speaker on a lower social status than the addressee and thus should not be used in conjunction with one's country, people or society. As an error also made by native speakers of Korean, these errors may have been induced pragmatically for KHL learners who are integrated into the Korean society, but

also may have simply been misled into an erroneous judgement based on the formal polite declarative sentence type which usually requires the humble form. Examples (173) and (174) are structurally erroneous where the first person is written in humble form but the sentence is in plain declarative form. These appear to be the case where learners have overestimated the usage of first person honorifics, where they may have assumed that it is 'rude' to use the plain form na 'I (plain)'. As honorifics in pronouns are complex in that they require an understanding of the social relationship with the addressee and/or referent (Sohn H-M, 1999), its pedagogy should go beyond grammar instruction but also consider incorporating the sociolinguistic aspect by outlining how social variables affect reference terms between the speaker, referent and hearer (Shin G-H, 2001a).

There were a number of errors of inappropriate honorifics in nouns in this category, where learners overestimated the need to honour a general noun when it was not appropriate to do so. These can be seen in the following examples:

- (175) Ce.uy yen.sey.ey iss.nun (yen.sey.tay.hak.kyo) lwum.mey.i.thu.nun cham thuk.hi.han (thuk.i.han) sa.lam.i.ey.yo. Ku pwun (√sa.lam) uy i.lum.un ... 'My Yonsei University roommate is an odd person. **His** name is...'
- Syo.phing.i.na yeng.hwa kwan.lam.ul cul.ki.nun pwun (√sa.lam) tul.un(i.le.han) hwal.tong.tul.to nuc.key.kka.ci cul.kil swu iss.key toy.ess.ta.
 'People who like shopping or watching movies can now enjoy these activities until late.'
- (177) "yeys.nal (yeys.nal.ey.nun) la.in (la.in.i) iss.ess.ten.tey (iss.ess.nun.tey) ci.kum (ci.kum.un) nay.ka pi.man.ul way(way pi.man.i) twayss.e?" kath.un malssum (√mal) ul tul.e.yo.
 - 'I hear words like "Before I had a nice body line, but why am I obese now?""

Examples (175)-(176) indicate a general subject with a neutral social status in relation to the learner and thus should use the non-honorific form *salam* 'person (plain)'. In the case of example (177), the subject that is in relation to the noun *mal.ssum* 'words (honorific)' has an equal, lower or neutral social relationship with the learner and thus should not be in honorific form and should be replaced by the plain form *mal* 'words (plain)'.

(b) Errors of neglecting honorifics: The misuse of honorifics due to the neglecting of honorifics for lexical items that are supposed to be honoured was seen in pronouns, nouns and verbs. Errors in this subcategory occurred when the learner did not

refer oneself in humble form in a polite declarative sentence, when a subject with a higher social status than the learner was not written in honorific form, or when a noun or verb referring to a superior was not written in honorific form. Errors in pronouns are shown below:

- (178) Cip.ey ol ttay e.me.ni.ka na (√ce) han.they sel.myeng.hay.se (sel.myeng.hay.cwu.sye.se) han.kwuk.ey.nun (han.kwuk.ey.se.nun) san.nak.ci.nun cen.thong um.sik.i.la.ko (um.sik.i.la.nun kes.ul) al.ass.e.yo. 'When we were coming home, my mother explained to **me** so I found out that raw octopus is a traditional food in Korea.'
- (179) Ney.ka (nay.ka) (√cey.ka) 5.sal twayl ttay sam.chon.i cang.nang.kkam (cang.nan.kam) hwa.sal.ul sa.cos.sup.ni.ta.
 'When I was turning 5 my uncle bought me a toy arrow.'
- (180) Ci.nan kye.wul.ey na (√ce) ha.ko chin.kwu (chin.kwu.wa) kath.i ha.wa.i.ey kass.e.yo.

'Last winter I went to Hawaii with my friend.'

In all the examples above, the sentences are in polite declarative or deferential declarative style, which consequently require the humble form ce 'I', unless the speaker was using polite declarative form to someone with an inferior social relationship, in which case the plain form na 'I' would be acceptable.

Errors in nouns in this category were not of high frequency, but still worth noting a few repetitive errors, outlined in the examples below:

- (181) E.me.ni.nun na.han.they"han.kwuk.ey ku.nyan iss.ci ku.lay"(la.nun) mal (√mal.ssum) ul manh.i hay.yo.
 - 'My mum often says to me "Why don't you just stay in Korea?""
- (182) Um.sik.ul ta cwun.pi.ha.ko.se pap.sang.ul cha.li.ko i.mo.ka "ta.tul anc.i.sey.yo (anc.u.sey.yo)" (la.nun) mal (√mal.ssum) ul hayss.e.yo (ha.syess.e.yo).
 'After preparing and setting the food, my aunt said "All of you come and sit."
- (183) Cey.ka sim.sim.hal.kka.pwa wu.li i.mo.ka chin.kwu.lul cho.tey.ha.la.ko (co.tay.ha.la.ko) mal (√mal.ssum) hayss.e.yo (ha.syess.e.yo). 'My aunt **told** me to invite a friend just in case I get bored.'
- (184) (A.pe.ci.nun nay.ka) kyeng.chal.i toy.ko siph.ta.ko mal.hayss.ul ttay ku wi.hem.ha.ko pak.pong.in cik.ep.ul (il.ul) way ha.nu.nya.ko mal (√mal.ssum) ha.syess.ta.
 - 'When I said that I want to become a police officer, my dad **said** why would I do such dangerous and low-salary job.'
- (185) Cip.ey ka.se a.pe.ci.han.they o.nul han sil.swu.lul mal (√mal.ssum) hayss.ta (tu.lyess.ta).
 - 'I went home and **told** my father about the mistake I made today.'

The errors in the above examples show the substitution of an honorific form of a noun with a plain form when the subject referent is of a superior social relationship to the learner. Examples (181)-(185) also show the action *mal.ha.ta* 'speak (plain)' of a superior family member, where the honorific form *mal.ssum* 'words (humble)'should replace the plain form *mal* 'words (plain)'. In particular, examples (182)-(184) also require the inflectional suffix -(*u*)si- to complete the honorification, while example (185) needs the humble predicate *tu.li.ta* 'give (humble' instead of *ha.ta* 'do'.

There are only a limited number of nouns in honorific form to refer to a superior or distant person and their possessions, as listed in the table below:

Meaning	Plain	Honorific
Wife	che/a.nay/ma.nwu.la	pwu.in/sa.mo.nim
House	cip	tayk (context-bound)
Son	a.tul	a.tu.nim
(female's) older brother	o.ppa	o.la.pe.ni(m)
Words	mal	mal.ssum
Meal	рар	cin.ci
Name	i.lum	seng.ham
Age	na.i	yen.sey

Table 31 Nouns in honorific form

Highlighting such words thus may be effective in reducing errors of this type, while also outlining the honorific collocations such as *mal.ssum.ul tu.li.ta* 'say, talk (honorific + humble)'.

Errors in verbs and predicates are also similar to those in nouns, and occur in a limited set of words such as in examples (186)-(189):

- (186) Ko.tung.hak.kyo.ey.se sang manh.i pat.un ke hal.a.pe.ci.hanh.they
 (hal.a.pe.ci..han.they) po.ye.cwu.ko (√po.ye tu.li.ko) siph.e.yo.
 'I want to show my grandpa the many awards I received in senior school.'
- (187) *Pwu.sa* (*pwu.san*) *ey.nun hal.me.ni hal.a.pe.ci.ka sal.ko iss.e.yo* (√*kyey.sye.yo*). 'My grandma and grandpa **live** in *Pwu.san*.'
- (188) Ku.len.tey e.lyess.ul ttay i kong.cwu.uy pwu.mo.nim.i cwuk.ess.e.se
 (√tol.a.ka.sye.se) ka.cok.uy ton.i ta eps.e.cyess.sup.ni.ta.
 'But because the princess' parents died when she was young, all the money that their family had had disappeared.'
- (189) (hal.a.pe.ci.lul) han pen.man te man.na.ko (√poyp.ko) siph.un.tey an toy.ni.kka ku.nyang coh.un chwu.ek.u.lo sayn.kak.hal (sayng.kak.hal) ke.yey.yo.

'I want to **meet** my grandpa again but since I can't do that, I will keep it as a good memory.'

Again, the examples above refer to a superior person such as grandma, grandpa, parents, uncle, aunt and teacher. Errors were seen in (186)tu.li.ta 'give (humble)' replaced by the plain form cwu.ta 'give (plain), (187)kyey.si.ta 'stay (humble)' replaced by iss.ta 'stay (plain)', (188)tol.a.ka.si.ta 'die (humble)' replaced by cwuk.ta 'die (plain)', and (189)poyp.ta 'see (humble)' replaced by po.ta 'see (plain)'. Humble forms of verbs and predicates are just as limited as nouns, and thus the problem appears to be more than just a matter of learning the words, but there seems to be a need for more focus on speaker and subject-referent relationship when teaching such forms.

6.3.5 Overgeneralisation

Errors by overgeneralisation occur when the learner commits a wrong lexical choice due to their lack of context-specific lexical items, and overly generalises it by inappropriately or incorrectly applies it to another context. Overgeneralisation errors are defined differently in different studies which sometimes include word coinage or incorrect use of honorifics in this category, but these will be discussed as separate categories in this study.

One of the notable types in this category was the overgeneralisation of verbs to the word *iss.ta* 'to be located, to exist, to possess'. Observe the following examples:

- (190) (Na.nun) mi.kwuk.ey.se mel.li tte.le.ce (ttel.e.cye) iss.e.yo ($\sqrt{sal.a.yo}$). 'I **am** (\sqrt{live}) far away from America.'
- (191) $Ta.ham.kkey iss.ko (\sqrt{mo.ye.se}) mas.iss.nun um.sik.ul mek.sup.ni.ta.$ 'We **are** (\sqrt{get}) together and eat delicious food.'
- (192) Wu.li.nun kyey.sok chin.ha.key iss.ul ($\sqrt{ci.nayl}$) ke.yey.yo. 'We are going to keep **being** ($\sqrt{get along as}$) friends.'
- (193) A.mwu.li e.lye.we.to te manh.i ka.myen nay mom.i ka.pye.we.cin.ta.nun ki.pwun.i iss.sup.ni.ta (√tup.ni.ta).
 'No matter how hard it is, if I keep going I have (√get) the feeling that my body is loosened up.'

The examples above show overgeneralisation of verbs with the verb form *iss.ta* of location (190)-(191), existence (192) and possession (193). When the word *iss.ta* is

used to denote location, the preceding particle should be a locative static particle -ey, such as ce.nun mi.kwuk.ey iss.e.yo 'I am in America'. In example (190), however, the preceding particle is a source particle -eyse which is used to indicate 'from', and thus the locational adjectival verb iss.ta cannot be used. Similarly in example (191), the phrase ta.ham.kkey iss.ta means 'we are (somewhere) altogether' which is contextually incorrect, and should be replaced by the phrase ta.ham.kkey mo.i.ta 'we get together'. In example (192), the verb ci.nay.ta carries the meaning 'get along' when used in relationships such as chin.kwu.lo ci.nay.ta 'be friends' 'get along as friends', where iss.ta is used to denote location or existence and hence is inappropriate. Similarly in example (193), the verb tul.ta translates to 'have' when used with sensation such as ki.pwun.i tul.ta 'have the feeling', which may be perceived as a possessive adjective to learners of English backgrounds.

Overgeneralisation of numeral collocations was also identified in this study, although less frequently than in previous KFL studies (Shin S-C, 2002). Errors in this subcategory include the overgeneralisation of numerals or counters. Observe the following examples:

- (194) Cal.mos.han kes.ul in.ceng.ha.ko ta.um.ey cey.ka ku.kass.un (ku.kath.un) il.i na.mye.nun (na.myen) cey.ka ton.ul twu pen (√pay.lo) nay.keyss.sup.ni.ta.
 'I will admit my fault and if such thing happens again later I will pay **twice** (√**double the amount).**'
- (195) I seys (√sey.ka.ci) pi.kyel (pi.keyl.ul) ha.myen (tta.lu.myen) wu.li ken.ka (ken.kang) i manh.i coh.ul (coh.a.cil) ke.yey.yo.
 'If we follow these three (kinds of) tricks, our health will become much better.'
- (196) Cey sayng.kak.u.lo (sayng.kak.u.lo.nun),i twul (√twu) na.la.ey kak.ca.ey (kak.ca.uy) pam mwun.hwa.ey (mwun.hwa.uy) tan.cem.kwa cang.cem.i iss.sup.ni.ta.
 'In my opinion, I think the night culture of these two countries has their
 - strengths and weaknesses.'
- (197) Han (√ches.pen.ccay) cem.un ta.kwuk.cek ki.ep ttay.mwun.ey sa.ep.tul.un si.tal.li.ko iss.ta.
 - 'One ($\sqrt{\text{The first}}$) point is that businesses are having a hard time because of multinational companies.'

Example (194) shows an overgeneralisation of the counter *pay* which means 'times, multiple of', which in this case appears to be due to the unfamiliarity of or confusion between the counter *pen* which also means 'times' but to express frequency.

Examples (195)-(197) show an overgeneralisation of Native-Korean numerals³¹. In the case of examples (195) and (196), the learner has misplaced the numerals with the numbers of the Native-Korean numeral system *ha.na, twul, seys, neys* etc., rather than using the numerical determiners *han, twu, sey, ney* etc. that are supposed to be used with the following nouns. In example (197) on the other hand, the learner has overgeneralised the native ordinal *ches.pen.ccay* 'first' for the numerical determiner *han* 'one'. Since Korean has two numeric systems which are used for classifier constructions which usually take the form of NOUN+[NUMERAL+COUNTER] (Sohn H-M, 1999:352), it is a new concept to learners of Korean with English backgrounds as numerals and counters in English are not as abundant as those in Korean. Intralingual interference thus appears to be the main cause for these errors, and indicate the need for a development of a specific set of rules to assist in effectively reducing these types of errors.

Many of the miscellaneous errors identified were related to verbs, as in examples (198)-(202):

- (198) La.myen.ul i.leh.key man.tu.myen (man.tul.myen) (√kkulh.i.myen) swil (swi.wul) ppwun.man a.ni.la i.cwu mas.iss.ke.tun.yo.

 'If you **make** (√**boil**) la.myen like this, it is not only easy but also very delicious.'
- (199) Ce.nun chin.kwu.tul (chin.kwu.tul.ul) mos man.tul.kka.pwa (√sa.kwil.kka.pwa) kek.ceng.i.ess.e.yo.
 - 'I was worried that I wouldn't be able to **make** ($\sqrt{associate with}$) any friends.'
- (200) Wu.li ka.cok.i (ka.cok.ey.key) pwu.cok.hayss.tenywu.ka (hywu.ka) si.kan.i tu.ti.e wa.se (√sayng.kye.se) hayng.pok.hayss.e.yo.
 'I was happy because the free time that my family was lacking finally came (√was formed).'
- (201) A.i.mayk.i ne.mwu pi.ssa.myen kong.pwu yel.sim (yel.sim.hi) hay.se ton.ul manh.i pat.ko (√pel.ko) a.i.mayk.ul ha.na sa.po.sey.yo.
 'If an iMac is too expensive, study hard and receive (√earn) a lot of money and try buying an iMac.'
- (202) Cen.thong.ki.swul.tul.ey (cen.thong.ki.swul.tul.uy) tek.pwun.ey kak na.la.ey (na.la.uy) kyeng.cey.ka te khu.ko (√pal.cen.ha.ko) iss.ta.

 'Each country's economy is **getting bigger** (√**developing**) thanks to traditional technology.'

-

³¹ Korean has two sets of numerals – Native-Korean system and Sino-Korean system. Native numerals are usually used with low numbers, and Sino-Korean numerals are usually used for high numbers. For example, Sino-Korean numerals are used with dates; Native numerals are used with hours in time which Sino-Korean numerals are used with minutes and seconds; Native numerals are usually used with age although Sino-Korean is also used, depending on the dependent noun (Song J, 2012).

There appears to be some interlingual interference in these errors as in examples (198) and (199), where the words *kkulh.i.ta* 'boil' and *sa.kwi.ta* 'associate with (someone) are translated to 'make' in such contexts respectively, and in example (200) where *o.ta* is 'come' in English. Such errors also appear to be due to a lack of knowledge of such idiomatic collocations which leads them to overgeneralise. Examples (201) and (202) are contextually incorrect, where 'earn' has been overgeneralised to 'receive', and 'developing' to 'getting bigger' respectively.

Errors associated with adjectives were sporadic and were very minimal, and were seen examples such as the following:

- (203) Mi.kwuk ttang.i han.kwuk ttang.po.ta te manh.a.se (√nelp.e.se) cip.tul (cip.tul.i) a.cwu khu.ta.
 'The land of America is more plenty (√larger) than the land of Korea so the houses are very big.'
- (204) I.ik.to noph.a.ci.ko (\scriptcung.ka.ha.ko) kwuk.ka kyeng.cey.ka kay.pang.toy.myen.se na.la.tul.i te pen.yeng.u.lo sen.cang.hal (pen.yeng.hal) swu iss.sup.ni.ta.
 - 'As interest **goes higher** ($\sqrt{\text{increases}}$) and the domestic economy expands, the nations can prosper.'

Errors of overgeneralisation in adjectival verbs such as *coh.ta* 'to be good', *na.ppu.ta* 'to be bad', *manh.ta* 'to be lots of' and *cek.ta* 'to be little, small' etc. have been identified in previous KFL studies too (Wang H-S, 1995; Shin S-C, 2002; Kang M and Chang, 2014), but these do not pose as a serious problem for KHL learners in this study. Confusion in similar adjectives appears to be both interlingual and intralingual factors, where both the similarity in English equivalents and learners' insufficient knowledge of the contextual restrictions in Korean influence such overgeneralistion of lexical items.

6.3.6 Formal Similarity

Errors of formal similarity are caused by those that look or sound similar, which differ from orthographic errors that are merely misspellings of an intended meaning of a lexical item, but rather those that are caused by similar form that diverges from the learner's intended meaning. Errors in Korean can be categorised as formal similarity

according to four factors: substitution between two words that (a) have the same number of syllables; (b) be of the same word class; (c) have the same initial or final syllable; and/or (d) have some phonemes in common (James, 1998:145). Having classified according to these four factors, errors of formal similarity have been further classified into three types: (a) formal similarity with no semantic association; (b) formal similarity with some semantic association; and (c) formal similarity in sensory adjectives.

- (a) A large proportion of errors in this category were between two words with no semantic association, which appear to be purely confusion in formality. See the following for example:
- (205) a.i.tul (a.i.tul.i) ay.kil (e.lil) tay (ttay) swu.hak, yeng.e, hank.kwuk.e.lul ka.li.khi.ko (√ka.lu.chi.ko) siph.e.yo.
 'I want to point at (√teach) my children mathematics, English and Korean when they are young.'
- So.nye so.nyen (so.nye so.nyen) ka.ceng (√ka.cang) kwa kath.i ta.yang.han sa.ceng.ul thong.hay (sa.ceng.ul.lo in.hay) e.lye.wum.ul kyek.nun (kyekk.nun) a.il.tul.ey.key ci.wen.ul cwu.ko siph.ta.
 'I want to support children having various difficulties like those children who are household(√head of the household).'
- (207) Ke.i (ke.uy) si.hem ki.kwan (√ki.kan) ttay, il.ul tel.ha.ko so.pi.ka kath.u.myen ton.i pwu.cok.ha.ci.yo.
 'Mostly during exam institutions (√time), I am short of money since I work less and spend the same.'
- i.kes.un pa.lo han.kwuk.uy kyo.ywuk ceng.chey.ey kwan.han (√chey.cey.lo in.han) kyeng.cayng.i.ta.
 'This is a competition that has occurred due to the Korean education congestion (√system).
- (209) Wayn.ha.myen (way.nya.ha.myen) a.pe.ci.uy.ey (a.pe.ci.uy) sa.lang.i el.ma.na ki.ppun.ci ($\sqrt{ki.phun.ci}$) pwa.se (pwass.ki ttay.mwun.i.ta). 'It is because I saw how **happy** (\sqrt{deep}) my father's love is.'

As in example (205), the confusion between *ka.lu.chi.ta* 'teach' and *ka.li.khi.ta* 'point at' was a frequently committed error in this category, and is an error which native Koreans often make too due to their phonetic similarity. The erroneous words are generally substituted with one erroneous vowel or syllable which are graphically similar as listed in examples (206) and (207), or by syllables that sound similar because they consist of the same alphabetical characters as in examples (208) and (209). The cause of such errors is unclear, but there seems to be both interlingual and intralingual influence upon these. One is that these may have been caused by learners' ignorance of their

meaning, and the other is that their receptive skills have been influenced by their L1, which, similarly to their orthographic errors, causes substitution with lexical items with similar sound.

- (b) Lexical errors of formal similarity with some semantic association are also identified as a large subcategory of errors, as outlined in the following examples:
- (210) E.len.sik.u.lo (i.len.sik.u.lo) kyey.sok na.ka.myen (√na.a.ka.myen) yak.so.kwuk.kwa kang.tay.kwuk sah.i (sa.i.ey) iss.nun sa.hoy koy.li.ka te khe.cil swu.pakk.ey eps.ta.

 'If this keeps **going out** (√**preceding on**) like this, then the societal gap between
- (211) Cwung.kwuk.ey iss.nun kong.sa.cang (√kong.cang) ey.se chen.ul kay.pal (sayng.san) han.ta.

 'They produce fabric at a **construction site** (√**factory**) in China.'
- (212) Wel.tu.pi.cen.un hyen.tay (√hyen.cay) 90.kay i.sang kwuk.ka.ey (kwuk.ka.ey.se) cak.tong.toy.ko (hwal.tong.ha.ko) iss.ta.
 'World Vision is in modern times (√currently) active in more than 90 countries.'

The above examples show confusion between (210)na.ka.ta 'go out, leave' and na.a.ka.ta 'precede, advance'; (211)kong.sa.cang 'construction site' and kong.cang 'factory'; and (212)hyen.tay 'modern times, today' and hyen.cay 'current, the present'. A lack of formal education may be the cause of this error type, as for most KHL learners, their lexical knowledge derives from what they hear at home or in the Korean community, and thus may largely depend on the sound rather than the exact meaning of the word they are using. Thus these learners may be deceived into thinking that they know the meaning of the word, but will find it difficult to distinguish between the meanings of the correct and erroneous words as their knowledge of the words is an ambiguous one that derives from what they hear.

- (c) Errors in words that describe emotions or senses were minimal and some of these are shown in examples (213)-(216) below:
- Yeng.hwa.ey wu.wul.han kes.to iss.ess.ci.man nay.yong.i tay.tan.ha.ko kam.sang.cek (√kam.tong.cek) i.ess.u.ni.kka ceng.mal cay.mi.iss.key pwass.ten sayng.kak (ki.ek) i nam.ass.e.yo.

 'There were depressing parts in the movie but the story was amazing and
 - 'There were depressing parts in the movie but the story was amazing and **emotional** ($\sqrt{\text{touching}}$) so I remember it being very interesting.'
- (214) Se.wul (se.wul.un) naym.sey.ka ne.mwu silh.e.ha.ko (√silh.ko) kil.u.lo (kil.ul) ka.myen.se (ka.myen) ka.kkum swum mos hay.yo (swi.e.yo).

- 'The smell of Seoul is **dislike** ($\sqrt{\text{unpleasant}}$) and sometimes I can't breathe when I'm walking on the streets.'
- (215) Chin.kwu.ka wi.khit.un (wi.khi.tu.lul) cay.il (cey.il) coh.ass.e.yo (√coh.a.hayss.e.yo).
 - 'My friend **good** (\sqrt{liked}) Wicked the most.'
- (216) Cey (cey.ka) cey.il coh.un ($\sqrt{coh.a.ha.nun}$) chak.i "yo.li kong.cwu"ip.ni.ta. 'The book I **good** (\sqrt{like}) the most is "yo.li kong.cwu".

While these errors have occurred due to formal similarity, there also exists the problem of understanding sensory constructions such as in examples (214)-(216), where transitive sensory adjectives such as *coh.ta* 'to be good' and *silh.ta* 'to be unpleasant' are changed to a transitive verb when the infinite suffix -*e/a* and verb *ha.ta* are attached, making it *coh.a.ha.ta* 'to like' and *silh.e.ha.ta* 'to dislike'. Shin S-C (2006b) explains that this type of error is largely due to their formal and phonetic similarity assisted by the fact that they share the same semantic root, and notes that teaching such grammatical constructions will be more effective than purely relying on semantic distinctions.

6.3.7 Collocation and Idiomaticity

Collocation and idiomaticity refers to expressions that are whole when paired with certain lexical items. Such expressions need to be taught as a whole as there are certain words that accompany another.

In general, many of the errors in this category were associated with the verb *ha.ta* 'to do', as in the examples below:

- (217) Sa.lam.tul.un cang.ul ye.ki ho.cwu.che.lem cwu.mal.ey.se.man
 (cwu.mal.ey.man) an ha.ko (√po.ko) phyeng.il nac.ey.se.to (nac.ey.to) hal
 (√pol) swu iss.sup.ni.ta.
 'People not only do the shopping on weekends like here in Australia, but can also do it on weekdays in the daytime.'
- (218) Ey.cey (e.cey) swul.ul ma.shi.nu.la.ko (ma.she.se) nuc.cam.ul hass.ta.ko ($\sqrt{cass.ta.ko}$) hayss.e.yo. '(She said that) she **slept in** because she was drinking yesterday.'
- (219) Coh.un sup.kwan.ul hay.ya (√ka.cye.ya) ken.kang.ha.key o.lays.tong.an sal swu iss.e.yo.
 - 'You need to **have** a good habit in order to live long.'

- (220) Ce.nun khi (khi.ka) cak.ko han.kwuk.ey.se mi.kwuk.u.lo i.min hayss.e.yo (√kass.e.yo).
 - 'I am short and I **immigrated** from Korea to America.'
- (221) Cey chin.kwu.nun pel.se (pel.sse) han.kwuk.um.sik.eyswu.ep.i (han.kwuk.sum.sik swu.ep.ul) hayss.e.yo (√tul.ess.e.yo). 'My friend has already **taken** the Korean food course.'
- (222) Chin.kwu.ey.key han thek ha.ta ($\sqrt{nay.ta}$) 'Shout a meal/drink to a friend.'

As the examples indicate, the substitution with the verb *ha.ta* 'do' appears to be partially due to interlingual interference as in example (217), where *cang.ul po.ta* '[lit.] see the shopping' translates to 'to *do* the shopping'. In most examples, however, interlingual interference is not so apparent as their literal translation into English are nonsensical, such as (218)*nuc.cam.ul ca.ta* 'sleep a sleep in'; (219)*sup.kwan.ul kac.ta* 'possess a habit'; (220)*i.min.ul ha.ta* '[lit.] do an immigration'; (221)*swu.ep.ul tut.ta* 'hear a class';(222)*han thek nay.ta* '[lit.] to pay a shout'. This narrows down to two possible explanations for this type of substitution. The first is that learners may not be aware of the correct collocations and thus replaced the correct verb with what they may perceive as a 'general' verb *ha.ta*. In this case, insufficient input from textbooks or teachers may be responsible for such collocative errors that lead to overgeneralisation. Another possible explanation is that learners may lack knowledge of the contextual usages of the word *ha.ta* itself. Since the verb *ha.ta* encompasses a very broad meaning and complex usages, merely perceiving *ha.ta* as 'do' in English may be the cause of such generalisation of the word.

Apart from the verb *ha.ta*, collocation errors with other verbs were also frequent in mismatching the referent nouns and verbs, where the verb does not comply with the noun. See for example below:

- (223) So.thong.i an thong.ha.ta ($\sqrt{toy.ta}$).
 - 'Cannot communicate'
- (224) Yey.pay.lul tut.ta ($\sqrt{tu.li.ta}$) 'Attend a religious service'
- (225) Chin.kwu.ka thay.kwuk.ey (thay.kwuk.ey.se) khi.wu.ta (√ca.lass.ta). 'My friend **grew up** in Thailand.'
- (226) Thay.to.lul khi.wu.ta ($\sqrt{ki.lu.ta}$) '**Develop** a behaviour/attitude'

Some typical collocation errors of KFL learners reflect their failure to correctly collocate words for 'to make', 'to wear', 'to give', 'to receive', 'to have' and 'to cook' (Shin S-C, 2002; Kang M and Chang, 2014), but these were not so apparent in KHL learners from this study. Instead, there are some unusual collocation errors, such as example (223) where the word so.thong 'communication', which encompasses the word thong.ha.ta 'be able to communicate', has been used redundantly as in 'communication does not communicate well' instead of 'does not communicate well'. Example (224) may possibly be due to the phonetic similarity with tu.li.ta 'give, attend', especially when used in polite declarative form tu.lye.yo 'to have, give or attend' and tul.e.yo 'hear'. Other errors consist of the verb khi.wu.ta 'raise, breed (in a sense of growing or maturing)' in examples (225) and (226) as an alternative to ca.la.ta 'grow' and ki.lu.ta 'raise, breed' respectively, where these verbs are in the same semantic category meaning 'to grow' or 'raise'. Inaccurate collocation is generally considered to be directly related to L1 transfer (Zughoul, 1991), but there also appears to be some induced and intralingual influence as idiomatic collocations should be taught and learnt as a whole.

The following are examples of collocations that are contextually incorrect:

- (227) *Myeng.cel.ey si.kan.ul sey.wu.ta* (√*nay.ta*) '**Make time for** the traditional holiday'
- (228) Kiph.un kam.ceng.ul twu.ko (√kac.ko) ilk.ta. 'Read with deep feelings.'

In examples (227) and (228), the expressions *si.kan.ul sey.wu.ta* 'to make a timeline' and *kam.ceng.ul twu.ta* 'to put feelings on' respectively are correct collocations when used by themselves. However, when used in the above contexts, they express a different meaning which is contextually awkward. For example, the expression *si.kan.ul sey.wu.ta* means 'to make a timeline' for some plans, but in (227) the intended meaning is 'to make time for', which is *si.kan.ul nay.ta*. In example (228), *kam.ceng.ul twu.ta* means 'to put feelings on', but in this context it should be 'to have feelings' which is *kam.ceng.ul kac.ta*. While such errors reflect KHL learners' knowledge of collocative expressions, it shows that they need more explicit instruction to more effectively understand their different contextual usages.

6.3.8 Literal Translation

Errors in literal translation were not so apparent, and were mostly seen in the use of first person pronouns, as in the examples below:

- (229) Nay ($\sqrt{wu.li}$) en.ni.nun nay.ka khu.myen.se manh.un yenh.hyang.ul cwu.ess.ta. '**My** sister gave me a lot of influence when I was growing up.'
- (230) Cey (√ce.huy) hal.me.ni cip (tayk.ey) ol (kal) tey (ttay) ton.ul cwu.la.ko (tal.la.ko) hayss.ul.tey (hayss.nun.tey) cey.ka ton.i eps.ta.ko sel.myeng.ul hayss.sup.ni.ta.
 - 'When I was going to my grandma's house he asked me for money but I explained that I don't have any money.'
- (231) Cey (√ce.huy) si (tong.ney) ey.se a.cwu ywu.myeng.han to.se.kwan.i iss.sup.ni.ta.

'There is a very famous library in my town'.

Many learners of Korean literally translate first person pronouns as the concept of wu.li is different from the noun 'we, our' in English³². While the term 'we' or 'our' in English refers to something that can be shared, the term wu.li in Korean encompasses an in-group concept, where members of an in-group have properties they can share in common such as space, relationship and boundary (Lee H, 2007; Lee H-K, 2015). For example, nouns such as 'shoes', 'money' and 'mouth' have an exclusive and monopolistic relationship with the speaker and hence cannot be used with wu.li, whereas nouns like 'mother', 'school' and 'cat' can potentially form relationships with other members of the in-group. Although occasionally the first person singular pronoun is used to indicate an exclusive relationship with a noun such as 'my mother' or 'my sibling', it is usually considered awkward and unusual in Korean.

Some errors in first person pronouns appear to have been caused partially due to formal or phonetic similarity, as in the examples below:

- (232) Ci.kum.to ce.uy (√ce.huy) ka.cok.ha.ko yeng.hwa.lul po.nun nu.kkim.i ki.yek.ey (ki.ek.ey) nam.a iss.sup.ni.ta.
 - 'I still remember the feeling of when I watched movies with **my** family.'
- (233) Ce.ey (√ce.huy) ka.cok.kwa chin.ci.tul.i mo.ye.se ce.nun i nal.ul coh.a.hap.ni.ta.

school'

^{&#}x27;I like this day because **my** family and relatives get together.'

³² The Standard Korean Dictionary defines *wu.li* as a term used to indicate a close relationship to someone, when the listener does not have a higher social status than the speaker. E.g. *wu.li em.ma* 'my mum'; *wu.li ma.nwu.la* 'my wife'; *wu.li tong.ney* 'my town'; *wu.li hak.kyo* 'my

The humble first person singular pronoun *ce* with the genitive *-uy* becomes *ce.uy* or *cey* abbreviated, which means 'my' in humble form. Again, the general practice would be to use *ce.huy* 'our (humble)' instead of *ceuy* 'my (humble)', but these sound similar which may have added to the confusion. Consequently, this may also be a spelling error that comes from phonological confusion or lack of semantic knowledge about the difference between the humble form of 'my' and the humble form of 'our'. Nevertheless, this is classified as lexical error in this study as the lexical meaning and semantic boundary is clearly differentiated.

6.3.9 Code Switching

Errors of code switching are errors of misformation where the learner 'borrows' a lexical item from their L1 and substitutes it for a lexical item that they do not know in their L2. Code switching errors may be intra-sentential which occur within a sentence, or inter-sentential which occur between sentences as a whole. In this study, only intra-sentential code switching was identified, as in the examples below:

- (234) Se.yang mwun.hwa.uy khen.syep (kay.nyem) individualism ($\sqrt{kay.in.cwu.uy}$) i kong.tong.chey sayng.hwal collectivism ($\sqrt{cip.tan.cwu.uy}$) ul se.se.huy (se.se.hi) mil.e.nay.ko iss.ta.
 - 'Collectivism is slowly pushing away individualism, which is a concept of Western culture.'
- (235) Five Little Pigs.un (nun) London ($\sqrt{len.ten}$) ey.se si.cak.toyp.ni.ta. 'The story of Five Little Pigs starts in **London**.'
- (236) Han.kwuk ku.li.ko ho.cwu.uy yey.cel cha.i, sayng.kak.tul.i.na morals (√to.tek), ka.cok ki.tha tung.tung.uy cha.i.ka manh.ta.
 - 'There are still many differences in etiquette, opinions, **morals**, family etc. between Korea and Australia.'

The above examples show code switching between English and Korean words, where the learner has not attempted to provide a romanisation. Such errors were sporadic and show a definite interlingual interference where the learner is unaware of the Korean translation or transcription. The following examples below show code switching between romanised words:

- Yeng.hwa.to sayng.kak.ha.myen, sul.phun cak.myen.ey (cang.myen.ey.se)
 nu.kki.nun i.mo.shen (√kam.ceng) un, um.ak eps.i mos nu.kye.yo (nu.kkye.yo).
 'Even for movies, you can't feel the emotion you feel in sad scenes without music.'
- (238) Ci.kum.un woy.kwuk mi.ti.e (√may.chey) po.ta han.kwuk mi.ti.e (√may.chey) lul te cul.kye.po.ko iss.sup.ni.ta.

 'Now I enjoy watching Korean **media** more than foreign **media**.'
- (239) I.ya.ki.to ne.mwu coh.ko thu.swi.su.thu (√pan.cen) to iss.ess.e (iss.e.se) te.wuk.te coh.un chayk.i.la.ko sayng.kak.hap.ni.ta.
 'The story is very good and there is also a twist to it which I think makes it an ever better book.'

Errors in examples (237)-(239) occurred due to gaps in the learners' lexical knowledge in Korean where the learner has substituted the correct word for a romanised English word as an alternative. Most of the code switching errors, however, occurred with English words that are also used as loan words in Korean, as in examples (240)-(244):

- (240) Ye.le pil.ting.tul (√ken.mwul) ul sey.wu.ki wi.hay tho.ci kay.kan.ul ha.yess.ta. 'The land was developed in order to build many **buildings.**'
- (241) Nan.tha.la.nun phe.pho.men.su (√kong.yen) 'A **performance** called nan.tha'
- (242) Chak (chak.ul) ilk.u.myen.se khey.lik.the (√tung.cang.in.mwul) tul.i.lang kath.i wus.ko kath.i wul swu.ka iss.ess.ta.

 'While I was reading the book, I could laugh and cry with the **characters**.'
- (243) Phyeng.pem.ha.ko ca.yen.su.lep.key ca.ki (ca.sin) lul su.tha.il ha.si.nun(√kkwu.mi.nun) pwun.tul.to kyey.sip.ni.ta.
 'There are also people who like to style themselves with simple and natural looks.'
- (244) I chayk.un ilk.i.cang (il.ki.cang) su.tha.il (√hyeng.sik) lo sse.cye (ssu.ye) iss.sup.ni.ta.

'This book is written in a diary journal style.'

Although many of these words from English are recognised as loan words by the linguistic authority and quite often used by the general public, these words have equivalent ordinary Korean standard words that are widely used, thus this codeswitching is not necessary or supported.

6.3.10 Paraphrasing

Paraphrasing is when learners try to explain an intended word in unnecessarily long terms when they do not know or cannot remember the intended word. There weren't many errors of paraphrasing in this study, and a few of the errors are shown in the examples below:

- (245) *Tto ha.na.nun sayng.kak.ha.ki pang.pep* (√sa.ko.pang.sik) i.ta. 'Another is a **way of thinking**.'
- (246) (ca.yen) cay.hay.lo in.hay sal kos.i eps.e.cil ttay.ey.nun cek.sip.ca.tul.i cam.si.tong.an.man sal kos (√im.si.swuk.so) lul ma.lyen.hay.cwun.ta.

 'If you don't have a place to live due to natural disasters, then the Red Cross will provide a place to live for a short while (√temporary accommodation).'
- (247) *Ken.chwuk.ka.uy il (ken.chwuk) ul hal ke.ey.yo (ke.yey.yo).* 'I am going to do **the work of an architect (\sqrt{architecture}).**'

Words such as *sa.ko.pang.sik* 'way of thinking' in example (245) and *im.si.swuk.so* 'temporary accommodation' in example (246) may be perceived as difficult words by learners, and it appears that the learner was unaware of these terms. In example (247), *ken.chwuk.ka.uy il* 'the work of an architect' is awkward but semantically correct, and it seems that the learner was unaware of the fact that *ken.chwuk* is a noun but can be extended to verb by adding *ha.ta* 'to do', meaning 'architecture' and 'to build', respectively. There were also some errors in paraphrasing from word coinage, as presented in the following examples:

- (248) *i.min sa.lam.tul* (√*i.min.ca.tul*) 'Migrant person (√immigrant)'
- (249) *ywu.hak sa.lam* (√*ywu.hak.sayng*) 'Studying abroad person (√international student)'

In these examples, the suffixes -ca for 'person' and -sayng for 'student' are generalised to the noun sa.lam to indicate 'person'. These errors could be due to either learners' ignorance of such suffixes, or their unfamiliarity of the words i.min.ca 'immigrant' and ywu.hak.sayng 'international student', which have caused them to paraphrase by generalising. In addition, it also shows learners' venturing in apply what they have learned by overgeneralising it, which appears to be a countermeasure for their ignorance. Although the suffixes -ca and -sayng both are under the category of sa.lam 'person', it is important that learners are informed of their difference in use.

6.3.11 Word Coinage

Word coinage, similarly to paraphrasing, occurs when the learner does not know or cannot recall a word and hence combines any words that come to mind to convey the intended word. Again, not many errors were identified in this category. Some examples are shown below:

- (250) Ku.uy che.um ca.mwun.se ($\sqrt{ca.se.cen}$) 'His first **autobiography**'
- (251) *Il.in.i.co* (√*il.sek.i.co*)

 'To catch two birds with one **stone**'

In example (250), the learner has combined the Sino-Korean suffixes *ca* 'self', *mwun* 'writing' and *se* 'book' to create a word for 'autobiography' – a book written by self, instead of the actual word *ca.se.cen* 'autobiography'. Similarly in example (251), the Sino-Korean suffix *sek* for 'stone' has been replaced by *in*, which is assumed to be the Sino-Korean suffix for 'person' where the learner has intended the four-character idiom meaning 'one person catches two birds' instead of 'catch two birds with one stone'. Such errors appear to have occurred because the learner failed to retrieve these words, or because they are unaware of them and overgeneralised the usages of the Sino-Korean suffixes.

6.4 Summary

This chapter has analysed and discussed the high frequency lexical errors produced by intermediate KHL learners. The results were categorised into 11 lexical error categories based on their definitions from previous lexical error studies. The study identified errors of redundancy as the most frequent error category at 27.1%, followed by errors of simplication, semantic similarity, inappropriate honorifics, overgeneralisation, formal similarity, collocation and idiomatic, literal translation, code switching, paraphrase and word coinage.

There appears to be both interlingual and intralingual influence in the cause of such errors, as well as some teacher and material induced errors. Errors of redundancy and simplification are errors that may characterise KHL learners, reflecting their lack of

formal education and transfer of colloquial speech to writing. Errors of simplification show some interlingual influence in the omission of dependent nouns, which are absent or are usually unnecessary in English.

In mid-frequency, errors of semantic similarity are mainly induced, where the overreliance on dictionary definitions and lack of learner-friendly dictionaries appear to be the main cause. Some of the notable errors include those associated with the noun 'holiday', 'person', those associated with the verb 'to use', and those related to quantity. Inappropriate honorifics were mainly interlingual, with errors occurring due to the lack of honorific terms in English, but also due to the misunderstanding of speaker-addressee relationships and ignorance of humble form nouns. Errors of formal similarity occurred due to both interlingual and intralingual influence, where L1-influenced receptive skills and ignorance of meaning were considered as the main causes. Similarly, collocative errors also occurred due to both interlingual and intralingual influence, where lack of correspondence with English expressions appear to be the main cause.

Amongst low-frequency items, errors due to literal translation are almost entirely due to interlingual interference, which can be seen in the use of first person possessive pronoun 'my'. Errors of code-switching show learners to be borrowing a lexical item in English to compensate for a word that they do not know or cannot recall in Korean, hence show interlingual influence. Errors of paraphrasing and word coinage were very minimal, and appear to have occurred due to intralingual influence.

Overall, the results indicate a strong need for some effective learning support such as a dictionary suited for learners of Korean from English backgrounds, and a revision of teaching materials, especially in teaching vocabulary with similar semantic qualities and collocative expressions as they are difficult items for students to self-learn or understand.

CHAPTER 7 PEDAGOGICAL IMPLICATIONS

A thorough discussion of the results in previous chapters shows that English-speaking Korean Heritage Language (KHL) learners have distinct language characteristics, which exhibit specific pedagogical implications from an educational linguistics perspective showing the need for a KHL-specific pedagogy that separates KHL learners from Korean Foreign Language (KFL) learners. While there are limited studies that examine the different traits of KFL and KHL learner errors, some of the key findings in KFL studies and in this study provide information on the similarities and differences between errors of KFL and KHL learners and highlight such importance of a differentiated pedagogy. These are summarised in the points below.

- In orthographic errors, KHL learners show an overall tendency to write the way they speak, thus have trouble distinguishing between vowels and between consonants that are hardly distinguished by sound. For example, mismatch between ay and ey are a frequent error amongst KFL learners, but were also the most frequent orthographic error type amongst KHL learners in this study. However while KFL learners' errors mainly occur due to phonological similarity such as those between lax and aspirated, sound alterations due to nasalisation and liquidisation, and similar vowels like o and e; u and wu; and o and wu, KHL learners' errors in this study appear to be focussed towards those that are usually not distinguished by sound in daily context like ay and ey, and those that require knowledge of grammatical structures such as i.ey.yo/yey.yo or toy.e.yo/tway.yo and morphophonemic knowledge. This shows that unlike KFL learners, KHL learners require much more training in morphophonemic orthography and 'standard' Korean orthography which eliminates regional dialectal forms, colloquial pronunciations and idiolects, rather than on distinguishing between English and Korean sounds.
- (2) In grammatical errors, while both KFL and KHL learners commit the most number of errors in case particles, KHL learners committed more omission errors in this study, while KFL learners usually commit more substitution errors. This again shows how much KHL learners are influenced by spoken language, where case particles are usually omitted. In case particle substitution errors, which was also a significant group of errors, while the error types are

common amongst the two groups, KFL learners in previous studies show more difficulty distinguishing between nominative and accusative particles, while KHL learners in this study show are relatively lower frequency in this error pair but rather commit a large number of errors between genitive and locative-static particles, which are similar in sound in spoken language. Another notable difference in grammatical errors is that KFL learners show difficulty in grammatical elements overall such as in conjunctives and suffixes, while KHL learners' errors in this study were particularly focussed towards case particle errors. This shows that unlike KFL learners who are new to all aspects of the language, KHL learners possess an unbalanced or biased knowledge from acquiring the language in a home environment.

(3) In lexical errors, errors in redundancy and simplification were the most frequent amongst KHL learners in this study, which appear to be one of the least frequent amongst KFL learners. KFL learners on the other hand, commit the most number of errors in semantically and formally similar items, overgeneralisation and literal translation. While KHL learners also committed a high number of errors due to semantic similarity, the majority of their errors of redundancy and simplification again reflect the characteristics of spoken language, which isn't apparent in KFL learner errors. Thus an important aspect to consider when teaching KHL learners is on expanding their vocabulary span to fill the gaps that cause redundancy and simplification, in addition to devising a pedagogical method to assist them with distinguishing between similar meanings with different implicative and contextual usages.

The idea that Heritage Language (HL) and non-HLLs should be separated since the linguistic competency of HLLs is considerably different to second language (L2) learners is increasingly gaining support, but while many studies outline the benefits of a separate HL program, one of the major limitations in previous HL studies that claim such is that there is limited empirical evidence to support these claims (Kondo-Brown, 2003). In this respect, the study of learner errors can provide theoretical implications about the characteristics of English-L1 KHL learners' language learning and acquisition, which although do not intend to suggest any teaching strategies, pose strategic contributions for future research in building a theoretical framework for HL pedagogy.

The significance of a KHL-specific pedagogy emerges from KHL learners' particular error types that do not fit into either one of first language (L1) or second language (L2) language characteristics, but rather consisting of the language features of both an early L1 and L2 learner. For example, many of the orthographic errors resulting from a misunderstanding of orthographic conventions are similar to young L1 learners, while those resulting from a lack of knowledge in morphosyntactic structures are common amongst KHL learners but not prevalent amongst KFL learners. The most frequently committed grammatical case particle errors also partially reflect L1 learners' language use in transfer of spoken characteristics to writing, and partially KFL learners' errors which show overlapping error types in the substitutions between functionally close particles. Some of the most frequent lexical error types in this study such as overgeneralisation and simplification become apparent in L1 learners once they have had sufficient exposure to their language as a child, and other less frequent errors such as lexical extension, syntactic calquing and word order transfer are more apparent in L2 learners (Lynch, 2003).

The reason that HLLs possess some features of early L1 acquisition and some characteristics of adult L2 acquisition is because HL acquisition takes place in a bilingual environment rather than a monolingual one, which Montrul (2010a) describes as incomplete L1 acquisition that is "not uniform, not universal, and unsuccessful" (p.11). Such traits of KHL learners identified in this study are further supported by Montrul's (2010a:12) summary of the characteristics of L1, L2 and HL acquisition as shown in the table below, with HL characteristics in italics.

Table 32 Characteristics of L1, L2, and Heritage Language Acquisition

L1 Acquisition	L2 Acquisition
Early exposure to the language	Late exposure to the language
Abundant input in a naturalistic setting(aural input)	Varying amount of input in instructed and/or naturalistic setting (aural and written input)
Control of features of language acquired very early in life(phonology, some vocabulary, some linguistic structures)	Grammar may be incomplete (no chance to develop other structures and vocabulary)
Developmental errors	Developmental and transfer errors
Outcome is successful and complete	Outcome is variable proficiency. It is typically incomplete
Fossilisation does not occur	Fossilisation is typical

No clear role for motivation and affective factors to develop linguistic competence	Motivation and affective factors play a role in language development
More complex structures and vocabulary developed at school after age 5, when metalinguistic skills develop	Experience with literacy and formal instruction

As the table indicates, HL learners have early exposure to the heritage language, but while more complex aspects of the language are developed after age five for native speakers, HL learners make contact with the dominant language after this age but do not receive formal education to maintain their heritage language. Hence, while proficiency amongst heritage speakers in their heritage language varies considerably, typically the vast majority of heritage speakers have only achieved partial command of their heritage language which results in developmental and transfer errors, but acquire advanced aural and oral skills. In general, HL learners' errors reflect their limited access to formal education in their heritage language and their general pattern of language acquisition which usually consists of 'overhearing' from home or their heritage community. This is more apparent with minority languages like Korean since learners have even less opportunities to access the language outside of home.

This leads to the question of whether KHL learners can be characterised by general language traits that differentiates them from both L1 and L2 learners, which is important to establish in developing a curriculum for English-L1 KHL learners. A closer look at English-L1 KHL learners' error characteristics shows that there are indeed HL learner specific traits in orthographic, grammatical and lexical aspects. Their phonological competency has not been examined in this study, but their orthographic errors, when considering their tendency to write the way they speak, reflect their inability to distinguish between certain sounds unlike a native speaker, although some have resulted from their limited knowledge of morphosyntax. Claims that HL speakers have achieved native-like proficiency in speaking would often refer to fluency not accuracy, which, as a matter of fact, is not actually resemblant of a native speaker but just comparatively more 'native-like' than a foreign language learner.

In terms of grammatical competence, the error occurrence rate of case particles overall was 0.11 where the most significant error types ranged between 0.10 and 0.20, which shows that English-L1 KHL learners have not properly acquired 10-20% of

grammatical rules. However, in this particular study error rates were lower in general for most other grammatical types and categories, which shows that English-L1 KHL learners at intermediate tertiary level with some formal education may be more competent in producing grammatical rules accordingly. The effect of formal education on the improvement of KHL learners' errors needs to be further investigated in future research.

An investigation into the lexical errors identified in this study shows English-L1 KHL learners' capability of producing a diverse range of lexical items but mostly limited to casual and conversational domains as shown in some errors of semantic similarity and overgeneralisation. Code switching or lexical borrowing on the other hand, was not a significant error category, but rather than this being an indication of their capability to readily access words from their cognitive lexicon, a more reasonable explanation would be that it shows an attempt to produce sentences in Korean for lexical items that they do not know or are unsure of, as shown in the high frequency of redundancy and simplification errors which characterise their inability to produce clear and concise sentences and possibly avoidance strategies.

Finally, while a significant number of heritage language studies (for example, Valdés, 2001; Kondo-Brown, 2005; Polinsky and Kagan, 2007; Montrul, 2010a, 2013) support the fact that HL learners are generally more capable of producing spoken language at the community level, many errors identified in this study overall suggest that KHL learners experience difficulty with producing appropriate vocabulary in various written registers, such as in errors due to semantic similarity and inappropriate honorifics. While they may be able to differentiate between basic registers such as formal and informal grammar and vocabulary, it appears that they are less aware of such distinctions when it goes beyond literal forms and meanings, into implied social status relationships, implied positive and negative relationships, metaphorical or figurative expressions, or differences between colloquial expressions such as slang, and academic expressions in both written and spoken contexts.

The findings of this study greatly resemble, but do not fully agree with, Campbell and Rosenthal's (2000:167) working hypothesis on HL learners' linguistic characteristics, which show HL learners' phonological, grammatical, lexical and sociolinguistic traits that may potentially be generalised to the majority of the HL learner group, presented as follows:

- (a) HL learners' phonological traits almost completely resemble that of educated native speakers.
- (b) HL learners have acquired 80-90% of the grammatical rules of a "prestige dialect", which means that they have not acquired 10-20% of grammatical rules in accordance with "prestige dialect structure".
- (c) HL learners have acquired extensive vocabulary that is only limited to casual communicative language within the home and community, characterised by frequent code-switching between their heritage and dominant language.
- (d) HL learners can differentiate sociolinguistic rules for different registers, and also lexical and grammatical rules, used to communicate with their family and community.

Overall, the results of this study reflect Campbell and Rosenthal's (2000) hypothesis to some extent with some variability, which adds validity to the claims that HL learners have their own distinct language characteristics. Since the learning process of HL learners differs considerably to foreign language learners, it is posited that they do not fit into either classrooms and require a HL specific curriculum to support their needs to a maximum. This consists of recognising not only their language needs but also what levels of support are needed from the home, community, schools and government. Since English-L1 KHL learners in this study have also showed unique characteristics that need to be approached from a different perspective, it is important to establish the key issues and points to take into consideration when developing a KHL-specific pedagogy for KHL learners of English backgrounds. The following pedagogical implications limit to this particular group of learners, but may allow the inclusion of other HL groups in other contexts too. These include a discussion from three perspectives: (a) policy; (b) curriculum; and (c) classroom.

7.1 Policy Perspectives

Australia, being one of the most successful multicultural and multilingual countries, has strong potential to maximise its socio-economic benefits that bilinguals can offer, where HLLs can function as a valuable resource in this sense with further

appropriate formal education. There have, however, been many issues and gaps in Australian Government support of Asian languages, where language policies in the past generally revolved around languages with trade and economic significance, rather than a genuine interest in maintaining and promoting heritage languages in the community such as Korean. In the last several decades, a considerable development on language policy and planning in Asian languages was observed in the National Asian Languages and Studies in Australian Schools (NALSAS) (1994-2002) and National Asian Languages and Studies in Schools Program (NALSSP) (2008-2011) where Korean was formally identified as one of four priority languages, yet with the emphasis on economic prospects and not language learning in itself, policy development for heritage languages as a discrete group was not so seriously or sufficiently taken into account. It is not until recently in 2011 that a national curriculum for language learning development was proposed "to enable all students to engage in learning a language in addition to English" (Acara, 2011:4) and that HLLs were recognised as a subgroup of language learners, reflected in the introduction of the Korean Heritage course in the NSW Higher School Certificate (HSC) examination.

However, while Australian state government ³³ are supportive of heritage language learners through the provision of language learning resources and funds in primary schools and community language programs that cater for students from Language Backgrounds Other Than English (LBOTE) family backgrounds, this does not sufficiently extend to secondary or tertiary level heritage language programs where support is still biased towards background and foreign language learning³⁴. HLLs are not yet fully understood or recognised as a unique cohort to L1 or L2 learners, and while there have been significant developments over the last decade in heritage language education, policy makers are still highly dependent on the community to maintain and develop heritage languages, and there is a lack of policy to influence and improve public perceptions on heritage languages. In this respect, both the Australian and Korean Governments need to devise strategies to increase community

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³³ Primary schools that offer community language programs in NSW already support the needs of HLLs, but HLLs in regional areas are neglected in general. A crucial issue lies in consistency, clarity, transparency and communication.

³⁴For example, the NSW Saturday School of Community Languages offers secondary LOTE courses for Years 7-10, but there are a limited number of schools offering courses to Prelimiary and HSC students studying Korean as a Heritage Language.

understanding of the importance of learning the Korean language by raising awareness of the educational value as well as the economic, strategic and socio-cultural benefits that the Korean language can offer at individual and national levels (Shin S-C, 2010).

In addition, while initiatives like NALSAS and NALSSP highlight the prospects of the Korean language, their primary objectives are to increase the number of *Australian* students learning a Language Other Than English (LOTE) rather than encouraging language or cultural maintenance of HLLs. This hinders the development of the HLL cohort as there is a lack of a detailed goal or policy for heritage languages, which is especially important with the diverse range of cultural and linguistic background of HLLs. Language education policies need to take into consideration such diversity of HLLs, which involves financial and resource support for material, teacher and course development such as an integrated curriculum (F-12) with the community schools, tertiary outreach programs, summer intensive remedial courses etc., as a single heritage language course cannot satisfy diverse HLL needs (Oriyama, 2017). A nationwide Korean Language Working Party consisting of representatives from primary, secondary and tertiary personnel as suggested by the Shin S-C (2010) should develop a strategic plan for provision of and support for Korean heritage programs at all levels, in addition to Korean as a Foreign or Second Language programs.

7.2 Curriculum Perspectives

It is posited that HLA reflects both L1 and L2 acquisition, or conversely, are not entirely L1 nor L2 speakers, which reinforces the fact that they do not fit into neither one of the teaching methods. Kondo-Brown (2003:5) notes that university practitioners and administrators who offer separate courses for heritage languages and non-HL learners "seem to agree that bilingual HLLs (a) have linguistic skills that are beyond those which are typically developed by non-HLL equivalents in traditional foreign language programs, and (b) they are able to learn the target heritage language at a greatly accelerated speed."

In order to satisfy KHL learner needs, there is a strong need for the development of a KHL curriculum in secondary and tertiary institutions. Typical problems that may arise when a KHL learner is placed in an advanced KFL classroom is that they often feel discouraged when a KFL learner performs better in grammatical and

morphosyntactic areas, but the KFL learner feels disadvantaged by the KHL learner who may do better in conversational tasks. Placing KHL learners with non-KHL learners may thus hinder or prevent both KHL and non-KHL learners from improving and developing the language effectively.

Recently the development of a national curriculum for languages (F-10) was completed (Acara, 2016) for selected languages including Korean, and although it links learning Korean to a broader educational scope of not only economic but also personal, social, cultural, career and identity significance, it appears to be highly focused towards Korean as a Second or Foreign Language learning. Its stated learning outcomes outline the basic elements of Korean pronunciation, grammar and words with a focus largely on interlingual differences, but do not state an understanding of any intralingual distinctions that KHL learners typically experience difficulty with, such as semantically similar items, differences between spoken and written forms, differences between functionally similar case particles, orthographic conventions and so on. HLL related issues are currently largely left to community programs to address, but with the lack of funding, parental support and public awareness, community language programs cannot provide sufficient support for KHL learners and thus there is an urgent need for a state and national curriculum to reflect these issues.

Many issues revolve around developing a heritage language-specific curriculum, including diversity of students' language skills and backgrounds, student recruitment and retention, teacher recruitment and training, and teaching materials (Liu et al., 2011). Diversity of language skills is especially problematic with KHL learners as some of them are accustomed to dialectal variations, and with little to no formal language education, the majority of them have acquired an incomplete informal variety of the Korean language. As Kondo-Brown (2008) notes, learners of KHL seem to prioritise the acquisition of a formal variety. While the integration of appropriate KHL-specific materials is urgent in filling this gap, the development of materials that can accommodate all learners' needs remains a challenge due to their heterogeneous nature. The current national curriculum states under 'texts and resources',

"Learners will need explicit instruction and explanation of the grammatical system and features in order to be able to discuss, clarify and analyse the language and to compare it with English. Continuous scaffolding and feedback from focus-on-form approach during interaction support learners to revise and monitor their language. Support material and resources include, word lists,

visual organisers, images, audio recordings and dictionaries (used with teacher support)." (ACARA, 2016)

Although it is difficult to make conclusive or definitive recommendations as differences between KHL intra-groups has not been examined closely, there are definite indications from the results of this study and previous heritage language research that KHL learners may benefit more from a communicative approach rather than a focus-onform approach, and a mix of explicit and implicit instruction through materials that do not solely focus on grammar. In addition, although such approach stated in the current national curriculum may benefit KHL learners at early stages, KHL instruction needs to branch out to a more specific pedagogy in later stages in preparation for further studies at tertiary level, in order to resolve issues of student recruitment and retention. This will need to involve the development and integration of a Korean learner-specific dictionary and materials adapted to HLLs from various resources including those designed for native speakers. Because community language schools often lack appropriate teaching materials and qualified Korean teachers with adequate skills to address KHL learners' needs, it is crucial that the Korean language curriculum does not rely on such community language programs to foster KHL learning as it risks misguided instruction or fossilisation of errors.

7.3 Classroom Perspectives

It is now a prevalent finding that while HLLs are significantly more confident and proficient in phonetics and phonology than their morphosyntactic skills which need to be improved systematically. However, unlike the claim that heritage language teaching requires a strong focus on form to promote their weaker counterpart of the language, it may in fact be more advantageous to incorporate a communicative approach to make it more relatable to them. Lynch (2003) claims that a communicative, content-based approach would be most effective for HLLs as "the nature of acquisition for them has been dialogic, discursive and absolutely contextual from the beginning." (p11). The study further notes:

"Although there are veritable differences between many heritage language linguistic features and other L2 linguistic features, these must not blind us to the numerous similarities between the two groups, particularly at the morphological, syntactic, and lexical levels. There is no reason to believe that the principles and practices of communicative language teaching as put forth in SLA will not

benefit HLLs. ...At the same time, equal attention must be given to the adoption of L1 teaching techniques in heritage language classrooms, as Potowski (2002) has suggested. I agree with her idea that the most effective pedagogical approach to heritage language instruction would be one that integrates particular aspects of both L1 and L2 teaching methodologies." (p12)

While there are ongoing debates on the most effective method for teaching HLLs, further research is needed to build a framework of pedagogical theories and approaches towards heritage language learning and teaching, as HLLs possess a great degree of variability and diversity of individual needs in their language proficiency, educational and social background. For KHL learners in particular, results from previous studies are usually inconclusive and based on small data, and with the lack of research on the differences between KHL subgroups, it is difficult to make conclusive suggestions on KHL pedagogy.

Meanwhile, the results of this study can provide strong pedagogical implications for the general cohort of intermediate KHL learners, which indicate a need for a diverse range of pedagogical materials based on customised curriculum and pedagogical approaches, including Content and Language Integrated Learning (CLIL) and other innovative approaches such as the integration of a genre-based curriculum and pedagogy framework, though a focus-on-form approach should not be excluded as they may benefit from explicit instruction in certain areas such as case particles or error correction. Kim H-S (2008a) claims that pedagogical implications for HLLs should be discussed with the presumption that HLLs' language is not yet fossilised, and based on this idea, grammar-based instruction could have a significant contribution considering that they lack explicit meta- and rule-based knowledge to notice their own errors.

Several studies have discussed the effectiveness of implicit and explicit corrective feedback, where the general perception is that explicit feedback is effective for grammar errors for KFL learners. For example, Park (2007) found that both short-term implicit and explicit error feedback is effective in reducing KFL learners' form errors overall, but only explicit error feedback on specific grammatical errors was effective than implicit feedback. Jung J-Y (2010) also found that teacher's repetition which rules out explicit explanations, did not have any positive long-term effects on the improvement of beginner KFL learners' case particle errors, and notes that metalinguistic explanation should be accompanied to increase the effectiveness. For KHL learners however, Kim E-J (2002a) found that long-term corrective feedback does not significantly improve KHL learners' spelling, lexical or grammatical errors in

journal writings, but has a significant effect in discourse/pragmatic errors such as honorific errors. Although these studies have significant implications, there is little conclusive evidence on the most effective teaching method for KHL learners, and there still needs to be more research on what combination of pedagogical or corrective methods need to be introduced into the KHL classroom.

Either way, although results from this study do not reflect the language use of the whole KHL population, it implies strong recommendations for a content-based approach accompanied by grammar-based instruction where necessary, tailored according to classroom and learner needs and nature of content being taught. To investigate this further, more detailed pedagogical requirements need to be established at a macro level for the high difficulty items identified. This includes further discussion of the pedagogical implications that the significant errors identified in this study can deliver to the classroom more specifically at an orthographic, grammatical and lexical level. The next subchapters will thus attempt to deduce the issues of current pedagogical practices and implications from the results.

7.3.1 Orthographic Level

The lack of formal education amongst KHL learners is more problematic in orthographic acquisition than grammatical or lexical acquisition, as spelling development requires a combination of phonological, orthographic, morphological awareness and letter-name, letter-sound knowledge (Kim Y-S, 2010:140), where most of these are acquired via formal study of the written language. Furthermore, because HLA resembles incomplete L1 acquisition in a bilingual environment (Montrul, 2010a), fossilisation of recurrent spelling errors can occur in the process of heritage language learning if those errors are not explicitly corrected and noticed by learners, as incorrectly acquired orthography is usually difficult to improve (Lim, 2011).

The idea of 'correcting' spelling errors is more prominent than 'teaching' how to spell, where teaching correct orthography usually consists of learning implicitly through reading or explicit written presentation or correction of words by the teacher. Textbooks merely present the Korean alphabet at the beginner level and show how to combine single phonemes to make syllables, but overall do not place much focus on correct spelling alone. Since it is difficult to explicitly teach the spelling of individual words, a

particular remedial strategy needs to be devised, but not much weight is placed on orthographic pedagogy compared to grammar or vocabulary as it has relatively less impact on communication. Kim S (2013) claims that correct orthography should not be stressed which is agreeable to the extent that it should not discourage learners, but still there needs to be some more significance placed on orthographic pedagogy as spelling in Korean is not an isolated graphemic component but reflects knowledge of morphological structures and phonological shifts. Learners should be aware of the fact that no component of a language is mutually exclusive.

Based on the results of this study, it appears that pedagogical strategies for KHL learners need to be developed based on their lack of understanding of phonological variations and orthographic rules, and consequently their tendency to write according to what they perceive aurally. There are, however, still several unresolved issues in current pedagogical methods. First, there isn't a specific solution developed for KFL or KHL learners so far, and most studies on orthography teaching are targeted at native speakers. Second, in studies targeted at KFL or KHL learners, most of their suggestions are quite generalised where they do not suggest specific approaches for particular error types. Third, any pedagogical suggestions or implications discussed by previous studies do not appear to have been reflected in textbooks, and remain largely the teacher's intuitions and responsibility within classrooms. Several suggestions have been made by previous studies, but there does not appear to be a clear solution for such recurrent errors. For example, Choe Yoon (2007) suggests six main approaches for KHL learners' orthographic errors that could be incorporated into improving on the errors identified in this study, including (a) distinguish phonetically close vowels by mouth shape and structural aspects; (b) distinguish phonetically close consonants by highlighting the effects they have on the meaning of a word; (c) teach by orthographic conventions; (d) distinguish between semantically different homonyms; (e) explicitly teach irregular nouns and verbs; and (f) explicitly teach revised orthographic rules. Several other studies such as Pyun and Lee-Smith (2011) and Kim S (2013) also give similar suggestions for orthographic pedagogy for KHL learners, but while these ideas give a comprehensive outlook on general pedagogical methods, they must be tailored to suit frequent individual error types. Based on such suggestions, the following sections will present some implications for the most significant orthographic errors identified in this study.

7.3.1.1 Distinguishing Phonetically Similar Phonemes

One of the most recurrent errors produced amongst both native and foreign/HLLs is the substitution between *ey* and *ay*, and similarly in *way*, *oy* and *wey*. In particular, the confusion between *ay* and *ey* poses as a particularly significant error in this study, which strongly supports the results of other previous studies (e.g. Shin S-C, 2017) that address Korean language learners' orthographic errors. The weight of this error is apparent in all levels of learners, including native speakers, which shows the significance of developing a strong pedagogy for *ay* and *ey* orthography. Looking at Choe Yoon's (2007) suggestions, the idea of distinguishing similar vowels by mouth shape and structural aspects is hardly applicable for these two vowels considering the fact that they are pronounced as the same phoneme in modern Korean, and furthermore, trying to correct these errors through dictation tasks is laborious and tedious task (Lim, 2011). To compensate for these weaknesses, Lim (2011) suggests four main methods for orthography pedagogy, the first based on grammatical knowledge, the second based on vocabulary knowledge, the third based on grammatical structure, and the last based on diphthongs.

Lim's (2011) suggestions, however, are somewhat limited to professional or native speakers, possibly inefficient for intermediate foreign or HLLs. For example, the study suggests using grammatical knowledge to teach the difference in kay and key in words such as cci.kay 'hot pot', ttu.kay.cil 'knitting', ci.key 'Korean A-frame', cip.key 'a clip' etc., by making rules that limit their use to certain words, for example, that most nouns derived from verbs are used with -kay with the exception of words such as ci.key 'Korean A-frame', cip.key 'a clip', ttu.key.cil 'knitting' and mwu.key 'weight'. This method may be effective for L1 speakers, but for L2 or HLLs who have limited knowledge in word origins or classifying words by class, it is likely that this would arouse more confusion. In addition, teaching based on vocabulary knowledge by distinguishing ay and ey in minimal pairs that have distinct meanings will only be effective if pointed out explicitly by the teacher, and thus although several studies also address this method, it appears more effective for error correction rather than teaching considering its time and scope limitations within the classroom. For example, teaching learners that key 'crab' is different from kay 'dog' and that mey.ta 'to carry' is different from may.ta 'tie (a knot), weed (a paddy)' may be effective for those particular words,

but given that there is only a limited number of homonyms consisting ay and ey, this method alone does not provide an adequate solution for all errors of ay and ey.

A more plausible method for KHL learners from Lim's (2011) suggestions, would be to implement vocabulary-based teaching with a specific focus on *han.ca* phonemes, and teaching focused on grammatical structure. Since Sino-Korean words comprise approximately 60% of the Korean lexicon, associating *han.ca* phonemes, but not the *han.ca* character itself, with words within the same semantic group may assist learners with constructing connections between the graphemic and phonemic characteristics of a syllable with words within similar conceptual or semantic groups. For example, if learners are taught that the syllable *ay* in *ay.in* 'lover' is the character *ay* for 'love', it would be easier for them to associate the spelling and meaning in other words related to 'love' such as *ay.ceng* 'affection, *yen.ay* 'date' etc. This will then allow learners to map the meaning of the word to how it sounds, giving them space to predict the spelling of a word when they are unsure. Consequently, learners will become aware of the importance of correct orthography if such semantic aspects are stressed.

Unlike the vowels ay and ey, vowels such as oy, way and wey are of a structural concern as well, where there exists more than just the problem of distinguishing between their sounds. Firstly, it is almost impossible to tell the difference between oy and way, where it may even be primarily difficult for the teacher to distinguish these sounds as native speakers rarely separate their usage. Secondly, the errors of the mismatch between oy and way in this study occurred mainly due to their structural ignorance, where learners did not recognise that twayss.ta 'became' is an abbreviated form of toy.ess.ta. Semantic features can also be highlighted for the vowel pair way and wey in words such as weyn.il 'what matter', where KHL learners often confuse the spelling for way 'why' (Choe Yoon, 2007), although this was not a significant error in this study.

Phonetically similar consonants such as lenis, tense and aspirated counterparts of stops and fricatives are also of particular interest in previous orthographic studies (for example, Shin S-C, 2001b; Pyun and Lee-Smith, 2011), where it is suggested that it would be more effective to highlight the effects they have on the meaning of a word. For example, such studies suggest that learners should be taught that lenis *sal* 'flesh, fat' is different to tensed *ssal* 'rice', and that lenis *ca.ta* 'sleep' is different to tensed *cca.ta* 'salty' and aspirated *cha.ta* 'cold' etc. Outlining such semantic differences may increase

learners' awareness of the importance of correct orthography, and may be helpful for a short-term or remedial teaching, but on a longer-term process of learning it would be more beneficial for them to notice and learn themselves by reading as many texts as possible as specifying individual errors has time and scope limitations. Dictation may also be accompanied to improve visual-aural skills in distinguishing between the similar sounds, especially between high occurrence error *s* and *ss* which appears to be particularly difficult for learners with an English dominant background.

7.3.1.2 Phonological Variations and Morphology

Because a large number of high occurrence and high frequency errors occurred due to phonemic transcription of sound shift-affected consonants, it would be particularly effective to teach by orthographic conventions rather than simply focusing on a list of most commonly misspelled words (Pyun and Lee-Smith, 2011). Since the findings of this study agree with previous heritage language studies that KHL learners over-rely on aural cues, it is essential that they can develop an awareness of grapheme-phoneme relationships. This again can be improved through dictation exercises as shown in Pyun and Lee-Smith's (2011) study on KHL learner's orthographic errors, after thoroughly discussing each error category (e.g. aspiratisation, consonant assimilation, palatalisation, liquidisation etc.), which would allow them to expand on their morphophonemic knowledge and hence promote learners to visualise words by orthographic rules. It is, however, especially important that learners are only aware of the rules and underlying morphemes and not required to memorise the rules, as it may discourage and mislead learners into neglecting the priorities of language learning (Kim S, 2013).

In addition to teaching by orthographic conventions, learners also need to be aware that there exist homonyms due to sound alteration in order to understand the importance of applying correct orthographic rules. The importance of underlining such homonyms is to increase learners' awareness of the associations between spelling and meaning and to reduce their reliance on sound. This is especially the case for words affected by coda neutralisation and silent h in the coda, which was one of the main causes for high occurrence and high frequency error types in this study. For example, the high frequency mismatch of sentential negation marker anh and an occurred when it

came before the consonant ng, such as in the mismatch between anh.a.yo 'is/does not (v.)' and an.a.yo 'hug, cuddle' which sound the same. Mismatch between anh and an was also identified as a high frequency error in previous KHL studies such as Choe Yoon (2007), hence requires special attention. Learners need to be aware that anh and an are not used interchangeably and that h in the coda causes sound shift before other consonants such as in anh.ta (pronounced an.tha) or anh.ci.man (pronounced an.chi.man), so that they can correctly distinguish between the two by both meaning and sound. Other homonyms due to sound shift also require attention, although not identified as significant examples in this study, such as in kos 'place' and kot 'soon' or kath.ta 'the same' and kass.ta 'went', and those due to palatalisation such as in ka.chi 'value' and kath.i 'together' or pwuth.ye 'stick together' and pwu.chye 'send (a letter)'.

Finally, irregular words that do not follow conventional rules need to be taught explicitly by individual words. A frequently occurring error of this type is the confusion of the use of the determiner myech 'how many' with the noun il 'day', where 'how many days, date (of the month)' is written as mye.chil and not myech+il. Learners should be informed that this orthography follows the widespread pronunciation in $myech.wel\ mye.chil$ 'date and month', as writing myech.il by the determiner would be pronounced as mye.til according to palatalisation which is not the 'standard' pronunciation. The same applies to revised orthographic rules which should be taught explicitly, where KHL learners may have implicitly learnt some spelling from their parents, who may have been using unregulated orthography before the new revised Korean orthography came effective in 1989. Examples of such include $*ku.lel.kkey(\sqrt{ku.lel.key})$ '(I) will (do) that' or the deferential declarative ending *-up.ni.ta($\sqrt{-sup.ni.ta}$).

The most important aspect to consider when teaching or correcting spelling is to associate it with vocabulary and grammar knowledge so that learners do not regard them as mutually exclusive components of the Korean language. It should be noted, however, that like Kim S's (2013) study claims, teaching 'correct' orthography should not be the absolute standard for what is considered as 'perfect' acquisition of a language, and to some extent should be left to learners to realise and internalise through activities, rather than getting unnecessarily carried away with identifying individual errors.

7.3.2 Grammatical Level

Teaching grammar is by far one of the most discussed areas of both first and second language teaching due to its complex and multifaceted status. Two ongoing contrasting positions on grammar instruction is whether grammar should be taught explicitly or implicitly, that is, whether some focus on form is necessary, or whether learners should learn grammar implicitly through meaningful tasks. For HLLs, the complexity increases as they only have partial command of the language, with a greater part of the group having achieved a higher proficiency in spoken fluency, but lack accuracy in both spoken and written forms.

In order to develop an appropriate pedagogy of grammar instruction for HLLs, a distinction between their grammatical knowledge and grammatical ability needs to be discussed. Richards and Reppen (2014) note that grammar learning and teaching consists of grammatical knowledge, that is, the knowledge of grammatical rules that account for grammatically correct language, and grammatical ability which is the ability to use grammar to communicate in both spoken and written contexts. The study notes that students often develop good grammatical knowledge through traditional teaching methods that focus on explicit presentation of grammatical forms, but lack the ability to use such grammar according to appropriate communicative contexts. In the case of HLLs, they develop good grammatical knowledge in the casual context but have insufficient knowledge in written or formal contexts due to their lack of formal education instructed in the language, and although they have high fluency in casual communication, they lack the ability to differentiate and apply the grammatical items that they have acquired appropriately according to different written and spoken text types, registers and contexts. Thus when it comes to deciding which approach would be best for teaching grammar to HLLs, teachers often encounter barriers due to their ambiguous position in language acquisition.

While many studies such as Krashen (1993) claim that explicit teaching methods in grammar cannot develop learners' language competence in producing the language accurately and fluently, Hu (2012) notes that some languages such as Chinese and Japanese are most effectively learned through explicit grammar instruction. In fact many Korean language classes still implement traditional teaching methods for both vocabulary and grammar, as some grammatical elements in the Korean language such as case particles are often difficult for the learner to learn implicitly just by reading or

using texts. However, unlike Korean Foreign Language (KFL) learners, Korean Heritage Language (KHL) learners are challenged with differentiating their knowledge of spoken forms from written forms, and traditional teaching methods that do not provide sufficient exposure to a communicative practice-based learning approach may not be enough to satisfy their language needs. It is most important that grammar instruction for KHL learners is adequately proportioned between a focus on rules and application of such rules to develop and increase communicative ability and performance (Richards and Reppen, 2014). Richards and Reppen (2014) proposes the following twelve principles that focus on acquiring grammar within context throughout their study.

- (a) Identify the grammatical resources that learners need
- (b) Teach awareness of the nature of texts
- (c) Develop awareness of differences between spoken and written language
- (d) Use corpora to explore texts
- (e) Use a variety of teaching approaches
- (f) Provide opportunities for guided noticing
- (g) Provide opportunities for meaningful communicative practice
- (h) Provide opportunities for students to produce stretched output
- (i) Make links between grammar and vocabulary
- (j) Use student errors to inform instruction
- (k) Integrate grammar with the four skills
- (l) Use resources of the internet and technology

While all these principles may serve as an important resource for developing KHL pedagogy, the first three principles are of particular concern to this study. These principles highlight the importance of teaching the distinctions of grammar between spoken and written forms, to increase the ability of learners to use and differentiate grammar appropriately according to different spoken and written texts, and also increase their awareness of how social context affects the use of language. One of the main differences to note between the nature of case particle errors between KFL and KHL learners is that while KFL learners' case particle substitution errors primarily result from the misunderstanding of the functional and semantic functions of those particles, KHL learners' errors partially result from their inability to distinguish between spoken and written forms, which is reflected in the high number of omission errors in this study. One of the reasons for such difficulty in acquiring case particles appears to be partially due to the fact that case particles are often dropped in speech (Montrul, 2010b), and

having acquired the language primarily by aural means, case particles become one of the common errors that are substituted or omitted, especially with the more frequently omittable particles such as nominative -i/ka, accusative -ul/lul, topic-contrast -un/nun and locative particle -ey. Although not many case particle errors identified in this study were caused by transfer of speech to writing, the KHL learners appear to have acquired a simplified system of case particles used in spoken contexts which may account for the difficulty they experience with case particles in written contexts which require a more diverse and complex system. There is, therefore, substantial significance in developing KHL-specific grammar pedagogy.

However a crucial problem is that there is a dearth of research on specific grammar pedagogy for KHL learners, despite the recurrence of certain error types identified by previous studies (Shin S-C, 2006c, 2008; Kim J, 2009b). Furthermore, the fact that these errors have been persistent with learners despite the increasing number of research investigating their cause shows that there is an underlying problem in the current pedagogical methods and suggestions. The following sections thus discuss the most significant case particle substitution errors of this study, identifying the current pedagogical issues and implications drawn from the results.

7.3.2.1 Nominative -i/ka and Topic-contrast -un/nun

The substitution between nominative -i/ka and topic-contrast -un/nun was the most noticeable error in this study. There have been a vast amount of studies outlining the functional differences of the nominative -i/ka and topic-contrast -un/nun in both native and KFL studies. The 'intimacy' of the two particles that contributes to learners' confusion is well-known, and consequently there has been much research on the pedagogical strategies and curriculum development in relation to the two.

There are, however, several issues with the current suggested pedagogical strategies in teaching the nominative -i/ka and topic-contrast -un/nun. Yi (2013:408-409, 422) argues that the problem lies in beginner level textbooks. The study outlines several issues:

(a) Current Korean language textbooks focus on the functional and graphemic characteristics of nominative -i/ka and topic-contrast -un/nun, but a semantic and contextual approach of the two are quite limited.

- (b) Teaching the nominative -i/ka and topic-contrast -un/nun is quite complex, but they are introduced at the beginner level where the scope of metalanguage that can be used to describe the two particles is very limited, and so the more complex usages cannot be dealt with at this level. The problem is that these two particles are rarely revisited by textbooks at more advanced levels, and it is expected that the more specific distinctions be outlined by class teachers.
- (c) More specifically, 'new information' or 'specific' functions of the nominative *i/ka* is rarely taught in textbooks, which would have limitations in understanding the full meaning and usage of the nominative -*i/ka*.
- (d) There is a lack of explanation on the differences of the nominative -i/ka and topic-contrast -un/nun.
- (e) There is a bias towards the usages of nominative -i/ka and topic-contrast -un/nun in simple sentences in textbooks, but this needs to be expanded to conversational usages too, as their meaning can be differentiated by their different contextual usages.

In other words, the study emphasises the need for a focus on the semantic and contextual usages of the two particles rather than a solely functional approach, and that this should be spread out amongst different levels with both written and conversational examples. Kim H and Kang (2010:35) also note three notable issues related to the representation of nominative -i/ka and topic-contrast -un/nun in textbooks used by Korean language education institutes as the following: (a) There is a relatively detailed explanation of the topic-contrast -un/nun, but the explanation of the nominative -i/ka is insufficient and is dependent on class teachers to explain; (b) Both the nominative -i/ka and topic-contrast -un/nun are introduced before learners are aware of conjunctives, but these particles are not re-explained in detail even after learners are taught embedded sentences; and (c) Most beginner level textbooks give examples of the usages of nominative -i/ka and topic-contrast -un/nun in forms such as N-i/ka a.ni.ta '...is not N' or N-i iss.e.yo/eps.e.yo 'there is N' etc., but none of these textbooks explain the 'meaning' of the two particles in embedded sentences.

In general, there appears to be an inconsistency between textbooks and lack of further explanation in upper-level textbooks in delivering the grammatical functions and meaning of the nominative -i/ka and topic-contrast -un/nun, causing gaps in current

pedagogical methods. Many studies suggest teaching by rules, forms or functions rather than by isolated particles out of context as the two particles have overlapping functions that can only be differentiated by their sentence structure or context, but as Kim H and Kang (2010) note, teaching by forms or rules is not sufficient enough as it does not incorporate the 'semantic concept' of the particles and why they should be used in such forms. One of the prevalent ideas across many recent studies is to teach the two particles by meaning, presented in the following table (Yi, 2013:423).

Table 33 Semantic functions of nominative -i/ka and topic-contrast -un/nun

Nominative -i/ka	Topic-contrast -un/nun
(a) Subject marker	(a) Topic marker/General introduction
(b) Specific	(b) Contrast
(c) New information	(c) Old information
(d) Exclusiveness	(d) Generic

It is suggested that teaching by these meanings provide a better idea of their contextual usages, rather than the complex linguistic explanations. However, while such method can show the broad distinctions between the two particles, it should be noted that teaching by forms should not be excluded, as a focus on meaning is a broad concept that KHL learners may find difficult to understand without any further linguistic or contextual explanation for the particles -i/ka and -un/nun which share a close functional relationship, and further does not incorporate usage restrictions. In addition, this idea may be effective in beginner level KFL classes where learners only produce short, simple, and often incomplete sentences, but will most likely cause confusion in intermediate or advanced level KHL classes where more complex sentences are produced. In regards to this issue, Kim C-S and Nam (2002:41-44) provide a detailed explanation of the contextual usages of nominative -i/ka and topic-contrast -un/nun(refer to Table 28), which are explained in more detail in the table below.

Table 34 Contextual usages of nominative -i/ka and topic-contrast -un/nun

Nominative -i/ka	Topic-contrast -un/nun
(a) New information (-un/nun for	(a) Noun sentences (-i/ka when the
contrast)	focus is on the subject)
(b) Adjective and intransitive	(b) Talking in first person (-i/ka
sentences (-un/nun for contrast)	when the focus is on the subject)
(c) Imperative, requestive and	(c) Talking about a fact (-i/ka when

- exclamatory sentences (-un/nun for contrast)
- (d) Subject of predicates connected with -keyss.sup.ni.ta 'I will...' and -ul.kka.yo 'Shall we...?' (-un/nun for contrast)
- (e) Asking or answering questions with a focus on the subject (Which, what kind of, what, when, why)
- (f) Dual subject sentences are in the form '-un/nun -i/ka (predicate) (-un/nun for contrast)
- (g) Subjects in embedded sentences
- (h) In sentences with *-eyse* 'because ...', *-u.myen* 'if ...', *-ul ttay* 'when ...', used with the subject of the first clause if the subjects of the first and second clauses are different.

- the focus is on the subject)
- (d) Dual subject sentences are in the form '-un/nun -i/ka (predicate) (-i/ka when the focus is on the subject)
- (e) Old information
- (f) Talking about two or more by contrasting.
- (g) In sentences with -eyse 'because ...', -u.myen 'if ...', -ul ttay 'when ...', used when the subjects of the first and second clauses are the same.

Kim C-S and Nam's (2002) definitions of the usages of the two particles illustrate the differences between nominative -i/ka and topic-contrast -un/nun well, and when presented with examples, it could work as an effective method to underline the differences that learners may be confused about. However, although KHL learners may possess some innate knowledge of such case particles, the differences in meaning, form and usage of the nominative -i/ka and topic-contrast -un/nun still pose as one of the highest difficulty items for them. Without abundant repetitive practice, therefore, it will do little to improve their ability to spontaneously use the appropriate particles in any context. In particular, since KHL learners at tertiary level rarely start their formal education from beginner level where most case particles are introduced, there must be a series of lessons devoted to these particles over time in the course of the program. Kim C-S and Nam (2002) additionally note that more research is needed in specifying such pedagogical methods rather than discussing which to utilise first.

When considering KHL pedagogy in particular, there is a need to incorporate pedagogical methods designed for native speakers too, as KHL learner errors reflect some young native speakers' error characteristics. A focus needs to be put on taking advantage of their innate language characteristics acquired at a young age, rather than just merely concentrating on correcting their errors. It is important to understand that

KHL learners are those who possess some innate knowledge of case particles, and a pedagogy developed for them needs to make use of their already-acquired knowledge.

On native speakers' perception of the particle -un/nun and -i/ka, Kim M-H (2011) notes that native speakers have an intuitive ability to distinguish between the two particles, and thus claims that in order to fully understand the grammatical concepts of the nominative -i/ka and topic-contrast -un/nun, there is a need to examine the basic premises of the two particles which is comprehended by intuition, and the grammatical/pragmatic functions and implicative usages within context that emerge from the basic premises. Since KHL learners encounter a more complex and extensive range of the Korean language outside of the classroom, they need to be able to interpret and produce the two particles at a pragmatic level, that is, be able to comprehend the implicative usages that occur in various contextual situations, in addition to what emerges on the surface.

The basic premises of the nominative -i/ka and topic-contrast -un/nun define whether it is the subject or the predicate of the sentence that is fixed in the speaker's cognition, that is, whether the focus is on before or after the particle, and with this in mind the speaker selects a 'sister' predicate or subject respectively. This idea is shown in Kim and Nam's (2002) list of grammatical functions of the two particles in Table 34 above, where the study notes whether to use the nominative -i/ka or topic-contrast - un/nun depending on the focus of the sentence or whether the sentence implies contrast or not. From another perspective, Kim M-H (2011:55,59) presents the following information about the two particles.

Table 35 Basic premises of nominative -i/ka and topic-contrast -un/nun

Nominative -i/ka		
Basic premises	A (B/C)-i/ka P*	
Information function	Subject selective focus	
Grammatical function	Nominative	
	By expressing 'A-i/ka P', there is the meaning of	
Implied meaning	'selective designation' when the subject A is	
within a	cognitively recognised within the relationship	
sentence	between the unselected subjects B and C by the	
	listener.	

Topic-contrast -un/nun		
Basic premises	A-un/nun P (Q/R)*	
Information function	Predicate selective focus	
Discourse function	Expressing topic	
Implied meaning within a sentence	By expressing 'A-un/nun P', there is a contrastive meaning 'Not A-un/nun Not P' when the unselected predicates Q and R are cognitively recognised by the listener.	

^{*}A=Subject; P=Predicate; B/C=Sister subjects; Q/R=Sister predicates

Kim M-H (2011) claims that the nominative -i/ka is used when the predicate is fixed in the speaker's cognition and the subject is chosen from its sister subjects. This holds the implicative meaning of 'selective designation' that the subject that was chosen was selectively chosen from other possible subjects expressed within the sentence. On the other hand, the topic-contrast -un/nun is used when the topic is fixed in the speaker's cognition and the predicate is chosen from its sister predicates. This also can imply contrast as it makes the listener recognise the unchosen predicate. For example, In yeng.i.ka kass.ta 'Yeongi (in particular) went', the predicate kass.ta 'went' is fixed in the speaker's cognition and as it can imply that another person other than yeng.i went, it indicates selective designation. In yeng.i.nun kass.ta 'Yeongi went', the speaker is talking about the topic 'yeng.i' whether she went or did not go, and by saying that she went, it simultaneously makes the listener recognise the unchosen predicate 'didn't go', which can imply contrast such as chul.swu.nun an kass.ta 'Chulsoo did not go'. The study further notes that the basic explanations of the two particles that distinguish them by new information, old information, emphasis, selection etc. cannot explain all usages of the two particles, but the basic premises applies to any situation. However since this is a very complex and abstract concept to understand, learners may benefit from an implicit presentation of this concept by explaining how the meaning and implied context differs according to the particle used, though explicit explanation that can point out their erroneous uses and clarify the correct usage may also be helpful for young adult KHL learners who often utilise analytical learning methods. Whether the learning of case particles by explicit explanation would be more effective than learning by implicit consciousness-raising is another matter that should be investigated in future research.

7.3.2.2 Accusative -ul/lul and Nominative -i/ka

The accusative -ul/lul and nominative -i/ka is one of the most frequently discussed particles in Korean linguistics and Korean language education, not only because it is a common error, but also because of the interesting syntactic structure of the accusative -ul/lul, particularly in dual subject sentences. The results of this study indicate that KHL learners certainly possess similar characteristics as KFL learners, which is supported by previous KFL studies that identify some of the same error types of the nominative-by-accusative particle substitutions as the ones committed by KHL learners in this study. While this shows that the learning process of KHL learners is similar to KFL learners from the same language background in some ways, it also may be an indication that the current pedagogical methods and materials are inadequate for KHL learners in a way that it limits their potential to a classroom environment designed for KFL learners. In addition, despite the fact that KHL learners acquire some basic knowledge of the Korean language before they start formal education, they still produce similar errors to KFL learners, because case particles are only explicitly taught at the beginner level and for KHL learners who usually begin their formal education at the intermediate or higher level, they do not receive sufficient input regarding various or correct usages of case particles.

In order to establish the pedagogical needs and implications in teaching the nominative -i/ka and accusative -ul/lul to KHL learners, there is a need to determine the specific issues of current pedagogical methods and materials. There are many arguments about how to teach learners the accusative -ul/lul and nominative -i/ka but rarely do these studies discuss a detailed linguistic explanation for the causes, especially beyond the beginner level. Studies such as Kim C-S and Nam (2002) and Cho IJ (2006) provide a detailed analysis of the characteristics of learners' accusative and nominative case particle substitution errors, but are focused towards a comparative analysis between English and Korean. Shin S-C (2006c:60) states that "an English-oriented presentation of Korean sentences produces further confusion for students and does not work with some other structural patterns", and proposes Korean-oriented English sentence constructions as an alternate pedagogical strategy. Pak (2007) provides a comprehensive analysis of the functions of the particles -i/ka and -ul/lul and provides some pedagogical suggestions, but while the study shows different contextual usages and sentence

structures of the two particles, it fails to address why these particles are used in such ways and how the particles affect the meaning of sentences in interchangeable contexts.

The problems unfold as a matter of (a) content limited to beginner level textbooks; (b) lack of explanation about the reason for using the nominative or accusative particle in certain contexts; (c) lack of explanation of the semantic relationship between two successive noun phrases of the accusative or nominative particle; (d) English-oriented teaching for English-L1 learners; (e) teaching the particles in lump grammatical forms without further explanation or practice of extensive usages in upper levels; and (f) lack of distinction between written and spoken structures using the accusative and nominative particle. The main problem is that most studies focus on outlining the errors without an explanation for their cause, or that they pinpoint the pedagogical problems but do not offer a specific solution to them, which thus makes it difficult to establish a comprehensive pedagogical methodology for teaching the nominative -i/ka and accusative -ul/lul. With many issues unresolved, it is appropriate to investigate the pedagogical methods required to teach the particles effectively. Although a pedagogy focused on high frequency errors may seem favourable, merely examining the high frequency error types will not provide a comprehensive guideline that underlines all functions of the nominative and accusative particles, and thus ideally all aspects should be covered over a series of courses, with a particular focus on high frequency errors.

There are a few pedagogical implications for the nominative -i/ka and accusative -ul/lul based on the characteristics of errors in this study and suggestions from previous studies. First, as with other particles, the accusative -ul/lul should be taught progressively across all levels. Although nominative-by-accusative substitution errors were more significant than accusative-by-nominative substitutions in this study, it is necessary that learners know the specific functions of the accusative -ul/lul and understand why they cannot be used in place of the nominative -i/ka in certain contexts. This is particularly important as the accusative particle has much broader usages than the nominative particle, and requires more complex explanations for exceptional cases where -ul/lul does not act as an 'object' particle in more complex sentences, especially in dual-subject sentences (Eom, 2002; Pak, 2007). Take a look at the following examples.

(252) min.wu.ka hak.kyo.lul kan.ta.

'Minwu is going to school.' (Pak, 2007:391)

(253) hyey.lim.i.ka chwun.yong.i.lul kong.won.ul tey.li.ko kass.ta. 'Hyelim took Chunyong to the park.' (Eom, 2002:181)

The above examples are subject to controversy, whether the accusative *-ul/lul* can be considered as an 'object' particle. This is shown by the fact that the sentences cannot be converted to passive verb sentences, as the following.

- (252') *hak.kyo.ka min.wu.ey uy.hay ta.nye.cin.ta. (?)The school is being gone by Minwu'
- (253') *kong.won.i hyey.lim.i.ey uy.hay cwun.yong.i.lul tey.li.ko ka.cyess.ta. '(?)The park is been taken Chunyong by Hyelim' (Eom, 2002:182)

Since many of the errors in this study occurred due to the misinterpretation of 'object' in the sentence, there is a need to teach the accusative -ul/lul in different ways that do not rely on the definition of 'object particle' in upper levels. This means that teaching the accusative particle requires a systematic approach starting from the basic syntactic explanations based on 'object' and 'transitive verb' indicator, that later branch out to semantic explanations in upper levels. Both Pak (2007) and Eom (2002) note that there are quite a number of cases where the particle -ul/lul does not function as an accusative particle, and rather defines it as a 'special' particle. In other words, while the accusative -ul/lul is an indicator of 'object', it also holds semantic properties in that it specifies a semantic relationship within a sentence (Eom, 2002). This is similarly the case for the nominative -i/ka too, where there is some criticism with defining the nominative particle as an indicator of subject because of cases where the nominative i/ka sometimes appears in the place of an object particle. Ko (2002) also states that the usages of both nominative -i/ka and accusative -ul/lul have a close relationship with the speaker's intended meaning of the sentence rather than the syntactic functions. These studies clearly indicate the need for a syntactic-semantic balanced approach to teaching both the accusative and nominative particles, which requires a well-balanced presentation between levels.

Second and consequently, teaching nominative-accusative constructions should not rely heavily on grammatical patterns. Although the purpose of introducing the particles in grammatical patterns is to ease learners into understanding how to construct accusative or nominative sentences and may be effective in the beginner level, it may rather discourage them to produce more complex sentences in upper levels if further explanation is not provided. Kim J-E (2015) notes that the cause of errors of nominative -i/ka and accusative -ul/lul is because of the over-simplistic sentence structures of the particles that are taught in the beginner level and the presentation of a large number of 'lump forms' without any specific explanation of the particles. The study notes that the scope of the first clause which becomes more comprehensive in intermediate and advanced levels, is limited to only nouns in beginner level textbooks, and similarly the scope of possible predicates in the second clause is limited to whole grammatical forms that learners are expected to memorise in the beginner level. A number of previous studies have suggested some specific patterns that will allow learners to utilise when constructing different types of nominative sentences, and while these may be useful for producing simple sentences, Cho IJ's (2006) formulas are only suited for English equivalent constructions, and Shin S-C's (2006c) suggested pattern (As for X+Top, Y+NOM Z-Predicate) does not work with constructing copular negative and inchoative sentences.

Teaching by grammatical patterns can become particularly problematic in dual subject sentences where the accusative or nominative particles often do not act as an 'object' or 'subject' particle respectively. In order to effectively present the different meanings of the accusative *-ul/lul*, a few suggestions are put forward in previous studies. Pak (2007) suggests that the accusative particle in dual subject sentences should be taught in relation to other particles, such as in the following.

(254)

- a. *min.wu.ka na.lul phal.ul cap.ass.ta* ↔ *min.wu.ka na.uy phal.ul cap.ass.ta* 'Minwoo grabbed my arm'
- b. yeng.huy.ka mwun.pep.ul sel.myeng.ul han.ta ↔ yeng.huy.ka mwun.pep.ul sel.myeng.han.ta
 - 'Yeonghui is explaining grammar'
- c. *min.wu.ka hak.kyo.lul kan.ta* ↔ *min.wu.ka hak.kyo.ey kan.ta* 'Minwu is going to school'
- d. chul.swu.ka yeng.huy.lul chayk.ul cwu.ess.ta ↔ chul.swu.ka yeng.huy.ey.key chayk.ul cwu.ess.ta
 - 'Chulsoo gave Yeonghui a/the book'
- e. ku.nun a.tul.lul uy.sa.lul man.tul.ess.ta ↔ ku.nun a.tul.lul uy.sa.lo man.tul.ess.ta
- f. 'He made his son a doctor'
 min.wu.nun chul.swu.ey.key phal.ul cap.hyess.ta ↔ min.wu.nun
 chul.swu.ey.key phal.i cap.hyess.ta
 'Minwu was grabbed by the arm by Chulsoo'

Although this method would give a rough idea of how the meaning of the accusative -ul/lul can differ according to different situations/constructions, it is important to note that this doesn't mean that the accusative particle is the same as another particle, and make clear of how the meaning of the sentence differs to avoid any confusion. For example, (254a) shows the same action of min.wu grabbing 'my arm' regardless of whether the accusative -ul/lul or genitive -uy is used, but when the accusative -ul/lul is used, the focus is on the fact that the 'arm' is in 'my possession', whereas with the genitive -uy used in place of the accusative -ul/lul, the focus is on the fact that it is 'my arm' that min.wu has grabbed. In (254d), chel.swu.ka yeng.huy.lul chayk.ul chwu.ess.ta places focus on yeng.huy, whereas with -eykey there is no particular focus and just merely shows the action of 'giving the book'. Since such mere semantic differences and abstract concepts cannot be interpreted through grammatical formulas or structural forms, it is necessary to highlight the differences that the accusative -ul/lul can make in meaning by substitution so that KHL learners will be able to construct sentences within the structural constraints of accusative -ul/lul.

Third, there is a need to differentiate spoken and written usages of the accusative and nominative particles. This especially relates to KHL learners who generally cannot differentiate their spoken language from written forms. Kim J-E (2015) identifies frequent case particle errors due to negative transfer from spoken to written in intermediate and advanced level learners, where many learners did not recognise -ul/lul and -i/ka omittable and non-omittable contexts. The study notes that the cause lies in the current reading-focussed pedagogical materials which do not provide proper guidance to distinguishing between spoken and written contexts. In fact, although not discussed in this study, KFL learners tend to frequently commit errors of omission either due to avoidance or ignorance, possibly because they do not know how the use of the accusative particle affects the meaning of a sentence. For KHL learners who acquire the language primarily through aural means where the accusative particle is omitted frequently in casual speech, it is important that they understand the relationship meaning in dual particle sentences and where and why the accusative particle is omittable in certain contexts.

The difference in meaning when the accusative particle is used or omitted in an omittable sentence should be noted so that the semantic functions of the accusative -

ul/lul are clearly portrayed. This means that the accusative particle should not just be taught as an 'object' particle, but also as a particle that indicates 'selection'. Note the following examples (Eom, 2002: 187).

(255)

- a. sa.kwa.lul cwu.sey.yo 'Give me an apple (specific)'
- b. sa.kwa cwu.sey.yo 'Give me the apple (general)'

In even simple sentences such as example (255), there is quite a big difference in meaning when the accusative *-ul/lul* is used and omitted. While (255b) simply shows the speaker's hope that the listener will perform the action of 'giving the apple' to the speaker,(255a) shows the speaker's intention of emphasising an 'apple' in order to convey that the speaker wants an apple out of many fruits in particular. This concept extends to dual subject sentences where the accusative particle is omittable, as in the following examples. (Eom, 2002:192).

(256)

- a. *ceng.sen.i.nun kang.a.ci ku.lim.ul ku.lyess.ta* 'Jungsen drew a picture of a dog'
- b. *ceng.sen.i.nun kang.a.ci.lul ku.lim.ul ku.lyess.ta* 'Jungsen drew a picture of the dog'

(257)

- a. *cwun.yong.i.nun a.lum.ta.wun na.la kkwum.ul kkwun.ta* 'Junyong is dreaming of a beautiful country'
- b. *cwun.yong.i.nun a.lum.ta.wun na.la.lul kkwum.ul kkwun.ta* 'Junyong dreams of a beautiful country'

Eom (2002) notes that (256a) shows that the content of the picture that *ceng.sen* drew is a dog, whereas (256b) is a selective description of what the speaker has sensorily perceived by describing the 'act of drawing' with a focus on 'the dog'. In example (257) on the other hand, while (257a) similarly shows that the content of the 'dream' is 'a beautiful country', (257b) shows the hope of an ideal country by placing focus on 'a beautiful country' rather than the literal interpretation 'dreaming of a beautiful country in a dream'.

By approaching the accusative particle from such meaning-focussed instruction, KHL learners will be given an opportunity to 'understand' and not merely 'memorise' the functions of the accusative -ul/lul, so that they don't use it in contexts where the nominative -i/ka or any other particle should be used. Overall, it is necessary to dedicate a generous amount of time focusing on the functions and meaning of such particles so that it goes beyond merely introducing particles at the beginner level.

7.3.2.3 Locative-static -ey and Locative-dynamic -eyse

Research on the teaching implications of locative-static -ey and locative-dynamic -eyse is yet insufficient and incomplete, despite the fact that their substitutions have been identified as one of the common high frequency items in both KFL and KHL studies.

The current method of teaching the locative-static and locative-dynamic particle in textbooks has the following issues (Shin S-C, 2008; Song, 2014):

- (a) There is a lack of systematic and detailed grammatical explanation of the two particles, and the differences between two particles that have similar meaning is not described.
- (b) The particle -ey is more frequently presented than the particle -eyse, which may account for the substitution of -ey for -eyse where learners may be more familiar with the particle -ey.
- (c) The usages of these two particles, like any other particle discussed previously, are usually only presented in beginner level textbooks, and hence only the most basic and more common usages can be taught.
- (d) The presentation of the two particles is inconsistent and imbalanced throughout textbooks, which interferes with a systematic learning process for learners.

These issues lead to several pedagogical implications. First, there needs to be a detailed description of the meanings of both the particles -ey and -eyse, rather than just the simplistic explanations in beginner level textbooks. Song (2014) explains the usages of the particle -ey and -eyse as basic usages and their extensions, which is summarised below.

- (a) Both the particle -ey and -eyse have a locative and locomotive relationship.
- (b) Locative -*ey* has the basic meaning of place of existence (specific location), which extends to restricted range, situation, standards and time.

- (c) Locative -*eyse* has the basic meaning of place of action (specific location), which extends to restricted range and situation.
- (d) Locomotive -*ey* has the basic meaning of point of arrival (specific location), extending to goal/purpose, standards, cause, means and time.
- (e) Locomotive -*eyse* has the basic meaning of point of departure (specific location), extending to origin, standards, cause and time.

In the majority of Korean language textbooks, only the basic meanings of the particle -ey and -eyse that indicate 'location' and 'direction' are presented in the beginner level. Although these two usages are the most commonly used forms, the errors identified in this study indicate that a notable number of sporadic errors occurred in the extensive usages of the particle -ey and -eyse such as 'situation' or 'range', which shows that KHL learners are more capable of, but are not familiar with producing a more complex range of sentences. Thus although the majority of substitutions occurred between locative-static -ey and locative-dynamic -eyse, it is important that all functions and meanings of the particle -ey and -eyse are taught so that learners are aware of the distinct differences. This is especially the case with KHL learners who are exposed to broader usages of the particle -ey in non-classroom environments, and so a specific method needs to be developed to encourage a more complex and comprehensive use of the particle -ey and -eyse, including those with abstract and metaphorical subjects. Song (2014) notes that learning specific meanings of location becomes a basis for understanding abstract and metaphorical spaces that act at a 'location' or 'direction', hence it is important that learners become familiar with the comprehensive usages of the idea of 'location' or 'direction' at the beginner level, which should be followed by more abstract and metaphorical ideas in intermediate and advanced levels.

Second, in addition to presenting the extensive meanings of the two particles, a comparison of the two particles in each category should be outlined with examples to effectively demonstrate the different usages of the two particles under the same category. For example, Song (2014:477-479) suggests the following examples.

Table 36 Examples of locative -ey and -eyse

	Locative -ey (existence)	Locative -eyse (action)
Basic	chul.swu.nun hak.kyo.ey iss.ta 'Chulsoo is at school'	chul.swu.nun hak.kyo.ey.se kong.pwu.han.ta 'Chulsoo studies at school'

Range	wu.li tay.hak.un kwuk.mwun.kwa.ka e.mwun.kyey.yel.ey sok.hay iss.e.yo 'The Korean program is in the School of Languages at my university.'	chul.swu.nun wu.li pan.ey.se ka.cang ttok.ttok.ha.ta 'Chulsoo is the smartest in my class'
Situation	mo.tun kes.un sayng.kak.ha.ki.ey tal.lye.iss.ta 'Everything depends on how you think'	ka.cok.kath.un pwun.wi.ki.ey.se ham.kkey il.hal sa.lam.ul chac.sup.ni.ta 'We are looking for a person to work together in a family- like atmosphere.
Standards	ku.kes.un yey.uy.ey e.kus.na.nun hayng.tong.i.ta 'That is an act that goes against courtesy'	ku pal.en.un sang.sik.ey.se pes.e.nan kes.i.ta 'That remark is beyond common sense'
Time	cin.tal.lay.nun i.lun pom.ey phin.ta 'Azaleas bloom in early Spring'	-

Table 37 Examples of locomotive -ey and -eyse

	Locomotive -ey (point of arrival)	Locomotive -eyse (point of departure)
Basic	chul.swu.nun hak.kyo.ey kan.ta(movement) 'Chulsoo is going to school'	chul.swu.nun hak.kyo.ey.se chwul.pal.han.ta(action) 'Chulsoo is departing school'
		chul.swu.nun hak.kyo.ey.se cip.kka.ci kel.e.kan.ta(movement) 'Chulsoo walks home from school'
Goal/purpose	i yak.un kam.ki.ey cal tut.nun.ta 'This medicine is good for colds'	-
Origin	-	ku.tul.ey ssa.wum.un cak.un o.hay.ey.se si.cak.toy.ess.ta 'Their argument started from a little misunderstanding'
Standards	ku.uy sil.lyek.un cen.mwun.ka.ey ka.kka.wess.ta 'His skill was close to a professional's'	mom.mwu.key.ka phyeng.kywun.chi.ey.se sal.ccak mo.ca.lan.ta '(someone's) weight is slightly less than average'
Method	ko.ki.nun hang.han pwul.ey ik.hye.ya han.ta'Meat should be cooked at a high	-

	temperature'	
Cause	ku.nun yo.lan.han so.li.ey cam.ul kkayss.ta 'He woke up to a loud noise'	na.nun kek.ceng.ha.nun ma.um.ey.se chwung.ko.lul hayss.e.yo 'I gave advice out of concern'
Time	i.pen hak.ki.ey ilk.ul chayk.i.ya 'This is the book you are going to read this semester'	ha.lwu cwung han si.kan.ey.se sey si.kan.un ca.tong.cha.ey.se po.nayn.ta 'I spend one hour to three hours a day in the car'

Although current textbooks also differentiate between the locative and dative functions, they do not provide an overall comparison or overview of how the particle -ey and -eyse differentiate in similar meanings/categories. By comparing the two particle usages under the same category, this will allow learners to understand that -ey and -eyse are used in different situations, and consequently may reduce their over-reliance on the particle -ey. However the above examples may be difficult for the learner to understand the differences in a Korean context as they are metaphorical and abstract extensions of the basic meanings of 'location' and 'direction', and as they are concepts that require an extensive period of time to understand the implicative abstract notions of the particles, they should be presented over a series of courses with an abundant amount of examples to assist with their understanding.

In addition, contexts where the particle -ey and -eyse can be used interchangeably should be highlighted too. This applies to the locative-static particle -ey and locative-dynamic -eyse when used with 'staying' verbs such as sal.ta 'to live', me.mwu.lu.ta 'to stay', chey.lywu.ha.ta 'to stay (for a long time)' etc., which was one of the significant substitution errors between the locative-static -ey and locative-dynamic -eyse. It should be made clear that predicates with the meaning 'to stay' can mean 'existence' and the 'action of staying' of the subject, and thus both the locative-static -ey with the meaning of 'existence' and locative-dynamic -eyse that indicates 'action' can be used when there is no particular focus on one meaning.

Third, to avoid confusion in understanding the different usages of -ey and -eyse, common examples of the particles for different meanings should be given, rather than just merely providing English equivalent prepositions or introducing the particle alone.

These include basis usages such as examples (258)-(261), and idiomatic expressions such as examples (262)-(263) below.

- (258) N+ey iss.ta/eps.ta 'N is/is not' (location and existence)'
- (259) N+eyse mek.ta/kon.pwu.ha.ta/man.na.ta... 'eat/study/meet at N (action)'
- (260) N+ey ka.ta/o.ta ... 'go (to) N/come (to) N ...'
- (261) N+eyse ka.ta/o.ta ... 'go from N/come from N ...'
- (262) -ey pi.hay 'compared to ...'
- (263) -ey tta.lu.myen 'according to...'

Although it is necessary to provide such examples to learners to assist with their understanding of the more complex usages of -ey in later stages of learning, it is important that they keep in mind that these aren't the only possible forms and should only be followed as a guide. It is also important that learners are aware of the meanings (or what it represents) instead of memorising in lump forms. In addition, Shin S-C (2008:37) notes that there is a need to review peculiar constructions, such as N+eyse N+i/ka iss.ta where the locative-dynamic -eyse is used with existential verb constructions -i/ka iss.ta, which can be replaced with N+eyse N+ul/lul hata for dynamic constructions if the sentence involves an event or activity. It is thus essential that learners are informed of the meaning of such common constructions highlighting 'why' the particles are used in such ways, and not just merely presenting a list of expressions for them to memorise.

Fourth, because most of the errors in this category occurred due to the ambiguity in the 'dynamicity' of the verb, focus should be placed on outlining common words of confusion that learners may find its dynamicity ambiguous. These include verbs such as *ca.ta* 'to sleep', *swi.ta* 'to rest' etc (Shin S-C, 2008) which may seem relatively less 'dynamic' than high dynamic verbs such as *kong.pwu.ha.ta* 'study', *mek.ta* 'eat' etc. Although such common verbs of confusion should be explicitly highlighted to learners, learners should be aware that the locative dynamic *-eyse* indicates some act or activity that occurs at a certain location, within certain limits or some situation, and not just rely on how 'dynamic' the verb is to predict which particle to use.

The particles -ey and -eyse are abstract notions that branch out from the basic meanings of 'location' and 'direction', but current textbooks do not highlight the fact that there are such extensive meanings and usages of these two particles. It should be made clear to KHL learners that these two particles in particular go beyond literal

meanings and extend to abstract contexts of 'location' and 'direction' to provoke their cognitive ability to recognise the implicative context, rather than to decide which to use according to the structural form of the sentence.

7.3.3 Lexical level

7.3.3.1 Issues in Vocabulary Teaching

Traditional methods of teaching vocabulary generally consist of memorising or learning from vocabulary lists and knowledge tests based on those lists. An increasing number of studies (for example, Martin, 1984; Smith TB, 2008; Nelson, 2008) claim that such method is not efficient and leads to errors in advanced level learners. In particular, Martin (1984) states that introducing new vocabulary via 'synonyms' result in the misuse of such words in learners of intermediate or above levels, as they tend to perceive the new word to be interchangeable with already equipped words without any contextual restraints.

The problems associated with teaching methods stem from the complexity of what it means to 'know³⁵' a word. Knowing a word consists of many variables which is a complex concept to adapt to vocabulary teaching within classrooms, as it consists of not only being able to recognise its form or associate it with its translation in the L1, but also being able to access it in meaningful and appropriate contexts. This is a particularly important aspect to consider when teaching KHL learners as they possess relatively good knowledge of the literal meanings of a word, but have trouble distinguishing their implicative and contextual usages at a pragmatic and socio-linguistic level, which is where many of their errors derive from.

This then leads to another issue of how vocabulary instruction should be approached. The tension lies between claims for contextualised and decontextualised vocabulary instruction, but ideally new vocabulary should be taught within context from which learners can learn strategies to continue to acquire and improve their vocabulary

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³⁵Nation, I.S.P. 1990. *Teaching and Learning Vocabulary*, Heinle & Heinle. defines word knowledge that is applicable to learners from a pedagogical perspective, as meanings (whether there are multiple meanings or connotations), spelling, pronunciation, grammatical behaviour (about the patterns, grammatical category and structure involved), collocations, register, associations, and frequency (whether the word is common, outdated or rare), which provides a good summary that reflects the pedagogical needs of such common errors.

on their own both in and out of class (Oxford and Scarcella, 1994:235). The traditional method of teaching by word lists can be integrated into context so that it is more meaningful to students, which would make a partially contextualised approach. Teaching by two semantically directly related words such as synonyms, as Martin (1984) and Nation (1990) suggest, may confuse learners if taught simultaneously, hence it would be better to teach words that are more loosely related such as words within the same topic or theme. More focus is now placed on presenting new vocabulary with or within contextual information, rather than direct, decontextualised methods that do not outline word usage constraints or differences in syntactic behaviours, and ignoring collocative combinations.

In the case of HLLs, it is often the case that they are more capable of accessing lexical items more easily than foreign language learners as most of the language they have acquired has been done so naturally. Coady (1997) suggests though, that learning vocabulary through a natural approach can achieve small to moderate proficiency in the language, as opposed to a systematic approach that is not fully contextualised, which can result in a more beneficial and successful learning of vocabulary. In fact, without formal language education, HLLs vocabulary development stagnates, where they experience difficulty in differentiating the differences in use such as collocations and constraints. The following subchapter presents pedagogical implications for KHL learners based on the significant lexical errors identified in this study.

7.3.3.2 Semantic Similar Items and Dictionaries in Korean Language Teaching

Lexical errors are by far the most subjective and most vast category compared to grammatical or orthographic errors. It is also one of the more frequently committed errors by both KHL and KFL learners, and the more important category that language learners claim to be. Although the proportion of lexical errors compared to orthographic and grammatical errors was relatively smaller, the weight of significance of these errors cannot be based on frequency as their quantitative counting units are different.

Because lexical learning involves many strategies which are affected by a vast number of linguistic, social, cognitive, metacognitive, psychological, emotional variables and more, it is difficult to assert which strategy will best suit learners. Due to this nature, there are many arguments, concerns and claims on lexical pedagogy. For example, Kwak and Kim (2007) claim that the current Korean language education is focused on communication and expression sentence patterns but should be accompanied by information on sentence structure, sentence constituents, syntactic agreements amongst those constituents, how the vocabulary, phrase and clause that construct sentence constituents are related in order to improve their accuracy in formal writing. On the other hand, studies such as Hong (2004) suggests that vocabulary should be taught by comparing and contrasting semantically similar words, idioms and *han.ca* based words should be taught in accompaniment with Korean culture and history, and collocations should be taught explicitly as a whole. Kim M-O (2003b) also notes that vocabulary should be taught accompanied by its form, grammatical and semantic characteristics and not by simply isolating and teaching the semantic characteristics alone.

While these pedagogical suggestions are worthy of attention, the two main issues with learning Korean lexical items claimed by previous studies in common is difficulty due to semantic similarity between lexical items in Korean that are not clearly distinguished in textbooks or in classrooms, and the lack of a foreign language learnerspecific dictionary. Although the results of this study indicate that the main issue for KHL learners in learning and producing lexical items is due to negative transfer from casual speech, the primary cause of such errors is due to their limited vocabulary span and inability to distinguish between similar meanings and sounds. Confusion between semantically similar items derives from many factors, but the lack of a learner-specific dictionary in Korean appears to be one of its primary causes. Although positions on the use of a dictionary for 'learning' purposes are controversial, many previous studies in Korean language education point to the need for a learner specific dictionary for Korean Foreign Language learning. While studies such as Oxford and Scarcella (1994) claim that a dictionary approach is ineffective, the potential efficiency of monolingual dictionaries designed for advanced level learners is recognised, provided that they are partially contextualised by being accompanied by classroom activities. In Korean, however, an appropriate monolingual dictionary is yet to be produced as most currently available Korean-Korean dictionaries are suited for native speakers which KHL learners often cannot relate to, and Korean-English or English-Korean dictionaries are usually too simple and suited for beginner level learners which are not sufficient in neither word breadth nor depth. Like KFL learners, KHL learners will find it difficult to understand

the meaning of new or uncertain words using a Korean dictionary which uses more difficult or unfamiliar words to construct the definiens, as their metalanguage is limited.

Overall, it appears that the availability of a learner-specific dictionary in Korean is most crucial as a pedagogical strategy as learners tend to rely more on dictionary definitions to learn and understand the meaning of new words rather than in-class explanations. In addition, although more examples and a detailed explanation can be provided in the classroom, the number of words that can be covered during classroom hours is very limited, and cannot satisfy different individual learner needs. Studies that investigate learners' needs such as Lee J-U and Nam (2001), which utilises a modified 'learning categories and strategies' by Gu and Johnson (1996:651-652) in an attempt to evaluate the vocabulary learning preferences of Korean L1 and Korean as a Second Language (L2) learners, also show that even from the learner's perspective, they prefer to learn vocabulary by examples in the dictionary, where advanced level learners in particular tend to also focus on distinguishing the prefix, suffix and word stem when learning a word. This supports Martin's (1984) claims that monolingual learner dictionaries facilitate language encoding as well as decoding, and that learners often feel dissatisfied with the lack of grammatical information, number of examples and relations or differences between synonymic relations, since they tend to utilise such dictionaries more for decoding lexical information, but such dictionaries are not capable of delivering adequate information for learners especially with words with shared meanings.

Many studies that suggest the need for a learner-specific dictionary call for a context-based explanation for vocabulary in dictionaries (for example, Kim M-O, 2003b; Han, 2001). This appears to be an ongoing problem that extends into classrooms. Oxford and Scarcella (1994) note that still many Asian languages instructors practice decontextualised learning strategies such as word lists and dictionary-lookup methods, which is regarded as an insufficient method for 'learning' or acquiring new vocabulary. The study also notes that monolingual dictionaries designed for advanced L2 learners are partially contextualised unlike bilingual dictionaries designed for beginner and

³⁶(a) Beliefs: words should be memorised, learn vocabulary and put it to use, acquire vocabulary in context; (b) Metacognitive Regulation: selective attention, self-initiation; (c) Guessing Strategies: wider context, immediate context; (d) Dictionary Strategies: comprehension, extended dictionary strategies, looking-up strategies; (e) Note-Taking Strategies: meaning-oriented note-taking, usage-oriented note-taking; (f) Rehearsal Strategies: using word lists, oral repetition, visual repetition; (g) Encoding Strategies: association / elaboration, imagery, visual encoding, auditory encoding, using word-structure, semantic encoding, contextual encoding; (h) Activation Strategies.

intermediate level learners, but that these dictionaries usually only provide typical meanings of words which are insufficient for advanced learners who are prepared for academic writing. Han (2001) in particular notes that the current Korean dictionary uses less commonly used words in the definiens than the definiendum, and presents a list of information that should be included in a KFL learner-specific dictionary which strongly applies to KHL learners who lack knowledge on information on pronunciation, syntax such as the structure of the word, collocative information etc., listed below.

- (a) Relationships between words
 - i. Hierarchies listing subcategories of categories
 - ii. Subsets of adjectives
 - iii. Word clusters listing similar words
- (b) Collocative information for semantically similar words listing words for which the definiendum can or cannot be collocated with
- (c) Socio-cultural meanings
 - i. Implied social status relationships
 - ii. Implied positive and negative relationships

(d) Other

- i. The social class/subjects that use the word (e.g. age, gender etc.)
- ii. Whether it is slang
- iii. Metaphorical or figurative expressions need to be explained
- iv. Whether it is casual, general or academic
- v. Whether it is communicative or written
- vi. What text type it is usually used in
- vii. A description of the most common situations for which emotive words are used in
- viii. The meaning of the word should be able to be understood through examples presented

In other words, words presented in a learner dictionary should not be taught as an isolated lexical item but as a relationship of words, syntax and socio-cultural implications. This idea complements Martin's suggestions for teaching semantically similar vocabulary, and may serve as a practical addition to the classroom.

The presentation of contextual information and morphosyntactic information in dictionaries is especially important for KHL learners who generally lack morphological knowledge and awareness of contextual and semantic differences between polysemic and homophonic words. Thus there appears to be a substantial amount of significance in developing a KFL and KHL learner dictionary for intermediate to advanced level that outlines these components. Lee JH (2003) calls for a thesaurus for KFL learners as the most frequent errors amongst beginner level KFL learners are related to semantic similarity, but this would need to encompass much information to be effective, such as a generous number of examples and references to presuppositions, relations of hyponymy or hypernymy and constraints on use as pointed out by Martin (1984). In addition, because lexical errors become more frequent in higher levels as the amount of vocabulary that learners need to know increases in both quantity and difficulty (Martin, 1984; Hong, 2004), the development of a learner focused dictionary should be oriented towards satisfying the needs of an advanced level learner with both semantic and structural information.

For KHL learners in particular, while a learner-specific dictionary may assist with their understanding of morphosyntactic structures, another aspect to consider is their inability to distinguish between written and spoken forms. Developing a learner dictionary targeted at KHL learners that outlines conversational and written language differences is inefficient and uneconomical, and for teachers to rely on learners to learn and understand the sociolinguistic variations independently is a highly insecure expectation. As many studies disapprove of the dictionary as a strategy for efficient 'learning' of vocabulary, it should be accompanied by adequate instruction within the classroom to compensate for its gaps. It is thus crucial that in addition to the development of a KFL/KHL learner-specific dictionary, focused instruction on the extended meanings on sociolinguistic usages and difference in communicative form should be outlined in KHL classrooms.

Instruction within a KHL classroom needs to particularly focus on semantically similar words that differ according to the socio-cultural context such as the socio-economic status of speakers, which text type it is used in, difference in casual, general or academic usages, difference in spoken and written communication, and difference in implied meanings between semantically similar words. One explicit example is the word 'death', which has over 50 variations in Korean for which its usages differ

according to social status, situation, tone, text type, type of communication, implied meaning, the subject, historical background and more. Although this example is a complex concept that even native speakers find difficult to distinguish, it is one that demonstrates the complexity of semantically similar items within the Korean language. Since most of the errors committed by KHL learners result from negative transfer from speech to writing, they should be exposed to both sides of communicative and written forms within the same topic or context, and be given enough practice for both situations so that they fully understand that they are used in different situations. For example, learners may be simultaneously introduced to both communicative and written items that will allow them to practice writing and speaking in their respective appropriate language forms. In addition, it may also be effective to take advantage of learners' tendency to write the way they speak, and implement courses or lessons which integrate formal communicative practices based on correct structures and context-appropriate lexicon, and allows them to practice speaking more concisely with a wider range of vocabulary.

Studies on learner dictionaries generally highlight the economical problem of the number of pages and printing etc., but with the advancement of technology, it seems timely to shift away from this concern and place focus on developing a user-friendly, contemporary program or application and on including as much relevant information as possible. With appropriate integration into the classroom, it is expected that a learner-specific dictionary will become an indispensable resource in providing both KFL and KHL learners with constructive and systematic information for lexical items, and potentially help them to improve on their errors as well as develop the capacity to learn for themselves.

7.4 Summary

The implications of the results indicate that KHL learners possess unique characteristics that require special attention from a pedagogical perspective. In general, they appear to exhibit common language traits despite their linguistic, educational and cultural heterogeneity, with many of their errors occurring due to the discrepancy between their high proficiency in spoken fluency and lack of formal education in the written language. These specific language traits resemble the language features of an

early L1 and adult L2 learner, calling for a KHL-specific pedagogy that can effectively target their common difficulties. These require an approach from policy, curriculum and classroom levels.

At a policy level, there appears to be an overall lack of support for heritage languages from both state and federal governments, especially in Asian languages. Although recent developments in language policies show considerable advancements in (perceptions towards the prospects of Asian languages, including Korean), many gaps remain. A range of stakeholders, including the Australian Government and state-level curriculum authorities, need to address the development of the HLL cohort. In particular, (this study identified that) the Australian Government needs to: (a) recognise HLLs as a distinct cohort to L1 and L2 learners; (b) increase community awareness and understanding of the educational, economic, strategic and socio-cultural significance of Korean and Korean language; (c) increase financial and resource support for materials, course and teacher development; and (d) work with the Korean Government to establish partnerships between schools in Australia and Korea while continuing promotion of Korean heritage language programs.

At a curriculum level, there is a strong need for the development of a KHL curriculum at secondary and tertiary levels to reduce the reliance on community language programs which generally lack appropriate resources such as teaching materials and qualified Korean language teachers. An investigation into the current Australian Curriculum for Languages indicates that its learning outcomes are biased towards fostering learners of Korean as a second or foreign language, which do not adequately address KHL learners' needs. Although a KHL-specific curriculum may not be able to accommodate the language needs of all subgroups of KHL learners, it is important that it reflects common HLL difficulties, especially in the acquisition of the formal variety in both written and spoken discourse. Consequently, the development and integration of KHL-specific materials such as a Korean learner-specific dictionary, course books, assessments etc. should also be considered.

At the classroom level, the design of a course or lesson needs to take into consideration the micro and macro aspects of KHL instruction including teaching approaches and learning requirements. Considering their nature of acquisition which usually takes place in a casual setting, it is claimed that they would benefit more from a communicative approach accompanied by some grammar-based instruction, and a

combination of explicit and implicit instruction according to individual learner needs and nature of content being taught. At a macro level, a discussion of the frequent errors of KHL learners in this study show that there exist specific pedagogical requirements that need to be addressed within the classroom. Discussing the common difficulties of KHL learners, this study finds the following pedagogical implications for high frequency orthographic, grammatical and lexical errors.

(a) Orthographic errors consist of errors due to confusion in distinguishing between phonetically similar phonemes, and ignorance in phonological variations and morphology. For phonetically similar phonemes, it would be effective to associate *han.ca* phonemes with a group of words in the same semantic category, rather than trying to distinguish by sound or mouth shape. It is also important to consider whether the error was affected by sounds only or their structural aspects and emphasise such accordingly. Phonetically similar consonants may be distinguished by how their counterparts affect the semantic features of a word, and may be accompanied by dictation exercises to improve visual-aural skills.

To increase awareness in phonological variations and morphology, learners should be taught orthographic conventions and semantic differences in homonyms that occur due to sound shift, provided that they are not required to memorise such rules but only understand and are aware that such rules exist. Irregular words and revised orthographic rules should be highlighted explicitly as they do not follow conventional rules, especially with HLLs who usually acquire the language from their parents who may not be aware of the revised orthography. Above all, it should be noted that teaching 'correct' orthography should not be stressed as it may discourage learners, and should be integrated into activities for learners to internalise naturally.

(b) In grammar, the most notable errors were the case particle substitution error pairs of nominative -i/ka and topic-contrast -un/nun, accusative -ul/lul and nominative -i/ka, and locative-static -ey and locative-dynamic -eyse. The general pedagogical issues related to all three case particle pairs suggest that (a) they are only introduced in beginner level textbooks and not revisited in upper level textbooks despite the increase in complexity of the usages of the particles; (b) they are usually taught in grammatical patterns of short and simple sentences; and (c) a meaning and context-focussed approach is lacking. Several suggestions can be made for these issues. First, a balanced and distributed presentation of particle functions and meanings is needed throughout all

levels by dedicating an extensive amount of time and space to tackle the persistent error items. Second, explanation of grammatical particles should not rely heavily on grammatical patterns as teaching by grammatical patterns may discourage learners in intermediate and advanced levels to construct more complex sentences. Third, a KHL-specific grammar-based program that is adequately proportioned between a focus on rules and application of such rules is needed, improve the heritage learners' accuracy, which will help increase their communicative ability and performance.

Specifically, for the substitution of nominative -i/ka and topic-contrast -un/nun, the functional 'closeness' of the two particles appear to be their main issue, where studies suggest teaching by rules, forms or functions as a method of differentiating the usages of the two particles, which has been criticised for its lack of explanation of the semantic concept of the particles. However rather than teaching solely by semantic functions, it is necessary in KHL pedagogy to incorporate methods that can bring out KHL learners' innate ability, by teaching the basic premises of the two particles which is comprehended by intuition, so that they can grasp the grammatical and pragmatic functions and implicative meanings within context.

Teaching the accusative -ul/lul and nominative -i/ka should not rely heavily on the definition of 'object particle' and 'subject particle' respectively, especially with the particle -ul/lul which often does not act as an object particle in special cases where it works as an emphatic or selective particle. It is thus necessary to teaching the students, especially at intermediate or higher level, that there are additional special functions and usages of the accusative particle beyond their simple function as an object particle. In addition, there is a need to differentiate spoken and written usages of the two particles, by outlining the differences in meaning when the particles are used or omitted.

The main issues with locative-static -ey and locative-dynamic -eyse are that the particle -ey is usually more frequently presented than the particle -eyse, and that there is a lack of systematic explanation of the two particles, especially beyond their basic usages. Teaching these two particles requires an extensive period of time to allow learners to understand the extensive usages of the particles -ey and -eyse which derive from the basic usages to metaphorical and abstract spaces or location and direction, which may be accompanied by a presentation of common grammatical patterns or idiomatic expressions, and outlining common words of confusion with 'ambiguous dynamicity'.

(c) For teaching vocabulary, focus should be placed on developing a learner-specific dictionary to improve learners' ability to distinguish semantically similar items and spoken forms from written forms. Such a learner-specific dictionary should incorporate information on pronunciation, syntax, collocative information, and socio-cultural/sociolinguistic explanations with a sufficient number of examples, which may assist KHL learners' understanding of morphosyntactic structures and different contextual usages of semantically similar words. This should also be accompanied by classroom instruction which should focus on giving learners both spoken and written practice of semantically similar items that have different contextual usages, or implement a formal communicative course that teaches learners to use correct structures and context-appropriate lexicon in speech, to take advantage of their tendency to write the way they speak.

Overall, it is important that KHL learners can develop the ability to interpret the language like a native speaker, not by relying primarily on memorised patterns or meanings to decide which items to use but by utilising contextual information and drawing on their cognitive awareness.

CHAPTER 8 SUMMARY AND CONCLUSION

While there are many EA studies that examine the errors of Korean language learners, there is yet a lack of research that examines a broad overview of KHL learners' errors and their causes, as well as their implications in the Korean language pedagogy. In this respect, this study contributes to such research gaps by examining the errors of English-L1 tertiary intermediate KHL learners. The study has identified and discussed the high frequency orthographic, grammatical and lexical errors, and has derived significant pedagogical implications from quantitative and qualitative analyses of the results. The findings agree with the proposed guiding assumptions, that KHL learners share common key error types and patterns when they come from the same language background which can be explained from linguistic and sociolinguistic perspectives, and that KHL and KFL learners from the same language background share certain linguistic similarities and differences. The key findings of KHL learners' language characteristics and the implications can be summarised as follows:

- (a) KHL learners' language use is characterised by both L1 and L2 learner language traits, but do not entirely resemble either category;
- (b) KHL learners strongly exhibit distinct KHL-specific language characteristics that differ at different linguistic levels;
- (c) KHL learners tend to primarily rely on spoken forms to make decisions related to their written language – not just in pronunciation but also lexical (redundancy, simplification, collocations, pragmatics etc.) and grammar (omission of case particles etc.);
- (d) KHL learners overall lack the formal variety in written Korean, and also possibly spoken Korean considering that they write the way they speak;
- (e) KHL learners require attention at a policy, curriculum and classroom level, where an awareness of the educational and socio-economic benefits needs to be increased across key stakeholders within the community;
- (f) KHL learners may benefit more from a communicative and content-based approach that focuses on taking advantage of their innate language ability rather than merely focusing on correcting common errors, although a grammar-based

instruction should not be excluded to cater for individual learner needs and nature of content being taught.

The following sections further summarise the main findings of each error category, and provide suggestions for future research.

8.1 Summary of Findings

(a) Orthographic

Substitution between *ay* and *ey* were judged the most significant of orthographic errors in this study, given its overwhelmingly high frequency compared to other error substitutions. Considering error rates, the substitution *oy* for *way* had the highest error occurrence rate with mid frequency. The inability to differentiate between similar vowel sounds appears to be largely due to closeness of sounds that are not distinguished in speech, where KHL learners mostly acquire the language aurally. Structural ignorance is also a factor, such as for *oy* for *way* in *twoy.ta*, and less common cases such as *ey* and *yey* in *-i.ey.yo*, and *e* and *ye* in *-i.ess.ta*. Other problems have arisen due to the mismatch of Korean phonemes to those of English such as for *ay* and *ey* or *wu* and *u*, and colloquial phonological transfer such as in *o* for *wu* in the conjunctive *-ko*.

Amongst consonant errors, $\emptyset.l$ for $l.\emptyset$ substitutions were most frequent with the highest error rate, followed by $n.\emptyset$ for $\emptyset.n$ substitutions. Errors related to the variations of h were also a significant error group. These mainly occurred due to sound alteration where KHL learners rely heavily on sounds when writing, and also due to their weakness in the knowledge of inflectional and derivational morphologies. Errors in the three-series consonants were also notable, mainly occurring due to the lack of absolute equivalence between Korean and English sounds.

There are several pedagogical implications derived for phonetically similar phonemes, and phonological variations and morphology. It is claimed that teaching orthography explicitly by orthographic rules is unnecessarily complex and confusing for learners if solely taught in this way, and must be accompanied by other methods. Based on the errors identified, this study suggests associating *han.ca* phonemes with the meaning of the word to assist learners with constructing grapheme-phoneme and consequently grapheme-semantic connections. The reason for this is due to the ambiguity of teaching the difference between the vowels *ay* and *ey*, which hardly can be

distinguished by mouth shape or sound. Similarly for other close vowels such as way and wey and oy, outlining structural and semantic features may also be more efficient than attempting to differentiate their sounds. For phonetically similar consonants, highlighting the different meanings between similar words with lenis, tense and aspirated counterparts may also be effective in addressing the importance of correct orthography, and dictation may also be accompanied to improve visual-aural skills in distinguishing between the similar consonants.

To improve learners' awareness of phonological variations and morphology, it is important to teach by orthographic conventions, to the extent that they are only familiar with the rules and not required to memorise them. The significance of orthographic conventions may be emphasised by outlining homonyms due to sound alteration so that learners can associate spelling with meaning rather than relying on sound. Some notable errors from this study include words affected by coda neutralisation and silent h, and less frequent errors include those due to palatalisation. Irregular words that do not follow conventional or morphological rules and those that follow revised orthographic rules should be explicitly highlighted with explanations to why they do not follow standard rules where necessary.

(b) Grammatical

More than half of the grammatical errors identified in this study were in case particles with both highest frequency and error occurrence rate, compared to other categories including pre-final endings and verb endings. Substitution in case particles was the most significant with highest frequency, followed by the omission of case particles. From the substitution of case particles, genitive -uy by locative-static -ey was most frequent, although this appears to be due to negative transfer from speech to writing where genitive -uy is usually pronounced as 'ey' in casual speech. Other significant substitutions in order of frequency include locative-dynamic -eyse by locative-static -ey, topic-contrast -un/nun by nominative -i/ka, and nominative -i/ka by accusative -ul/lul. It is noted that these substitutions are of particular interest in Korean language teaching as they are persistent errors amongst both KFL and KHL studies.

Main causes for the substitution of locative-dynamic *-eyse* for locative-static *-ey* include ambiguity of the 'dynamicity' of a verb and broader usages of locative-static *-ey* than the locative-dynamic *-eyse*. For topic-contrast *-un/nun* by nominative *-i/ka*, main

causes include confusion between subject and topic, 'intimacy' of the functions and meanings of the two particles, and a lack of detailed explanation in textbooks. Substitution of nominative -i/ka by accusative -ul/lul mainly occurred due to misinterpretation of transitive and intransitive sentences, particularly in inchoative, experience-theme and adjective sentences.

On examining the pedagogical implications of case particles from the results, this study identified a lack of further detailed explanation of particles in upper level textbooks as a common issue, as well as the bias towards a 'functional' explanation with a focus on form rather than a 'contextual' explanation with a focus on meaning. Between the particles nominative -i/ka and topic-contrast -un/nun which was the most significant case particle substitution error pair, closer attention needs to be paid in providing a detailed explanation of the meaning of both particles as they are difficult to distinguish by function, but teaching by forms should not be excluded. It is also important that KHL instruction does not solely rely on conventional teaching methods but incorporates methods that train their cognitive ability to distinguish and use the particles intuitively. For topic-contrast -un/nun and nominative -i/ka, outlining their basic premises with a sufficient number of examples may assist in comprehending implicative meanings within the use of the particles, given that learners are made aware of this concept implicitly over an extensive period of time.

Substitutions between accusative -ul/lul and nominative -i/ka may be improved by teaching the accusative particle that is not heavily based on definitions that rely on 'object marker' or 'transitive verb marker' as the accusative -ul/lul does not always act as an 'object' particle. The accusative particle in particular should be taught in relation to its semantic properties and textbooks should seek other methods that do not rely heavily on grammatical patterns in constructing sentences with the accusative particle as it may discourage learners to produce more complex sentences in upper levels. This particularly applies to dual subject sentences which do not follow a specific pattern, which rather may be more efficient to outline substitutable particles to help learners' understanding of the meaning of accusative -ul/lul in dual subject sentences, provided that their differences are emphasised. In addition, as KHL learners generally acquire the Korean language aurally, frequent omission of the accusative -ul/lul in casual speech may be a contributing factor to the high frequency of omission and substitution errors where they are unsure of the usages of -ul/lul. It is thus suggested that the differences in

meaning between sentences that use or omit the accusative *-ul/lul* is outlined in order to clarify the semantic properties of the accusative particle.

The main issue with teaching the locative-static -ey and locative-dynamic -eyse appears to be due to an inconsistent and imbalanced presentation of the two particles in beginner level textbooks, which are not revisited or elaborated on in upper level textbooks. While current textbooks only outline the basic meanings of the two particles of 'location' and 'direction', it is important that the abstract and metaphorical extensions of these basic usages are also outlined with a comparison of examples to assist learners' understanding of the differences of the two particles. It is assumed that such detailed presentation of both particles may reduce KHL learners' over-reliance on the particle -ey. In addition, a brief outline of common patterns of the usages of the locative-static and locative-dynamic particle may be a good starting point in giving an idea of how they are used, provided that learners are aware that they are not fixed patterns, and that they understand 'why' the patterns are constructed in such way. Explicitly outlining common 'dynamic' verbs that are subject to confusion may also be efficient for particular error types, but cannot serve as a comprehensive or long-term solution.

(c) Lexical:

Lexical errors in this study were identified based on the distortion of semantic properties. Unlike previous KFL lexical error studies, errors of redundancy were most frequent, followed by errors of simplification, semantic similarity and inappropriate honorifics. The nature of lexical errors in this study shows KHL learners' language characteristics that differ from KFL learners, especially in errors of redundancy and simplification which show their restricted lexical span acquired from home or community settings, and subsequent transfer of such colloquial speech to writing. Errors of semantic similarity show KHL learners' incapability to grasp the conceptual or contextual differences between semantically similar words, where they are usually introduced a new word as a synonym of another already-acquired word which they may perceive to be interchangeable without any structural or contextual constraints. The lack of a learner-specific dictionary also appears to contribute to the cause of such errors. Errors of inappropriate honorifics also show KHL learners' ignorance of socio-cultural relationships in words, which appears to be both interlingual and intralingual with the

lack of honorific terms in English. Collocative errors similarly show their weak ability to use words appropriately in context.

The results overall show that KHL learners possess a relatively wide, but incomplete lexicon which is generally limited to casual registers, and with restricted lexical 'knowledge' that encompasses all information required to use the word appropriately in context, such as conceptual and pragmatic knowledge of the word. While traditional vocabulary teaching methods consisting of memorising vocabulary lists combined with a limited presentation of sufficient information of words in textbooks appears to be the general pedagogical deficiency in terms of current vocabulary instruction. As a result, a detailed discussion of learner errors leads to a need for a learner-specific dictionary to be made available as a pedagogical resource as vocabulary learning is too broad to be limited to the classroom. Current Korean dictionaries mainly consist of Korean-Korean or Korean-English/English-Korean dictionaries that do not outline the various contextual information of the word, and often are too simple or complex for the language learner to fully comprehend the usages of a word they wish to learn.

Using a dictionary as a means of learning vocabulary is a controversial issue, but since in-classroom instruction is limited and cannot satisfy individual learner needs, a well-structured learner-specific dictionary proposes to assist learners both in and out of the classroom, provided that they are structured with a sufficient number of examples and information that they can utilise effectively for decoding lexical information and accompanied by classroom activities where necessary. A learner-specific dictionary should include not only the definition of the word, but also information on the relationships between words, syntax and socio-cultural implications. It is assumed that such a dictionary will be a valuable asset to KHL teaching as they generally lack morphological and contextual knowledge of words.

In addition to a learner-specific dictionary, instruction within the KHL classroom needs to particularly focus on building learner awareness of the differences between spoken and written forms, especially in semantically similar words that differ at the socio-cultural level such as in social class, text type, whether it is casual, general or academic, and so on. Such awareness may be improved by exposing learners to both communicative and written forms within the same topic, or implementing formal communication courses that train learners to speak more accurately to take advantage of

their tendency to write the way they speak. It is important that lexical instruction in particular is balanced between communicative and written instruction, considering that the nature of language acquisition of KHL learners is almost entirely communicative and contextual from the beginning.

8.2 Conclusion and Directions for Future Research

Error analysis has much to offer to heritage language research in that it can provide significant insights regarding heritage learners' language learning and present pedagogical implications in heritage language education. This study has achieved its aims by identifying error types and patterns of heritage learners, interpreting and explaining error sources and by offering detailed discussion of pedagogical implications. Further longitudinal research is required to build a strong theoretical and pedagogical framework for the development of KHL learner profiles as well as learner-specific curriculum and materials, where this study contributes to such gaps by examining detailed features of KHL learners' errors. With a recent increase in awareness of the importance of heritage language learning, the findings of this study reinforce the need to 'teach' Korean to its heritage students appropriately by offering a heritage language program as a core curriculum in established educational systems as they are currently largely left to the community to manage. It is crucial that future studies focus on strengthening the research base for policy-making on Korean heritage language education, which will contribute to increasing community and individual awareness of heritage language learning and teaching. Future research should also include examinations on heritage language or bilingual acquisition as well as effectiveness of pedagogical approaches for heritage learners. In addition, it may also be helpful to further develop a reusable and readable corpus based on the data used in this study, that other researchers can use to analyse different errors of different language groups, based on the same standard of error analysis (Kim Y-J, 2005). Heritage language research is an emerging field of interest, yet studies on KHL learners' language use are generally small-scale and inconclusive. Several important implications have been identified yet unanswered in the course of this study. First, the study noted some significant similarities and differences between KFL and KHL learners' language characteristics, but as the group of KHL learners are comprised of learners of a heterogenous language

background, it is important to establish the differences between KHL subgroups to make conclusive decisions when developing a KHL curriculum. Although this study examined and identified significant pedagogical implications for a broad group of intermediate KHL learners ranging from lower intermediate to upper intermediate level learners, undertaking EA in KHL subgroups may provide a better understanding of the process of KHL acquisition from least proficient to near-native learners, which will provide a stronger framework for developing a detailed KHL-specific curriculum.

Second, it would also be useful to examine in more detail how the nature of the common high frequency errors between KFL and KHL learners differ, which could provide implications or general hypotheses about the innate knowledge that KHL learners possess. In addition, it is important to perform a needs analysis of KHL learners as the high frequency and high occurrence rate errors may not necessarily correspond to what they actually perceive to be 'difficult' to learn. Such information would benefit the development of courses or materials suited to KHL learners and also may assist in the structuring of a KHL teacher development program.

In regard to pedagogical strategies, this study raises the question of whether explicit instruction or implicit instruction would benefit KHL learners more, which is an essential component to examine in future studies. The effectiveness of implicit or explicit instruction needs to be researched on different levels (orthographic, grammatical and lexical) and individual error types within those levels. It is necessary to make conclusive judgments for this question through extensive experimental research and remedial classes for future development of KHL materials.

Appendix

Category	Subcategory	Further subcategory
(1) Substantives	Noun NN	Common nouns NNG Proper nouns NNP
	Pronoun NP	Dependent noun NNB
	Numeral NR	
(2) Predicates	Verb VV	
	Adjective VA	
	Auxiliary predicate VX	Positive auxiliary VCP Negative auxiliary VCN
	Copula VC	, , , , , , , , , , , , , , , , , , ,
	Determiner MM	
(3) Modifiers	Adverb MA	General adverb MAG Conjunctive adverb MAJ
(4) Independent	Interjection IC	
(5) Postpositions	Case particle JK	Nominative JKS Complement JKC Genitive JKG Accusative JKO Adverbial JKB Vocative JKV Quotative JKQ
	Special particle JX	
	Conjunctive JC	
(6) Dependents	Ending E	Pre-final EP Final EF Connective EC Noun suffix ETN Determiner suffix ETM
	Prefix XP	Noun prefix XPN
	Suffix XS	Noun derivation suffix XSN Verb derivation suffix XSV Adjective derivation suffix XSA (Adverb derivation suffix XSB)
	Stem XR	
(7) Symbols	Full stop, question mark, exclamation mark	SF
	Comma, middle point, colon, slash	SP
	Quotation mark, bracket, dash	SS
	Ellipsis	SE

	Hyphen(tilde, hide, omit)	SO
	Loan words	SL
	han.ca	SH
	Other symbols	
	(mathematical symbol,	SW
	currency symbol)etc	
	Noun assumed clause	NF
	Predicate assumed	NV
	clause	
	Numbers	SN
	Unidentifiable clause	NA

References

- Abbott, G. 1980. Toward a more rigorous analysis of foreign language errors. *IRAL*, 18: pp. 121-134.
- ACARA 2011. The Shape of the Australian Curriculum: Languages. Sydney: ACARA.
- ACARA. 2016. *The Australian Curriculum: Korean (F-10)* [Online]. Sydney: Australian Curriculum, Assessment and Reporting Authority.
- Adolphs, Svenja, Knight, Dawn, et al. 2011. Capturing context for heterogeneous corpus analysis: Some first steps. *International Journal of Corpus Linguistics*, 16-3: pp. 305-324.
- Au, Terry Kit-fong, Knightly, Leah M, et al. 2002. Overhearing a language during childhood. *Psychological science*, 13-3: pp. 238-243.
- Bak, Jong Ho. 2009. A study on the particles errors of Korean learner. Say.kwuk.e.kyo.ywuk, 82-0: pp. 127-143.
- Bartholomae, David. 1980. The study of error. *College Composition and Communication*, 31-3: pp. 253-269.
- Beaudrie, Sara M. 2012. A corpus-based study on the misspellings of Spanish heritage learners and their implications for teaching. *Linguistics and Education*, 23-1: pp. 135-144.
- Bell, R.T. 1974. Error analysis: a recent pseudoprocedure in applied linguistics. *International Journal of Applied Linguistics*, 25-26-35-49.
- Benmamoun, Elabbas, Montrul, Silvina, et al. 2013. Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics*, 39-3/4: pp. 129-181.
- Berman, R. 1987. Cognitive principles and language acquisition. *In:* PFAFF, C. (ed.) *First and second language acquisition processes.* Cambridge, Mass: Newbury House.
- Biber, Douglas, Reppen, Randi, et al. 1998. *Corpus linguistics : investigating language structure and use*, New York, Cambridge New York : Cambridge University Press.
- Braun, Sabine. 2007. Integrating corpus work into secondary education: From data-driven learning to needs-driven corpora. *ReCALL*, 19-03: pp. 307-328.
- Brown, H. Douglas. 2007. *Principles of Language Learning And Teaching*, Longman Publishing Group.
- Brown, L. & Yeon, J. 2015. The Handbook of Korean Linguistics, Wiley.
- Burns, A. & Richards, J.C. 2012. *The Cambridge Guide to Pedagogy and Practice in Second Language Teaching*, Cambridge University Press.
- Butler, Jonathan. 1990. Concordancing, Teaching and Error Analysis: Some Applications and a Case Study. *System*, 18-3: pp. 343-349.
- Celce-Murcia, M. 2001. Language teaching approaches: An overview. *In:* CELCE-MURICA, M. (ed.) *Teaching English as a second or foreign language*. Boston, MA: Heinle & Heinle.
- Chevalier, Joan F. 2004. Heritage language: Theory and practice. *Heritage Language Journal*, 2-1: pp. 1-19.
- Chinen, Kiyomi & Tucker, G Richard. 2005. Heritage language development: Understanding the roles of ethnic identity and Saturday school participation. *Heritage Language Journal*, 3-1: pp. 27-59.
- Cho, Grace. 2000. The role of heritage language in social interactions and relationships: Reflections from a language minority group. *Bilingual Research Journal*, 24-4: pp. 369-384.

- Cho, Grace, Cho, Kyung-Sook, et al. 1997. Why ethnic minorities want to develop their heritage language: The case of Korean-Americans. *Language*, *Culture and Curriculum*, 10-2: pp. 106-112.
- Cho, In Jung. 2006. Comparative Linguistic Analysis of Subject and Object Case Marking Errors by English Speaking Learners of Korean. *Journal of Korean Language Education*, 17-3: pp. 281-299.
- Cho, Nammin. 2007. A study of Korean language learners' interlanguage -A research and analysis of Korean language learners' closure duration timing of the intersyllabic gemination. *Journal of Korean Language Education*, 18-2: pp. 357-400.
- Choe Yoon, Inshil 2007. A preliminary study for efficient learning of Korean orthography for Korean children living in English speaking countries. *Journal of Korean Language Education*, 18-1: pp. 459-486.
- Chomsky, N. 1986. Knowledge of Language: Its Nature, Origin, and Use, Praeger.
- Choo, M. & O'Grady, W.D. 2003. *The Sounds of Korean: A Pronunciation Guide*, University of Hawai'i Press.
- Coady, James 1997. L2 vocabulary acquisition: A synthesis of the research. *In:* COADY, J. & HUCKIN, T. (eds.) *Second language vocabulary acquisition : a rationale for pedagogy.* New York: Cambridge University Press.
- Conrad, C. 2001. *Second Language Acquisition* [Online]. Available: http://chris1066.tripod.com/theories.html [Accessed 01/08/14 2014].
- Conrad, S. M. 1999. The importance of corpus-based research for language teachers. *System*, 27-1: pp. 1-18.
- Corder, Stephen Pit. 1979. Language Distance and the Magnitude of the Language Learning Task. *Studies in Second Language Acquisition*, 2-01: pp. 27-36.
- Corder, Stephen Pit. 1981. Error analysis and interlanguage, Oxford University Press.
- Crompton, Peter. 2005. 'Where', 'In Which', and 'In That': A Corpus-Based Approach to Error Analysis. *RELC Journal*, 36-2: pp. 157-176.
- Dagneaux, Estelle, Denness, Sharon, et al. 1998. Computer-aided error analysis. *System*, 26-2: pp. 163-174.
- Díaz-Negrillo, Ana & Valera, Salvador. 2010. A learner corpus-based study on error associations1. *Procedia Social and Behavioral Sciences*, 3-0: pp. 72-82.
- Dulay, H.C. & Burt, M.K. 1974. Errors and strategies in child second language acquisition. *TESOL Quarterly*, 8-2: pp. 129-136.
- Dulay, H.C., Burt, M.K., et al. 1982. Language two, Oxford University Press.
- Eckert, Penelope 2006. Communities of Practice. *In:* BROWN, K. (ed.) *Encyclopedia of language and linguistics*. Elsevier.
- Ellis, Rod 2002. The place of grammar instruction in the second/foreign language curriculum. *In:* HINKEL, E. & FOTOS, S. (eds.) *New perspective on grammar teaching in second language classrooms.* Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Ellis, Rod. 2006. Current Issues in the Teaching of Grammar: An SLA Perspective. *TESOL Quarterly*, 40-1: pp. 83-107.
- Ellis, Rod. 2008. *The study of second language acquisition*, Oxford, Oxford University Press.
- Eom, Ki-Chul. 2002. Han.kwuk.e co.sa 'i/ka', 'ul/lul'uy ki.nung.kwa uy.mi yen.kwu [A functional and semantic study on Korean particles 'i/ka' and 'ul/lul']. *Tong.kwuk.e mwun.hak*, 14--: pp. 157-197.
- Fishman, J. 1972. The sociology of language: an interdisciplinary social science approach to language in society, Newbury House Publishers.

- Fishman, J. 2001. 300-plus years of heritage language education in the United States. *In:* PEYTON, J. K., RANARD, D. A. & MCGINNIS, S. (eds.) *Heritage Languages in America: Preserving A National Resource*. Illinois, CAL: McHenry.
- Ghadessy, Mohsen. 1989. Selection of developmental errors by students with different L1 backgrounds. *International Review of Applied Linguistics*, 27-1: pp. 53-63.
- Gitsaki, Christina. 1998. Second language acquisition theories: Overview and evaluation. *Journal of Communication and International Studies*, 4-2: pp. 89-98.
- Goethals, M. 2003. E.E.T.: the European English Teaching vocabulary list. *In:* LEWANDOWSKA-TOMASZCZYK, B. (ed.) *Practical Applications in Language and Computers*. Frankfurt: Peter Lang.
- Gu, Y. & Johnson, R. K. 1996. Vocabulary learning strategies and language learning outcomes. *Language Learning*, 46-4: pp. 643-679.
- Gürsoy, Esim. 2011. The Critical Period Hypothesis Revisited: The Implications for Current Foreign Language Teaching to Young Learners.
- Haded, Mohamed S. 1998. The merits of exploiting error analysis in foreign language teaching and learning. *RELC Journal*, 29-1: pp. 55-65.
- Hadley, A.O. 2001. *Teaching Languages in Context*, HEINLE & HEINLE PUBL Incorporated.
- Halliday, M. A. K. 1973. *Explorations in the functions of language*, London, Edward Arnold.
- Hammerly, Hector. 1971. Recent Methods and Trends in Second Language Teaching. *Modern Language Journal*, 55-8: pp. 499.
- Han, Song-Hwa. 2001. Mal.mwung.chi.wa hak.sup.ca o.lywu.lul i.yong.han, woy.kwuk.in hak.sup.ca.lul wi.han han.kwuk.e e.hwi sa.cen.uy uy.mi ki.swul [Describing meanings in a Korean foreign language learner lexical dictionary using learner corpus and errors]. *Han.kwuk.e.ceng.po.hak*, 4: pp. 91-107.
- Hasko, Victoria. 2011. Qualitative Corpus Analysis. The Encyclopedia of Applied Linguistics.
- Hatoss, A. 2004. Multiculturalism and mother tongue maintenance: the case of the Hungarian diaspora in Queensland. *Australian Review of Applied Linguistics*, 27-2: pp. 18-31.
- Hedge, T. 2000. Teaching and Learning in the Language Classroom: A Guide to Current Ideas about the Theory and Practice of English Language Teaching, OUP Oxford.
- Hinkel, Eli & Fotos, Sandra 2002. From theory to practice: a teacher's view. *In:* HINKEL, E. & FOTOS, S. (eds.) *New perspectives on grammar teaching in second language classrooms.* Mahwah, NJ: Lawrence Erlbaum.
- Ho, David Y. F. 1986. Two contrasting positions on second-language acquisition: A proposed solution. *International Review of Applied Linguistics*, 24-1: pp. 35-47.
- Hoji, Hajime & Clancy, Patricia. 1990. *Japanese/Korean Linguistics*, Center for the Study of Language.
- Hong, Eunjin. 2004. The Error Analysis and Teaching Method of Vocabulary for KFL Learners. *Bilingual Research*, 25-0: pp. 331-358.
- Hu, Ruyun. 2012. Theory and practice in language studies. *Academy Publisher*, 2-3: pp. 596-604.
- Hymes, D.H. 1972. On communicative competence. *In:* PRIDE, J. B. & HOLMES, J. (eds.) *Sociolinguistics*. Harmondsworth, UK: Penguin.
- Jain, MP 1974. Error analysis: Source, cause and significance. *In:* RICHARDS, J. C. (ed.) *Error analysis: perspectives on second language acquisition.* London: Longman Group Limited.

- James, Carl. 1994. Don't shoot my dodo: On the resilience of contrastive and error analysis. *International Review of Applied Linguistics*, 32-3: pp. 179-200.
- James, Carl. 1998. Errors in language learning and use: exploring error analysis, Longman.
- Jeng, Kil-Nam. 2004. Kwuk-e o-lywu pwun-sek [Korean error analysis], Seoul, Korea, Han-kwuk-mwun-hwa-sa.
- Jo, Hye-Young. 2001. 'Heritage' language learning and ethnic identity: Korean americans' struggle with language authorities. *Language*, *Culture and Curriculum*, 14-1: pp. 26-41.
- Jung, Ji-Young. 2010. A Classroom Study on the Efficacy of Interactional Feedback for Korean Particles. *Journal of Korean Language Education*, 21-4: pp. 255-282.
- Jung, Jung-Duk. 2003. Woy.kwuk.in.ul wi.han.han.kwuk.e mwun.pep kyo.ywuk I [lit. Grammar Instruction for Foreigners]. 人文論叢, 10--: pp. 37-62.
- Kagan, Olga. 2005. In Support of a Proficiency-based Definition of Heritage Language Learners: The Case of Russian. *International Journal of Bilingual Education and Bilingualism*, 8-2-3: pp. 213-221.
- Kaltenbock, Gunther & Mehlmauer-Larcher, Barbara. 2005. Computer corpora and the language classroom: on the potential and limitations of computer corpora in language teaching. *ReCALL*, 17-01: pp. 65-84.
- Kandler, Anne, Unger, Roman, et al. 2010. Language shift, bilingualism and the future of Britain's Celtic languages. *Philosophical Transactions of the Royal Society*, 365: pp. 3855-3864.
- Kang, Beom-mo, Kim, Hung-gyu, et al. 2003. Variation across Korean text registers. *In:* WILSON, A., RAYSON, P. & MCENERY, T. (eds.) *A Rainbow of Corpora*. Munich: Lincom-Europa.
- Kang, Hyun-Sook & Kim, In-Sop. 2011. Perceived and actual competence and ethnic identity in heritage language learning: a case of Korean-American college students. *International Journal of Bilingual Education and Bilingualism*, 15-3: pp. 279-294.
- Kang, Jennifer Yusun. 2012. Bilingual PA and its influence on biliteracy for Korean English as a foreign language learners. *Reading and Writing*, 25-6: pp. 1307-1326.
- Kang, Manjin & Chang, Sunmee. 2014. An analysis of lexical errors of Korean language learners: Some American college learners' case. *Pan-Pacific Association of Applied Linguistics*, 18-2: pp. 93-110.
- Kang, Yoonjung. 2013. L1 phonotactic restrictions and perceptual adaptation: English affricates in Contemporary Korean. *Journal of East Asian Linguistics*, 22-1: pp. 39-63.
- Kennedy, Graeme D. 1998. An introduction to corpus linguistics, England, Longman
- Ketabi, Saied & Shahraki, Sara Hashemi. 2011. Vocabulary in the Approaches to Language Teaching: From the Twentieth Century to the Twenty-first.
- Kim, Chul-Kyu. 2009a. Personal pronouns in English and Korean texts: A corpus-based study in terms of textual interaction. *Journal of Pragmatics*, 41-10: pp. 2086-2099
- Kim, Chung-Sook & Nam, Ki-Chun. 2002. An analysis of Error in Using Korean Particles by Native Speakers of English. *Korean Language Education*, 13-1: pp. 27-45.
- Kim, Eun-Joo. 2002a. Development of writing accuracy through error feedback. *Journal of Korean Language Education*, 13-1: pp. 279-306.

- Kim, Eun Joo 2003a. An analysis of particle errors by heritage and non-heritage learners of Korean. *In:* YOU, C. (ed.) *Korean Language in America 8: Papers from the Eighth Annual Conference and Professional Development Workshop.* Berkeley, CA: American Association of Teachers of Korean.
- Kim, H.H. 2001a. Issues of heritage learners in Korean language classes. *The Korean Language in America*, 6: pp. 257-274.
- Kim, Hi-Sun 2008a. Heritage and Nonheritage Learners of Korean: Sentence Processing Differences *In:* KONDO-BROWN, K. & BROWN, J. D. (eds.) *Teaching Chinese, Japanese, and Korean Heritage Language Students: Curriculum Needs, Materials, and Assessment.* New York and London: Taylor & Francis Group, LLC.
- Kim, Hojung & Kang, Namwook. 2010. Korean Learners' Grammar Acquisition: Focusing on the postpositional particle {i/ga} and {eun/nun}. *The Korean Language and Literature*, -156: pp. 5-41.
- Kim, Hyun-Ji. 2008b. A study on the cue of selection of the case particles based on the interlanguage in Korean lanugage as foreign studies. *Journal of Korean Language Education*, 19-2: pp. 215-240.
- Kim, Jeong-Eun. 2015. Analysis on Interrelation between Error of Particles by Learners of Korean Language Education Contents. *Journal of Korean Language Education*, 26-4: pp. 1-38.
- Kim, Jeong-Eun & Lee, So-Young. 2004. Interlanguage Study of Korean Learners About Using ul/lul, i/ka, ey, eyse. *Bilingual Research*, 24-0: pp. 87-108.
- Kim, Jieun. 2009b. Replacement Error Analysis of Korean Learner in Using the Particles "i/ga" and "eun/neun". *En.e.kwa.hak.yen.kwu*, 48-0: pp. 1-40.
- Kim, Jung-Sup 2002b. Focused on the error analysis different mother tongue = A Research for the Korean Learners' errors in the connecting ending words. *Journal of Korean Language Education*, 13-2: pp. 87-109.
- Kim, Mi-Hyoung. 2011. An analysis of the basic premises and functions of Korean particles i/ka and eun/neun. *Discourse and Cognition*, 18-3: pp. 23-64.
- Kim, Mi-Ok. 2001b. Macchwumpep olyuey kwanhan yenkwu (A study on spelling errors in writing). *Teaching Korean as a Foreign Language*, 27: pp. 119-139.
- Kim, Mi-Ok. 2003b. A statistical analysis of lexical errors in Korean language learners. *Journal of Korean Language Education*, 14-3: pp. 31-52.
- Kim, Minju. 2009c. The intersection of the perfective and imperfective domains: A corpus-based study of the grammaticalization of Korean aspectual markers. *Studies in Language*, 33-1: pp. 175-214.
- Kim, Namkil. 2002c. The importance of grammar in Korean language teaching. *Teaching Korean as a Foreign Language*, 27: pp. 119-140.
- Kim, Soohee. 2013. When Keeping Up Means Falling Behind: The Dear Price of Stressing "Correct" Orthography in Teaching Korean as a Heritage Language. *The Korean Language in America*, 18: pp. 71-91.
- Kim, Sun Hee Ok. 2012. Learner background and the acquisition of discourse features of Korean in the australian secondary school context. *Australian Review of Applied Linguistics*, 35-3.
- Kim, You-Jeong. 2005. Standards for Error Analysis of Corpus by Learners of Korean as a Second Language *Journal of Korean Language Education*, 16-1: pp. 45-75.
- Kim, Young-Suk. 2010. Componential skills in early spelling development in Korean. *Scientific Studies of Reading*, 14-2: pp. 137-158.

- Kim, Youngjoo. 2006. Error analysis in the uses of particles and verb endings of advanced Korean learning English speakers. *Teaching Korean as a Foreign Language*, 31: pp. 129-152.
- Kim, Yu-Mi. 2002d. A study of error analysis of Korean learners by using 'learner corpus'. *Teaching Korean as a Foreign Language*, 27: pp. 141-168.
- Knightly, Leah M., Jun, Sun-Ah, et al. 2003. Production benefits of childhood overhearing. *Acoustical Society of America*, 114-1: pp. 465-474.
- Ko, Seok-Ju. 2002. Error analysis of postposition in learner's corpus. *Teaching Korean as a Foreign Language*, 27: pp. 543-570.
- Kondo-Brown, Kimi. 2003. Heritage language instruction for post-secondary students from immigrant backgrounds. *Heritage Language Journal*, 1-1: pp. 1-25.
- Kondo-Brown, Kimi. 2005. Differences in Language Skills: Heritage Language Learner Subgroups and Foreign Language Learners. *Modern Language Journal*, 89-4: pp. 563-581.
- Kondo-Brown, Kimi 2008. Issues and Future Agendas for Teaching Chinese Japanese and Korean Heritage Students. *In:* KONDO-BROWN, K. & BROWN, J. D. (eds.) *Teaching Chinese, Japanese, and Korean Heritage Language Students:* Curriculum Needs, Materials, and Assessment. New York and London: Taylor & Francis Group, LLC.
- Kondo-Brown, Kimi. 2010. Curriculum Development for Advancing Heritage Language Competence: Recent Research, Current Practices, and a Future Agenda. *Annual Review of Applied Linguistics*, 30: pp. 24-41.
- Kong, Grace. 2011. The roles of attitude, motivation, and identity in heritage language learning among Korean Americans. *Teachers College, Columbia University Working Papers in TESOL & Applied Linguistics*, 11-2: pp. 94-119.
- Krashen, S.D. 1973. Lateralization, language learning, and the critical period: Some new evidence. *Language Learning*, 23-1: pp. 63-74.
- Krashen, S.D. 1982. Principles and practice in second language acquisition, Pergamon.
- Krashen, S.D. 1993. The Effect of Formal Grammar Teaching: Still Peripheral. *TESOL Quarterly*, 27-4: pp. 722-725.
- Krashen, S.D. & Terrell, T.D. 1983. *The natural approach: language acquisition in the classroom*, Pergamon Press.
- Kwak, Jinjoo & Kim, Jieun. 2007. Korean heritage learners' self-assessment of writing activities in the student workbook. *Journal of Korean Language Education*, 18-2: pp. 1-19.
- Lauer, Mark. 1995. Corpus Statistics Meet the Noun Compound: Some Empirical Results. *Proceedings of the 33rd Annual Meeting of the Association for Computational Linguistics, Boston, MA*.: pp. 47-54.
- Lave, J. & Wenger, E. 1991. Situated Learning: Legitimate Peripheral Participation, Cambridge University Press.
- Lee-Ellis, Sunyoung. 2011. The elicited production of Korean relative clauses by heritage speakers. *Studies in Second Language Acquisition*, 33: pp. 57-89.
- Lee, Hai-Young. 2012. A discourse analysis of oral presentations in Korean language classes: Focusing on the style characteristics of heritage and non-heritage learners. *Journal of Korean Language Education*, 23-4: pp. 283-306.
- Lee, Hangyu. 2007. A Pragmatic and Sociocultural Approach to the So-Called 1st Person Pronoun wuli in Korean. *Discourse and Cognition*, 14-3: pp. 155-178.
- Lee, Hee-Seung, Ahn, Byung-Hee, et al. 2010. *Hankul macchwumbep kangui [A lesson on Korean orthography]*, Sin-ku mwun-hwa-sa, Lee, Jay-Sun.

- Lee, Hye-Kyung. 2015. A Corpus-Pragmatic Analysis of Wuli. *Discourse and Cognition*, 22-3: pp. 59-78.
- Lee, I. & Ramsey, S.R. 2000. *The Korean Language*, State University of New York Press.
- Lee, Jae-Uk & Nam, Ki-Chun. 2001. A study on vocabulary learning strategies for Korean language learner. *Wu.li.e.mwun.yen.kwu*, 17-0: pp. 25-53.
- Lee, Jinsook. 2002a. The Korean language in America: The role of cultural identity in heritage language learning. *Language, Culture and Curriculum*, 15-2: pp. 117-133.
- Lee, Jinsook, Shin, Sarah J., et al. 2008. Korean heritage language education in the United States: The current state, opportunities, and possibilities. *Heritage Language Journal*, 6-2: pp. 1-20.
- Lee, Jung Hee. 2002b. [Particle and connective errors of beginner-level learners of Korean]. *The Study of Etymology*, 5: pp. 169-188.
- Lee, Jung Hee. 2003. A Study on the Korean as a Second Language Lexical Error of Beginning Level. *Bilingual Research*, 22-0: pp. 299-318.
- Lee, Jung Hee. 2011. Hankwuke haksupcauy olyu yenkwu Seoul, Pakiceng.
- Lee, Sue Ann & Iverson, Gregory K. 2012a. Stop consonant productions of Korean–English bilingual children. *Bilingualism: Language and Cognition*, 15-02: pp. 275-287.
- Lee, Sue Ann & Iverson, Gregory K. 2012b. Vowel category formation in Korean-English bilingual children. *Journal of Speech, Language, and Hearing Research*, 55-5: pp. 1449-1462.
- Lee, Sun-Hee, Jang, Seokbae, et al. 2009. Annotation of Korean learner corpora for particle error detection. *CALICO Journal*, 26-3: pp. 529-544.
- Leech, G. 1997. Teaching and language corpora: a convergence. *In:* WICHMANN, A., FLIGELSTONE, S., MCENERY, T. & KNOWLES, G. (eds.) *Teaching and Language Corpora*. London: Longman.
- Lim, Seong-Kyu. 2011. "ey, ay" pyo.ki.uy kyo.ywuk pang.pep yen.kwu [A study on teaching 'ey, ay' orthography]. *Mwun.pep.kyo.ywuk*, 14-0: pp. 309-335.
- Liu, N., Musica, A., et al. 2011. Challenges and Needs of Community-based Heritage Language Programs and How They Are Addressed. *Heritage Briefs*. Washington, DC: Center for Applied Linguistics (CAL).
- Long, Michael H. 1981. Input, interaction, and second-language acquisition. *Annals of the New York Academy of Sciences*, 379-1: pp. 259-278.
- Long, Michael H. 1996. The role of the linguistic environment in second language acquisition. *In:* RITCHIE, W. C. & BAHTIA, T. K. (eds.) *Handbook of second language acquisition*. New York: Academic Press.
- Long, Michael H. 1997. Focus on form in Task-Based Language Teaching [Online]. McGraw-Hill Companies. Available: www.mhhe.com [Accessed June 23 2014].
- Long, Michael H. 2014. Second Language Acquisition and Task-Based Language Teaching, John Wiley & Sons.
- Lott, David. 1983. Analysing and counteracting interference errors. *ELT Journal*, 37-3: pp. 256-261.
- Lynch, Andrew. 2003. The relationship between second and heritage language acquisition: Notes on research and theory building. *Heritage Language Journal*, 1: pp. 1-18.
- Maemura, Kazuyaki & Kim, Myung-Soon. 2017. Il.pon.in han.kwuk.e hak.sup.ca.lul wi.han '-ess.ess-' kyo.ywuk pang.an [lit. Pedagogical methods for teaching '-

- ess.ess' to Japanese Korean language learners'. *Chong.lam.e.mwun.kyo.ywuk*, 62-0: pp. 151-176.
- Mahlberg, Michaela. 2006. Lexical cohesion: Corpus linguistic theory and its application in English language teaching. *International Journal of Corpus Linguistics*, 11-3: pp. 363-383.
- Martin, Marilyn. 1984. Advanced Vocabulary Teaching: The Problem of Synonyms. *The Modern Language Journal*, 68-2: pp. 130-137.
- Mauranen, Anna 2004. Spoken corpus for an ordinary learner. *In:* SINCLAIR, J. M. (ed.) *How to Use Corpora in Language Teaching*. Amsterdam/Philadelphia: John Benjamins.
- McEnery, Tony & Wilson, Andrew. 2001. *Corpus Linguistics*, Edinburgh, Edinburgh University Press.
- McEnery, Tony & Xiao, Richard 2010. What corpora can offer in language teaching and learning. *In:* HINKEL, E. (ed.) *Handbook of research in second language teaching and learning.* London & New York: Routledge.
- McLaughlin, Barry. 1987. Theories of second language learning, London, Edward Arnold.
- McLaughlin, Barry. 1990. "Conscious" versus "Unconscious" Learning. *TESOL Quarterly*, 24-4: pp. 617-634.
- Montrul, Silvina. 2010a. Current Issues in Heritage Language Acquisition. *Annual Review of Applied Linguistics*, 30: pp. 3-23.
- Montrul, Silvina. 2010b. Multiple interfaces and incomplete acquisition. *Lingua*, 121-4: pp. 591-604.
- Montrul, Silvina. 2013. How "native" are heritage speakers? *Heritage Language Journal*, 10-2: pp. 15-39.
- Mora, J.K. 2013. Second and foreign language teaching methods [Online]. Available: http://moramodules.com/ALMMethods.htm [Accessed 6 Aug 2014].
- Nam, Su Kyong & Chae, Sook Hee. 2004. A Study on the usage of conjunctive endings in Korean language learners' compositions. *Korean Language Education*, 15-1: pp. 33-50.
- Nation, I.S.P. 1990. Teaching and Learning Vocabulary, Heinle & Heinle.
- Nelson, Deanna L. 2008. A Context-Based Strategy for Teaching Vocabulary. *The English Journal*, 97-4: pp. 33-37.
- Nesselhauf, Nadja 2004. Learner corpora and their potential for language teaching. *In:* SINCLAIR, J. M. (ed.) *How to Use Corpora in Language Teaching*. Amsterdam/Philadelphia: John Benjamins.
- Nikolov, Marianne & Djigunovic, Jelena Mihaljevic. 2006. Recent research on age, second language acquisition, and early foreign language learning. *Annual Review of Applied Linguistics*, 26: pp. 234-260.
- O'grady, William, Kwak, Hye Young, et al. 2011a. An emergentist perspective on heritage language acquisition. *Studies in Second Language Acquisition*, 33-2: pp. 223-245.
- O'grady, William, Lee, M., et al. 2001. The acquisition of relative clausses by heritage and non-heritage learners of Korean as a second language: a comparative study. *Journal of Korean Language Education*, 12: pp. 283-294.
- O'Grady, William, Lee, On-Soon, et al. 2011b. Practical and theoretical issues in the study of heritage language acquisition. *Heritage Language Journal*, 8-3: pp. 23-40.
- Oakes, Michael P. 1998. *Statistics for Corpus Linguistics*, Edinburgh, Edinburgh University Press.

- Oh, Hyun Jung. 2011. Study for Teaching Method of particle {eun/nun} or {i/ka} in Korean Language. *Korean Semantics*, 35-0: pp. 189-213.
- Oriyama, Kaya 2017. Reforming Australian Policy for Chinese, Indonesian, Japanese, and Korean Heritage Languages. *The Routledge Handbook of Heritage Language Education*. Routledge.
- Oxford, Rebecca L. & Scarcella, Robin C. 1994. Second language vocabulary learning among adults: State of the art in vocabulary instruction. *System*, 22-2: pp. 231-243.
- Pak, Dong-Ho. 2007. How to analyse and teach Korean specific particles 'i/ka' and 'eul/leul'. *Foreign Languages Education*, 14-2: pp. 381-402.
- Park, Ju-Hyun. 2007. The Effect on Reduction of Form Errors in Student Writing According to Teacher Feedback Methods. *Journal of Korean Language Education*, 18-1: pp. 131-154.
- Phoocharoensil, Supakorn. 2014. Errors on the Relative Marker WHERE: Evidence from an EFL Learner Corpus. *The Southern Asian Journal of English Language Studies*, 20-1: pp. 1-20.
- Polinsky, Maria & Kagan, Olga. 2007. Heritage Languages: In the 'Wild' and in the Classroom. *Language and Linguistics Compass*, 1-5: pp. 368-395.
- Popescu, Teodora. 2013. A Corpus-based Approach to Translation Error Analysis. a Case-study of Romanian EFL Learners. *Procedia Social and Behavioral Sciences*, 83-0: pp. 242-247.
- Potowski, Kim. Presentation given at the Second National Conference on Heritage Languages in America. Forming Partnerships to Promote and Support Heritage Languages in Higher Education, October 20 2002 Tyson's Corner, VA.
- Pyun, Danielle Ooyoung & Lee-Smith, Angela. 2011. Reducing Korean heritage language learners' orthographic errors: the contribution of online and in-class dictation and form-focused instruction. *Language, Culture and Curriculum*, 24-2: pp. 141-158.
- Rhee, Seok-Chae, Kim, Jeongah, et al. 2007. An analysis of the errors produced by English, Chinese and Japanese native speakers with a focus on Korean phonological rules. *Journal of Korean Language Education*, 18-1: pp. 359-393.
- Richards, Jack. 1971. A non-contrastive approach to error analysis. *English Language Teaching*, 25-3: pp. 204-219.
- Richards, Jack. 1980. Second language acquisition: error analysis. *Annual Review of Applied Linguistics*, 1: pp. 91-107.
- Richards, Jack & Reppen, Randi. 2014. Towards a Pedagogy of Grammar Instruction. *RELC Journal*, 45-1: pp. 5-25.
- Richards, Jack & Rodgers, T.S. 2014. *Approaches and Methods in Language Teaching*, Cambridge University Press.
- Schmidt, Richard. 1992. Psychological Mechanisms Underlying Second Language Fluency. *Studies in Second Language Acquisition*, 14-04: pp. 357-385.
- Schumann, John H. 1987. The acculturation model for second language acquisition. *In:* GINGRAS, R. C. (ed.) *Second language acquisition and foreign language teaching.* Washington: Center for Applied Linguistics.
- Schumann, John H. 2013. Societal responses to adult difficulties in L2 acquisition: Toward an evolutionary perspective on language acquisition. *Language Learning*, 63-Suppl.1: pp. 190-209.
- Schumann, John H. & Stenson, Nancy. 1974. New frontiers in second language learning, Newbury House.

- Se, Hyuk. 1992. Hankwuke haksupcauy olywuwa kyocay kwusenguy panghyang [The trend of Korean learners' errors and structure of learning materials]. Senchengemwun, 20: pp. 265-292.
- Selinker, Larry. 1972. Interlanguage. IRAL, 10-3: pp. 209-232.
- Selinker, Larry. 1992. Rediscovering interlanguage, Longman.
- Sharoff, Serge. 2010. Balancing form and function in corpus research. *International Journal of Corpus Linguistics*, 15-3: pp. 419-424.
- Shin, Gi-Hyun. 2001a. Apjonpeop and an emerging new politeness strategy in contemporary Korean. *KAREC Discussion Paper*, 2-3: pp. 1-15.
- Shin, Seong-Chul. 2001b. An error analysis: orthographic errors produced by Australian KFL learners. *Teaching Korean as a Foreign Language*, 25-26: pp. 361-387.
- Shin, Seong-Chul. 2002. Australian students' lexical errors in Korean: Type, frequency and cause. *Journal of Korean Language Education*, 13-1: pp. 307-338.
- Shin, Seong-Chul. 2006a. Acceptability of some Korean lexical items judged by Korean L1 and L2 speakers. *Teaching Korean as a Foreign Language*, 31: pp. 153-171.
- Shin, Seong-Chul. 2006b. *High frequency errors in KFL and pedagogical strategies*. PhD, UNSW.
- Shin, Seong-Chul. 2006c. Substitution errors by English L1-KFL learners: Nominative-by-accusative. *International Review of Korean Studies*, 3-1: pp. 59-90.
- Shin, Seong-Chul. 2007a. Lexical errors caused by semantic similarity in Korean. *Teaching Korean as a Foreign Language*, 32: pp. 141-170.
- Shin, Seong-Chul. 2007b. Types and patterns of English L1 students' misspellings in Korean. *Journal of Korean Language Education*, 18-3: pp. 99-122.
- Shin, Seong-Chul. 2008. Locative substitution errors by English L1-KFL learners. *The Language and Culture*, 4-1: pp. 23-43.
- Shin, Seong-Chul 2010. The current state of Chinese, Indonesian, Japanese and Korean language education in Australian schools: four languages, four stories *In:* STURAK, K. & NAUGHTEN, Z. (eds.). Carlton, Vic: Asia Education Foundation.
- Shin, Seong-Chul. 2017. *Understanding L2 Korean Learner Errors: Description, Explanation and Implications*, Seoul, South Korea, Sotong Publishing Co.
- Shin, Seong-Chul & Joo, Alice. 2015. Lexical errors in Korean-Australian heritage learners' compositions. *Journal of Korean Language Education*, 26-English Edition: pp. 129-162.
- Shine, K.P. 2011. Differences between Second Language Learning and First Language Acquisition. *Language in India*, 11: pp. 736-744.
- Shum, Lisa L. 2001. The effect of environmental factors on bilingualism among Chinese and Korean Americans. *Working Papers in TESOL and Applied Linguistics*, 1-1: pp. 1-14.
- Sinclair, John McHardy. 1991. *Corpus, Concordance, Collocation*, Oxford, Oxford University Press.
- Smith, Neil 2005. Chomsky's science of language. *In:* MCGILVRAY (ed.) *The Cambridge Companion to Chomsky*. Cambridge: Cambridge University Press.
- Smith, Thomas B. 2008. Teaching Vocabulary Expeditiously: Three Keys to Improving Vocabulary Instruction. *The English Journal*, 97-4: pp. 20-25.
- Sohn, Ho-min. 1986. Patterns of American students' composition errors in Korean. Linguistic expeditions. Seoul: Hanshin Publishing Co. *Linguistics Expeditions*: pp. 487-528.
- Sohn, Ho-min. 1999. *The Korean language*, United States of America, Cambridge University Press, New York.

- Sohn, Hyang-Sook. 2006. Morphological basis of sonorant assimilation in Korean. *Studies in Phonetics, Phonology and Morphology*, 12-2: pp. 321-338.
- Song, Dae Heon. 2014. A Study on the Adverbial Case Particles of 'e' and 'eseo' for Korean Language Education. *Say.kwuk.e.kyo.ywuk*, 101-0: pp. 457-484.
- Swain, M. 1985. Communicative competence: Some roles of comprehensible input and comprehensible output in its development. *In:* GASS, S. & MADDEN, C. (eds.) *Input in second language acquisition.* Rowley, Mass: Newbury House.
- Taylor, Gordon. 1986. Errors and Explanations. *Applied Linguistics*, 7-2: pp. 144-166.
- Teubert, Wolfgang. 2005. My version of corpus linguistics. *International Journal of Corpus Linguistics*, 10-1: pp. 1-13.
- Touchie, Hanna Y. 1986. Second language learning errors their types, causes, and treatment. *JALT Journal*, 8-1: pp. 75-80.
- Tsui, Amy B M 2004. What teachers have always wanted to know and how corpora can help. *In:* SINCLAIR, J. M. (ed.) *How to Use Corpora in Language Teaching*. Amsterdam/Philadelphia: John Benjamins.
- Valdés, G. 2001. Heritage language students: Profiles and possibilities. *Heritage languages in America: Preserving a national resource*: pp. 37-77.
- Valdés, G. & Figueroa, R.A. 1994. Bilingualism and testing: a special case of bias, Ablex.
- Van Deusen-Scholl, Nelleke. 2003. Toward a Definition of Heritage Language: Sociopolitical and Pedagogical Considerations. *Journal of Language, Identity & Education*, 2-3: pp. 211-230.
- Wang, Hye-Sook. 1995. Yengehwacauy hankwuke cakmwuney natanan ehwisang olyu pwunsek [An analysis of lexical errors in the Korean compositions produced by English speakers]. *Seoul: Bilingual Research*, 12: pp. 383-399.
- Wang, Min, Park, Yoonjung, et al. 2006. Korean-English biliteracy acquisition: Crosslanguage phonological and orthographic transfer. *Journal of Educational Psychology*, 98-1: pp. 148-158.
- Yang, Sunim. 2007. An error analysis on Korean liaison of the Chinese learner's language. *Journal of Korean Language Education*, 18-3: pp. 123-144.
- Yang, Wenfen. 2010. A tentative analysis of errors in language learning and use. *Journal of Language Teaching and Research*, 1-3: pp. 266-268.
- Yi, Miji. 2013. Study on Methods of Presenting 'i/ka' and 'eun/neun' in Korean Language Textbooks for beginners. *Korean Semantics*, 42-0: pp. 407-441.
- Yoon, Juntae, Choi, Key-Sun, et al. 2001. A corpus-based approach for Korean nominal compound analysis based on linguistic and statistical information. *Natural Language Engineering*, 7-03: pp. 251-270.
- Yoon, Kyuchul & Brew, Chris. 2006. A linguistically motivated approach to graphemeto-phoneme conversion for Korean. *Computer Speech and Language*, 20-4: pp. 357-381.
- You, Seok-Hoon. 1997. A Remedial Method of Teaching Korean Orthography. *The Korean Language in America*, 2: pp. 57-69.
- Zughoul, Muhammad Raji. 1991. Lexical choice: Towards writing problematic word lists. *IRAL: International Review of Applied Linguistics in Language Teaching*, 29-1: pp. 45.