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Reducing Korean heritage language learners’ orthographic errors:
the contribution of online and in-class dictation and form-focused
instruction

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Heritage learners comprise a substantial proportion of second language learners, including L2 Korean learners. Previous studies have shown that the vast majority of heritage language learners display weakness in orthographic accuracy. Due to their previous extended exposure to oral discourse and limited experience in written language, heritage speakers tend to write the way they would speak, which results in frequent spelling errors. This study describes the construction and implementation of a dictation programme in a college Korean language classroom and discusses the use of dictation as a learning device to overcome orthographic errors. The online, computerised dictation programme and in-class dictation activities employed proved to be effective in sensitising heritage learners to written forms of the target language and helping them make connections between spoken sounds and written forms. Feedback provided by learners was positive and suggested that the approach had the intended effect on learning processes.

Keywords: Korean; Korean as a foreign language; heritage language learners; orthographic errors; dictation

Introduction

With an increasing enrolment of heritage learners in college foreign language classrooms, the subject of teaching and learning a heritage language (HL) has been gaining the second language acquisition community’s attention in recent years. With respect to the Korean language, heritage learners account for 70% or more of Korean as a foreign language learners in US colleges and universities (King, 1998; Sohn & Shin, 2007). A heritage language learner (HLL), according to Valdés (2001), is one ‘who is raised in a home where a non-English language is spoken, who speaks or at least understands the language, and who is to some degree bilingual in that language and in English’ (p. 38). In comparing typical HLLs with traditional foreign language learners, Campbell and Rosenthal (2000) pointed out that despite the fact that heritage learners have a head start in understanding and speaking the language, they often have limited ability in reading and writing the language accurately. In contrast, traditional foreign language learners ‘do not know as much as their HL peers’, but ‘what they know is correct’ (Campbell & Rosenthal, 2000, p. 170).

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Among the literacy skills, heritage learners often display weaknesses in standard orthography. Kagan and Dillon (2001) noted that many of the orthographic errors committed by heritage learners are not commonly made by traditional foreign language learners who, for the most part, can accurately write words they are familiar with. They further stated that although spelling rules have to be taught to both heritage and non-heritage groups, heritage learners need special attention and require more extensive work in achieving orthographic accuracy. According to Loewen (2008), heritage learners’ frequent orthographic mistakes are caused by their heavy reliance on verbal cues when they write or spell. Loewen, therefore, argues that heritage learners’ verbal competence can have a negative impact on orthographic competence. Studies show that due to extended, previous exposure to oral discourse, heritage learners have a strong tendency to write the way they would speak (Bermel & Kagan, 2000; Chevalier, 2004; H.H. Kim, 2001; Loewen, 2008).

With regard to Korean HLLs, several studies have indicated that writing skills, including orthographic accuracy, are the areas most in need of improvement (Jo, 2001; E.J. Kim, 2004, 2006; H.H. Kim, 2001; H.-Y. Kim, 2003; Lee & Kim, 2008; Sohn & Shin, 2007). While previous studies concerning Korean HLLs have pointed to their spelling accuracy as one of the biggest challenges in acquiring standard Korean, little research has been done on effective instructional strategies or tools to improve their orthographic skills. The purpose of this research is to identify common types of orthographic errors made by Korean heritage learners at the college level and, subsequently, to present explicit explanation of errors and dictation exercises as form-focused instruction (FFI) aimed at promoting HLLs’ awareness of formal features of Korean orthography. There are two parts to this research:

Study 1: Analysis and classification of common orthographic errors made by Korean heritage learners based on the database of their writing samples.
Study 2: The use of dictation activities as a teaching and learning tool to improve orthographic skills.

Background

We now turn to an examination of previous research in relation to three issues which form the background of the present research: (a) Korean heritage learners’ writing and orthographic skills; (b) the effects of explicit rule presentation and error correction; and (c) the use of dictation in the L2 (second/foreign language) classroom.

Korean HLLs’ writing and orthographic skills

E.J. Kim (2006) reported that Korean heritage learners find learning ‘standard’ Korean a challenge as they feel that there are considerable discrepancies between the standard, formal Korean taught in the college classroom and the colloquial Korean that they have been exposed to at home. In her survey data, heritage learners of both high proficiency and low proficiency expressed their desire to improve their writing skills and grammatical accuracy.

Jo (2001) also addressed the difficulty and complication that heritage learners experience when writing standard Korean, as HLLs tend to write the oral pronunciations of words rather than writing the correct written forms. While written Korean requires rigid forms and accurate spelling, oral Korean involves a range of variations including regional dialects, colloquial pronunciations, and idiolects. For instance, a number of Korean native
speakers pronounce the conjunctive suffix *ko* (‘and’) as *kwu* in speech, while they would always write *ko* in formal writing.3 The use of contracted word forms is another common phenomenon observed in colloquial Korean speech, which also poses challenges to heritage learners. The clausal connective form *ttaymwnuey* (‘because’), for example, is widely pronounced *ttaymey* in speech, but written Korean requires the use of the non-contracted form. Therefore, the mismatch between colloquial forms and standard forms and HLLs’ dominant knowledge of colloquial variations confuse heritage learners’ acquisition of standard orthography.

The data concerning the written work of Korean learners collected by H.H. Kim (2001) also show that many spelling errors made by heritage learners are due to their knowledge of colloquial speech. After assigning a composition task to both heritage and non-heritage learners, she compared the error patterns of the two groups and found that the majority of HLLs’ errors resulted from the transfer of their oral pronunciations into writing.

Even when heritage learners have learned the standard pronunciation of words (as opposed to regional or colloquial pronunciations), they still face difficulties in mastering accurate spelling, especially when a spelling does not correspond to its sound. In Korean, although there is a high degree of regularity between the spelling and phonetic systems, written letters do not always match speech sounds. This is particularly so because Korean orthography follows the rule of morphophonemic spelling as opposed to phonemic spelling. That is, ‘one morpheme is spelled in one invariant form regardless of various context-sensitive sound alternations’ (Sohn, 1999, p. 13). For instance, when the Korean verb *mek* ‘to eat’ is combined with the relativiser-suffix *nun*, it is spelled *mek-nun* but is phonetically realised as *meng-nun*. That is, the phoneme ‘k’, influenced by the following nasal sound ‘n’, is nasalised to ‘ng’. However, in writing, the original form of the verb *mek* is kept, irrespective of such a sound change, and is thus spelled *mek-nun* and not *meng-nun*.

<table>
<thead>
<tr>
<th>Syllabic combination</th>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mek + nun</td>
<td>→</td>
<td>mek-nun</td>
</tr>
</tbody>
</table>

Morphophonemic orthography does not seem to cause much difficulty to non-heritage learners of Korean. When non-heritage learners acquire Korean vocabulary or grammar, generally they are first introduced to the basic form of the word. As they learn the invariable stem of a verb or an adjective from its basic form, they understand that the original stem does not orthographically change when it is attached to various grammatical elements. This makes it easier for traditional foreign language learners to understand orthographic conventions and syntactic rules of Korean. The opposite appears to be the case for heritage learners who have advanced competence in listening and speaking. Unless they make a conscious effort to visualise the original form of the word and try to eliminate oral interference, their habit of inaccurately spelling the word tends to persist.

**Effects of explicit rule presentation and error correction**

In this study, explicit explanations of orthographic errors and dictation exercises are suggested as form-focused activities in the classroom – a way to raise learners’ consciousness of L2 orthographic features and, thereby, to reduce their spelling errors. The effects of explicit FFI have been discussed by a number of researchers (e.g. Doughty & Williams,
FFI, which refers to ‘any planned or incidental instructional activity that is intended to induce language learners to pay attention to linguistic form’ (Ellis, 2001, pp. 1–2), helps learners notice the differences between target forms and their interlanguage grammar (Doughty & Williams, 1998).

Within FFI research, several studies have advocated the presentation of explicit rules to facilitate the development of a learner’s grammatical or micro-level linguistic skills. For example, Lyster’s (2004) experimental study, which compared two learner groups on the acquisition of grammatical gender in L2 French, found that students who were involved in form-focused activities significantly outperformed the group without FFI. In an earlier study, Ellis (1993) compared three groups of students (i.e. rule group, rule with instances group, and random group) learning a grammatical element (i.e. ‘soft mutation’) in Welsh. The results revealed that the rule-based groups performed better than the random (or no explicit rules) group. A similar finding was obtained in DeKeyser’s (1995) study, in which explicit-deductive instruction proved to be more effective than implicit-inductive instruction for acquiring categorical rules. Robinson’s (1996) research, which involved four experimental groups of Japanese learners of English, also found that the group exposed to explicit rules scored significantly higher than all other groups on grammaticality judgement tests. Overall, these findings indicate that explicit rule presentation has beneficial effects on L2 acquisition, for it draws learners’ attention to target forms which are otherwise less salient and enables learners to apply the explicit knowledge to other similar items. These findings are relevant to the present study, which involves explicit presentation of orthographic rules and common error patterns.

Another type of FFI pertinent to the present study is corrective feedback on written errors. Studies of corrective feedback have generated debate over the efficacy of error correction in L2 writing. Truscott (1996) adopted a strong stance against written corrective feedback, claiming that error correction is ineffective and should be abandoned. Studies done by Kepner (1991) and Polio, Fleck, and Leder (1998) reported no positive evidence for error correction improving the accuracy of L2 writing. Other studies (Ashwell, 2000; Bitchener, 2008; Bitchener & Knoch, 2010; Ferris, 2004; Ferris & Roberts, 2001), however, supported the facilitative effects of corrective feedback on error reduction. Bitchener (2008), for instance, in his investigation of the efficacy of targeted error correction, found that English as a second language (ESL) students who received corrective feedback demonstrated a higher level of accuracy in the use of the English article system than those in the control groups. Bitchener and Knoch (2010) likewise presented results supporting the use of corrective feedback: their participants performed better when provided with written corrective feedback on targeted linguistic error categories. Though not conclusive, previous findings suggest that written corrective feedback has a positive influence on L2 development. L2 research on FFI, in general, stresses that ‘adult second language acquirers in particular need their errors made salient and explicit to them so that they can avoid fossilisation and continue developing linguistic competence’ (Ferris, 2004, p. 54). Furthermore, Ferris (2004) pointed out that, ‘L2 student writers value error feedback from their teachers and consider it extremely important to their success’ (p. 55). Based on previous studies, we posit that dictation can raise heritage learners’ consciousness of orthographic forms and help them notice their recurrent spelling errors. Dictation can serve as a task involving FFI in that it requires learners to ‘transcribe the text as accurately as possible’ and its follow-up work involves ‘various kinds of correction activities which focus directly on form’ (Kidd, 1992, p. 50).
The use of dictation in the L2 classroom

While the history of the use of dictation techniques in second and foreign language classrooms is long, L2 research related to dictation is scarce, and much of it was published decades ago. According to Davis and Rinvolucri (1988), dictation is a purposeful activity, particularly for learning languages in which the relationship between the sound system and spelling is complex. Dictation helps learners acquire ‘the regularities of sound/spelling’ as well as ‘the oddities of sound/spelling’ by training them in ‘decoding the speech sounds and recoding them in writing’ (p. 7). Unlike the commonly held idea that dictation is an outdated, teacher-centred method, Davis and Rinvolucri emphasise that learners play an active role in dictation by engaging themselves in creating a visual memory of the target language and by reinforcing their learning through self-correction during and after the dictation exercise.

While dictation is widely considered as a testing device, Morris (1983) maintained that dictation is also a useful learning tool that facilitates the acquisition of language structure and vocabulary as well as the development of writing accuracy. Demonstrating the varieties and types of L2 learner errors (e.g. comprehension errors, meaning errors, structural errors, and spelling errors) exhibited in dictated texts, Morris argued that dictation engages learners in the active reinterpretation of L2 text and, therefore, the value of dictation as an instructional tool should not be underestimated. Studies done by Valette (1964) and Whitaker (1976) also contend that dictation stimulates learners’ awareness of the grammar and written forms of the target language. Other studies indicate that dictation practice not only facilitates learners to connect speech with written forms but also helps learners to actively diagnose and repair their own grammatical mistakes (Davis & Rinvolucri, 1988; Frodesen, 1991; Rahimi, 2008). These studies indicate that dictation exercises can increase the learners’ ability to notice forms and to self-reflect on commonly overlooked errors including spelling mistakes.

In particular, as Savignon (1982) stated, dictation holds high face validity for L2 learners when their objective or needs relate to aural comprehension and spelling, because they perceive dictation as a reasonable assessment of these two skills. She further elaborated on the merits of dictation as a teaching activity:

This activity might be particularly useful with learners who have acquired L2 oral skills with little practice in writing, or whose writing skills have waned through lack of use. (Savignon, 1982, p. 46)

As dictation involves processing of both auditory and visual information, it can aid heritage learners in making connections between sounds and forms and in lessening their dependence on aural cues while writing.

Different languages present different orthographic challenges. Prior to implementing dictation activities in the classroom, as a first step towards understanding the orthographic obstacles for HLLs of Korean, we examined and classified spelling errors made by Korean heritage learners. The first study is discussed in the following section.

Study 1: building a database of common orthographic errors

In order to identify the common patterns of orthographic errors, Korean HLLs’ writing samples were collected over a 5-year period at two different colleges. This database constituted writing samples composed by 76 Korean heritage learners who were enrolled in intermediate-level college Korean classes and who had received zero to two semesters of formal
Korean language instruction. Among the 76 students, 62 were directly placed into the intermediate level through the placement test, and 14 students proceeded to the intermediate level after taking two semesters of beginning Korean courses.

The writing samples were derived from their take-home assignments throughout one semester. A total of 30 writing tasks were given to each student over a one-semester period and each student submitted 25–30 writing assignments. The entire database consisted of 1899 writing samples and each writing piece was about two paragraphs long. The topics or contents of these writing tasks varied and were related to the themes or the content of the lessons that they had studied in the classroom, such as campus life, vacation plans, and Korean proverbs.

From this database of writing samples, all the tokens containing orthographic errors were first extracted. In order to discern common orthographic errors from accidental mistakes or uncommon errors, error tokens were classified into the following 12 categories (see below). Each error category was created when the following two conditions were met: (1) the total occurrence of the same category errors was more than 20 times, and (2) the same category errors were made by more than 10 heritage students. Among the total number of orthographic errors, a total of 682 error tokens belonged to the 12 most common error categories. Not surprisingly, 9 of the 12 error types were those resulting from discrepancies between written and phonetic forms. In what follows, these 12 types of common orthographic errors are summarised along with major phonological rules in Korean that create obstacles to spelling accuracy.5

**Common error categories**

(1) Pronunciation of Korean syllables: the influence of the re-syllabification (or linking) rule. One distinctive feature of the Korean writing system (or Hankul) is that letters are combined to form syllabic blocks. When syllabic blocks are joined together, phonetic changes may occur. When a syllable ends in a consonant and is followed by a vowel, the final consonant of the preceding syllable is pronounced as if it were the initial consonant of the following syllable. This phenomenon is also referred to as the re-syllabification rule. Examples are provided below. A hyphen indicates the boundary between syllables.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. iss-e-yo ‘exist’</td>
<td>i-sse-yo</td>
</tr>
<tr>
<td>b. eps-e-yo ‘not exist’</td>
<td>ep-se-yo</td>
</tr>
</tbody>
</table>

Heritage learners of Korean with less mastery over standard orthography tend to spell ‘exist’ as i-sse-yo (ㅋ ssl ㅁ) rather than as iss-e-yo (ㅋ ssl ㅁ), which reflects their knowledge of its phonetic representation but violates orthographic rules. The perception of syllabic boundaries plays an important role in Korean orthography and, therefore, Korean HLLs need training in appropriately segmenting written syllables from the stream of speech they hear.

(2) Consonant assimilation: nasalisation. When syllable-final p, t, or k is followed by a nasal consonant m or n, the preceding consonant becomes m, n, or ng in order to smooth pronunciation as in (2a) and (2b). Again, the orthographic rule is to write the original consonant and not the sound that results from nasalisation.
Spelling  |  Phonetic realisation  
---|---  
a.  |  ip-ni-ta ‘is/am/are’  
b.  |  ap-ma-tang ‘front yard’  

(3) Consonant assimilation: lateralisation. The consonant n is pronounced l when it is preceded or followed by the consonant l. That is, the written form nl or ln becomes ll phonemically, as in (3a) and (3b). Korean heritage learners frequently commit the error of writing ll for nl or ln.

| Spelling | Phonetic realisation  
---|---  
a.  |  cin-li ‘truth’  
b.  |  naan-lo ‘stove’  

(4) Consonant assimilation: palatalisation. When syllable-final t or th is followed by i, t alters its sound to c, and th changes its sound to ch as a result of assimilation. Korean heritage learners commonly misspell th as ch or t as c.

| Spelling | Phonetic realisation  
---|---  
a.  |  kath-il ‘together’  
b.  |  kwur-il ‘firmly’  

(5) Phonetic variations of the consonant h. When the Korean consonant h appears between two voiced sounds, the sound h is weakened or becomes silent, though the h must be preserved in spelling. In writing, heritage learners commonly omit this h due to interference from their oral language.

| Spelling | Phonetic realisation  
---|---  
a.  |  manh-i ‘a lot’  
b.  |  cooh-a-yo ‘it is good’  

When h precedes or follows k, t, p, or c, the two phonemes merge into one phoneme, kh, th, ph, and ch, respectively. In that case, heritage learners tend to write the merged form kh, th, ph, or ch instead of observing the original forms.

| Spelling | Phonetic realisation  
---|---  
a.  |  e-tteh-key ‘how’  
b.  |  cooh-ta ‘be good’  

(6) Pronunciation of a syllable-final consonant cluster. When a syllable ends in two consonants, unless the syllable is followed by a vowel, only one of the two consonants is pronounced. Therefore, heritage learners who rely heavily on auditory information need to pay special attention to the silenced consonant letter.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. talk</td>
<td>‘chicken’ tak</td>
</tr>
<tr>
<td>b. salm</td>
<td>‘life’ sam</td>
</tr>
</tbody>
</table>

(7) Neutralisation of syllable-final consonants. When the following consonants appear in the syllable-final position, their sounds are neutralised to p, t, or k. The bilabial stops p, ph, and pp uniformly become p in the syllable-final position; syllable-final k, kh, and kk become k; and syllable-final t, th, tt, s, ss, c, ch, cc, and h become t. However, in writing, the original consonant should be preserved, which calls a heritage learner’s attention to the sound-form difference.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. aph</td>
<td>‘front’ Ap</td>
</tr>
<tr>
<td>b. pwu-ekh</td>
<td>‘kitchen’ pwu-ek</td>
</tr>
<tr>
<td>c. nac</td>
<td>‘daytime’ nat</td>
</tr>
</tbody>
</table>

(8) Reinforced pronunciation. When the consonants k, t, p, s, c are preceded by k, t, or p, their sounds are intensified into kk, tt, pp, ss, cc, respectively. However, the spelling should not reflect this phonological change.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. kwuk-swu</td>
<td>‘noodles’ kwuk-swu</td>
</tr>
<tr>
<td>b. sik-tang</td>
<td>‘restaurant’ sik-tang</td>
</tr>
</tbody>
</table>

(9) Reduction of cye, chye, and ccye. The semi-vowel y occurring after the affricates c, ch, and cc is not phonetically distinctive. That is, cye-, chye-, and ccye- may be pronounced exactly the same as ce-, che-, and cce-. Orthographically, a y should be written in that position. However, Korean heritage learners frequently leave it out.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Phonetic realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. man-cye-se</td>
<td>‘touch, and’ man-cye-se or man-ce-se</td>
</tr>
<tr>
<td>b. cyess-ta</td>
<td>‘defeated’ cyess-ta or cess-ta</td>
</tr>
</tbody>
</table>

(10) Vowels of similar sounds not distinguished orthographically. The phonetic distinction between the following vowels is not well observed among many native speakers of
Korean, although the vowels have to be spelled differently in writing. Thus, the following vowels cause spelling confusion in Korean heritage speakers:

(a) ey and ay may sound the same.
(b) yey and yay may sound the same.
(c) oy, oye, and way may sound the same.
(d) The difference between e and o and the difference between u and wu may not be so clear in colloquial speech.

(11) Colloquial conjugations of words. Some words or phrases may have more than one colloquial variation while one fixed form has to be used in writing. The mismatch between colloquial forms and standard forms makes heritage learners confused about standard orthography as shown in the following examples.

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Colloquial variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>man-tul-hye-ko ‘trying to make’</td>
</tr>
<tr>
<td>b.</td>
<td>ka-ko-siph-e-to ‘even though I want to go’</td>
</tr>
</tbody>
</table>

(12) Confusing word pairs. Some of the common spelling errors in heritage learners’ writings are attributed to the confusion of words that look or sound similar.

a. ka-lu-chi-ta ‘to teach’ versus ka-li-khi-ta ‘to point at’

b. ilh-e-pe-li-ta ‘to lose’ versus ic-e-pe-li-ta ‘to forget’

The database of common orthographic errors served as a useful source for discovering what kind of words and phrases are more likely to pose challenges for Korean heritage learners. The majority of error categories (Categories 1–9) indicate that Korean HLLs make frequent spelling mistakes when the words or phrases involve inconsistency between the sounds and spelled forms. Categories 10 and 11 prove that Korean HLLs rely heavily on aural cues in writing and have difficulty in visualising orthographic conventions. In addition, Korean HLLs must be specially alerted to word pairs that share similar sounds (Category 12).

**Study 2: dictation as a learning device to reduce orthographic errors**

Based on the common orthographic errors obtained from the learner writing database, a series of dictation activities for heritage learners of Korean was developed and implemented.

**Participants**

In this study, the participating learners were 18 college students who were enrolled in *Korean 133: Heritage Intermediate Course* between 2004 and 2006. This course was a separate-track class exclusively for heritage learners at the intermediate level and was offered every fall semester of the year. Students 1–4 belonged to 2004, students 5–10 belonged to 2005, and students 11–18 belonged to 2006. All the 18 students were directly placed into this class through the placement test. This course was taught by one of the researchers.
**Instrumentation**

In this study, students participated in two different modes of dictation activities: (a) computerised, online self-study dictation exercises, and (b) in-class dictation activities.

An online dictation website was created to help learners self-study orthographic conventions. The online website provided 398 *dictation* questions (a total of 1398 words) and 480 *multiple-choice* questions. Approximately half of the questions were derived from actual error examples found in the student writing database, and the other half of the questions were created based on the 12 error types. For the online dictation questions, each student had to listen to the audio-recorded word, phrase, or sentence and then either type it onto the computer screen or hand-write it on a piece of paper. Each dictation question was read two times, first at a slow speed and then at a normal speed. By clicking the answer button, the learner could check the correct answer immediately.

The online multiple-choice questions were created to test the learner’s ability to recognise the correct spelling of the words. The multiple-choice items included common misspellings so as to help learners distinguish the correct form from incorrect ones. When the learner clicks one of the answers, immediate feedback appears, stating whether the selected answer is right or wrong. When a wrong answer is selected, a message asking for another try appears. The online exercises were an extension of in-class dictation activities, serving to reinforce and enhance what was learned and practised in the classroom (Figure 1).

As for the in-class dictation activities, students participated in 10 short, weekly dictation tests and in 1 final dictation test. These tests were part of their course requirements and accounted for 20% of their final grade. Each dictation test was composed of 50–70 words.

**Procedure**

At the beginning of the semester, participants took an in-class dictation test as their pre-test. The test contained 10 question items related to the 12 error categories. Question items involved lexical phrases or sentences that were randomly selected from the error database, but were arranged to include at least two words from each error category.

The class met five times a week for 50 min over a 14-week semester period. The primary goal of this class (*Korean 133: Heritage Intermediate Course*) was to help Korean heritage learners to improve their grammatical competence, literacy skills, and discussion abilities in various topics and issues related to contemporary Korea. In addition, the course aimed to prepare the students adequately for the next course in the sequence (*Korean 150: Heritage Advanced Course*).

Students were directed to complete online dictation exercises after receiving explicit in-class instruction on common orthographic errors. Each week, one or two types of common spelling errors were discussed in class. The instruction focused on explaining error patterns (e.g. phonological or morphological explanation for the source of errors) accompanied by a list of examples. Then students were asked to complete the corresponding online exercise questions at home. The dictation exercises for each error category were expected to take about 2–3 h to complete. Since each week dealt with one or two error categories, students had a full week to complete the corresponding online exercises. In order to ensure students’ self-study of the online dictation exercises, a short, in-class dictation test was given every week. The items in the weekly dictation tests were either identical or very similar to the exercise questions provided on the dictation website.

In addition to these weekly dictation tests, students participated in dictation activities in class, which were administered by two instructors: one of the researchers and a teaching assistant.
assistant. Class dictations were divided into two parts: (1) dictation questions related to the error category that was extensively discussed that week, and (2) general dictation exercises.

Dictations were conducted mainly in two formats: vocabulary/phrase dictation and text dictation. Vocabulary/phrase dictation involved transcribing individual words or phrases in isolation. The instructor read each vocabulary/phrase item three times at a normal speed, giving sufficient time for the student to write it down. Text dictation was administered by asking the students to transcribe the passage that was read either by the instructor or by audio recordings. The length of these passages ranged from three to five sentences. At first, each sentence was read once with a pause between sentences. And then the entire passage was read three more times without any pauses between sentences. After transcribing a passage, students were asked to review their writing to check for accuracy. Dictation items (both vocabulary/phrase items and text items) were drawn from the course materials, including a course reading packet and supplementary handouts.

After completing the dictation activities, students’ dictation sheets were collected. The instructor then checked each student’s dictation and provided indirect feedback for

Figure 1. Excerpts from the online self-study dictation exercises.
inaccurate spellings by circling the errors. Dictation sheets were returned to the students the next class session. Students were then asked to resubmit the dictation sheet within a week after correcting the indicated errors. They were also required to compile all of their dictation work into a portfolio as documentation of their individual growth and development in spelling proficiency. Student dictation portfolios were collected and examined two times, in the middle and at the end of the semester. Each portfolio was graded based on the following: (a) compilation completeness, and (b) self-correction accuracy. The spelling portfolio served as a useful source for both the instructor and the student in identifying each learner’s error patterns and spelling habits. By reviewing the dictation portfolios, learners were able to reflect upon their own strengths and weaknesses in orthography and the teacher was able to provide more individualised comments and feedback.

At the end of the semester, a final dictation test was given to the participants as the post-test. This test followed the same format as the pre-test but contained more question items (i.e. 30 items). Questions were derived from the 12 error categories that students had learned and practised through in-class and online dictation exercises. The length of the items varied from a lexical phrase to a sentence. The pre-test and post-test questions were not the same. That is, none of the pre-test questions was repeated in the post-test. The post-test was counted as part of the final examination for the course. On the last day of instruction, students were also asked to provide narrative feedback on online and in-class dictation activities. The results of this feedback exercise are also reported below.

Data analysis
Pre-test and post-test data were evaluated by two Korean language teachers using syllable scoring: one point was given for each correctly spelled syllable. Incorrect spacing and punctuation were not counted as errors. Examples of syllable scoring are set out in Table 1.

The number of correctly produced syllables out of the total number of syllables read to the students was then converted to the 100-point scale.

Results and discussion
Each participant’s scores for the pre-test and the post-test are displayed in Table 2. Descriptive statistics are presented in Table 3. A paired-samples t-test was conducted to examine how much improvement the participants had made from the pre-test to the post-test, and the results of this test are set out in Table 4.

As Table 2 shows, the participants’ pre-test spelling scores were generally low, ranging from 10 to 42, with a mean score of 22.6. A few examples of sentences produced in the pre-test are provided below.

Table 1. Examples of syllable scoring.

<table>
<thead>
<tr>
<th>Target words/sentence</th>
<th>Produced form</th>
<th>Correct form</th>
<th>Number of incorrect syllables</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-kkay iss-se-yo</td>
<td>pakk-ey iss-e-yo</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>yel-lak tu-li-keyss-sup-ni-ta</td>
<td>yen-lak tu-li-keyss-sup-ni-ta</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Pre-test and post-test spelling scores.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>97</td>
</tr>
<tr>
<td>2</td>
<td>36</td>
<td>99</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>95</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>93</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>91</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>95</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>96</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
<td>92</td>
</tr>
<tr>
<td>9</td>
<td>21</td>
<td>92</td>
</tr>
<tr>
<td>10</td>
<td>42</td>
<td>96</td>
</tr>
<tr>
<td>11</td>
<td>29</td>
<td>93</td>
</tr>
<tr>
<td>12</td>
<td>21</td>
<td>93</td>
</tr>
<tr>
<td>13</td>
<td>15</td>
<td>92</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>94</td>
</tr>
<tr>
<td>15</td>
<td>21</td>
<td>96</td>
</tr>
<tr>
<td>16</td>
<td>19</td>
<td>91</td>
</tr>
<tr>
<td>17</td>
<td>16</td>
<td>88</td>
</tr>
<tr>
<td>18</td>
<td>25</td>
<td>94</td>
</tr>
</tbody>
</table>

Table 3. Descriptive statistics for the difference between the pre-test and the post-test spelling scores.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>22.61</td>
<td>93.72</td>
</tr>
<tr>
<td>Standard error</td>
<td>1.90</td>
<td>0.61</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>8.05</td>
<td>2.61</td>
</tr>
<tr>
<td>Range</td>
<td>32 (10–42)</td>
<td>11 (88–99)</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.74</td>
<td>0.35</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.97</td>
<td>−0.08</td>
</tr>
</tbody>
</table>

Examples of spelling errors from the pre-test

Incorrect syllables are marked in bold. Correct sentences are provided in parentheses.

   (Kye-wul-ey a-mwu-li chwu-we-to pakk-ey-se ttwip-ni-ta.)
   ‘In the winter, no matter how cold it is, I jog/run outside.’

   (Mwun-cey-ka pok-cap-hay-se ppal-li kkuth-nay-ki-ka e-lyep-keyss-sup-ni-ta.)
   ‘Since the problem is complicated, it will be difficult to finish it quickly.’

3. Hak-kko sik-ttang-ey em-sik-ek-ey-yo?
   (Hak-kyo sik-tang um-sik-i e-ttay-yo?)
   ‘How is the food in the school cafeteria?’

4. Cha-ka men-ni mek-kye-so...
   (Cha-ka manh-i mak-hye-se...) ‘Since the traffic was heavy...’

   (Che-nun hyeng-cey-manh-ci a-nh-a-yo.)
   ‘I don’t have many siblings.’
The above examples show some of the causes of the most frequently committed spelling errors by Korean heritage learners, including confusion between vowels of similar sounds, colloquial conjugations, and violations of morphophonemic spelling rules.

As displayed in the right-hand-side column of Table 2 and summarised in Table 3, there is much variation in participants’ pre-test scores (SD = 8.05), whereas the distribution of post-test scores shows relatively little variation (SD = 2.61), indicating that students performed more homogeneously in the post-test. Pre-test and post-test scores showed a weak non-significant positive linear correlation ($r = 0.37$, $p = 0.13$), implying that although there was a slight tendency for students with higher pre-test scores to achieve higher post-test scores, this correlation was not strong. An example of substantial change is participant 14, who scored lowest (10) in the pre-test but relatively high in the post-test (94).

The means of the pre-test (22.61) and post-test (93.7) showed a marked increase in spelling achievement of 71.1 after dictation exercises. The results of the paired-samples (dependent) $t$-test indicated that the post-test scores of the students significantly exceeded their pre-test scores ($t = 24.0.3209$, df = 17, $p < 0.0001$). The summary of pre-test/post-test comparisons confirms the merits of dictation as a teaching and learning device in remediating heritage learners’ spelling weaknesses. It also suggests that teachers of HLLs should be made more aware that the effect of orthography instruction via dictation can be maximised when students’ needs and weaknesses are determined from empirical data (the learner database of common orthographic errors).

**Learners’ perceptions of online and in-class activities**

The results of an open-ended questionnaire regarding the online and in-class dictation activities revealed students’ positive attitudes towards them. The narrative feedback can be summarised under three headings:

1. *Dictation as a learning tool*: students perceived dictation as a valid activity for spelling practice which helps to consolidate sound-form mapping; students considered the online exercises to be a useful self-study tool.

2. *Learning content*: presentation and instruction related to the general patterns of spelling errors were perceived to be effective and efficient.

3. *A sense of achievement*: students found it rewarding to work on remediating their weaknesses and felt more confident with spelling.
Examples of students’ feedback are provided below:

- It is very helpful because I feel that as heritage speakers, our weakness area is spelling. Even when it came to simple words that I thought I knew, I quickly realised how bad my spelling was. We learned spelling by category – this was really helpful.
- Dictation practice really helped in understanding the basic mechanics of Korean spelling. It helped me develop my ‘guessing’ skills: that is, I now have a better chance of spelling unknown words correctly because I have learned the general patterns of the Korean language.
- It is very helpful simply because it refines our grammar and spelling at the same time. Since we implicitly know the basic rules of grammar, dictation expands on that knowledge. Spelling can be practiced effectively with dictation.
- Dictation is very rewarding. Gaining confidence in writing, my weakest area in Korean, is such a great thing!
- Dictation practice is very important in improving my spelling because it is the best way to check that I am spelling words correctly.
- Dictation practice is very helpful. It’s very difficult to practice spelling by yourself since you have to look at the word before you spell it, defeating the purpose.
- Dictation was nice for me because it provided a quick connection to the words I knew in English but couldn’t manifest in Korean.
- I think the audio exercises were great! They were especially helpful online, since I only had to click on the link.
- The audio program was very effective in practicing spelling by myself.
- Hearing my teacher’s voice online makes me feel I am still in class with her.

A couple of negative feedbacks were also received. One student complained about workload, saying that the online assignment in continuation of classroom activities was burdensome. Another student found performing online dictation rather cumbersome because he had to navigate, click, listen, type, and check for answers, whereas classroom dictation was given and checked by the teacher. Feedbacks from the two instructors involved in this study were both positive. They reported that establishing error categories made it easy to provide more focused and systematic instruction. This, they added, increased HLLs’ sensitivity to written forms and contributed to the emergence of more balance between HLLs’ aural and written skills.

Conclusion

The aim of this study was to identify common orthographic errors made by Korean heritage learners and to explore the effectiveness of online self-study and in-class dictation exercises in learning orthographic accuracy. The findings clearly demonstrate that systematic dictation activities can be beneficial for heritage learners with low spelling competence. Although dictation has traditionally been regarded as a teacher-centred method, this study suggests that it can be exploited as a learner-centred practice. The online dictation programme allows learners to repeat each module as many times as needed at their own pace. The integrated combination of classroom activities and web-based exercises can reinforce learning and gives learners increased control of their own learning. Students’ feedback suggests that they found it particularly effective when the instruction focused on general patterns of Korean orthography and misspellings, rather than simply focusing on the list of commonly misspelled words. Another achievement of the study is that the error types identified can be used or adapted in future research related to Korean HLLs and can inform pedagogical choices that teachers of Korean make in enhancing heritage learners’ orthographic proficiency.
The limitations of the present research should also be noted. It involved a rather small number of heritage learners at the intermediate level. Some of the results, therefore, may not be applicable to other heritage learner groups. In addition, participants were involved in course activities other than dictation, such as reading and composition. It is possible, therefore, that other factors may have also contributed to improving students’ orthographic skills. In the pre-test and post-test, students’ orthographic proficiency was measured using only dictation tasks. The results of these tests do not necessarily mean that students will demonstrate the same level of orthographic accuracy in other kinds of writing tasks. In other words, whether or not students’ improvement in orthographic skills is transferrable to other forms of writing tasks remains unanswered.

Another possible limitation of this research relates to the impact of extensive form-focused orthographic instruction viewed from a cost–benefit point of view. The investment of time and effort in improving orthographic proficiency may be at the expense of instructional activities focused on other aspects of interlanguage development. Although this investigation involved heritage learners who happened to have a large gap between their oral and written skills, and who strongly desired to enhance their orthographic proficiency, the same circumstance may not apply to heritage learners with other profiles or in other instructional contexts. L2 teachers, therefore, should consider the relative costs and gains involved in spelling practice and make decisions appropriate for individual pedagogical settings.

We also believe that the common spelling errors identified in this study are shared to some extent by non-heritage learners of Korean. A comparative analysis of orthographic errors made by heritage and non-heritage learners is suggested, therefore, as a promising area for future investigation.

Drawing on previous studies of HLLs and the error types discussed in this study, we believe that Korean heritage learners’ spelling errors are closely related to their over-reliance on aural cues, and thus they are in need of targeted training to relate what they hear to graphic form. Dictation can serve as a useful vehicle through which heritage learners can develop effective linkages between their separate skills of listening and writing. When it is purposefully used, dictation can facilitate learners’ cognitive efforts to visualise words in their minds and thereby increase their awareness of sound-form relationships.

Notes
1. The tendency to write words the way they sound, however, is not a characteristic that is unique to heritage learners only. While heritage learners make many spelling errors of this kind, it should be noted that such errors are committed by non-heritage learners and native speakers of Korean also.
2. In this context, ‘standard’ Korean refers to linguistic forms that follow the rules of standard Korean grammar and, therefore, are acceptable for use in formal writing.
3. The Yale system of Romanisation is used in this study.
4. An earlier version of Study 1 and Study 2 was presented at the 18th International Conference on Korean Language Education, Seoul, Korea, in 2008.
5. Error categories (2), (3), and (4) can be grouped into one broader category – consonant assimilation.
6. Some or all of the 12 types of common spelling errors may be shared by non-heritage learners. To what extent they are unique to heritage learners or common for Korean writing, in general, is a topic that needs further investigation, but it is beyond the scope of the current study.
7. For more detailed information on Korean orthographic rules, refer to Lee and Ramsey (2000) and Sohn (1999).
8. Each multiple-choice question with one correct form and one or two commonly misspelled form(s) was intended to raise consciousness of problematic orthographic features and to help learners monitor their common misspellings. In order to avoid or minimise negative reinforce-ment of incorrect forms, immediate feedback was set to automatically appear when the learner clicked any answer choice, verifying whether the selected answer was right or wrong.
References


