



Theses and Dissertations

2020-06-16

The effect of dynamic written corrective feedback for learners of Korean

Subin Oh
Brigham Young University

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Arts and Humanities Commons](#)

BYU ScholarsArchive Citation

Oh, Subin, "The effect of dynamic written corrective feedback for learners of Korean" (2020). *Theses and Dissertations*. 9099.

<https://scholarsarchive.byu.edu/etd/9099>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.

The Effect of Dynamic Written Corrective Feedback for Learners of Korean

Subin Oh

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Arts

Teresa R. Bell, Chair
Norman W. Evans
James Hartshorn
Julie A. Damron

Center for Language Studies
Brigham Young University

Copyright © 2020 Subin Oh

All Rights Reserved

ABSTRACT

The Effect of Dynamic Written Corrective Feedback for Learners of Korean

Subin Oh

Center for Language Studies, BYU

Master of Arts

This study investigates the effectiveness of dynamic written corrective feedback (DWCF) for intermediate learners of Korean as a foreign language (KFL) compared to traditional types of written corrective feedback. DWCF is an innovative method of providing written corrective feedback on students' writing that has primarily been used in English as a second language (ESL) settings. It aims to improve learners' linguistic accuracy and requires multilayered interaction between teachers and students. Although DWCF has been effectively used to increase linguistic accuracy in various ESL settings, it has not yet been widely applied to other language learning settings. This study demonstrates the extent to which DWCF increases the linguistic accuracy of intermediate KFL learners and determines DWCF's impact on fluency and complexity.

The treatment group ($n = 9$) was managed with DWCF and the control group ($n = 10$) wrote six essays over a 12-week period. The pre- and post-test results were analyzed to determine differences in linguistic accuracy, fluency, and complexity between the two groups. A mixed-model repeated measures ANOVA revealed that the treatment group's accuracy significantly increased compared to the control group, whereas there was no significant difference in fluency or complexity for either group. Limitations and suggestions for future research are discussed in the conclusion.

Keyword: written corrective feedback, Korean writing, teaching Korean, Korean as a foreign language, dynamic written corrective feedback

TABLE OF CONTENTS

TITLE PAGE.....	i
ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	v
LIST OF FIGURES	vi
CHAPTER 1: Introduction	1
Research Background	1
CHAPTER 2: Literature Review	7
Historical Evidence of WCF	7
Focused vs. Comprehensive Written Corrective Feedback	9
Direct vs. Indirect Written Corrective Feedback	10
Written Corrective Feedback for Korean as a Foreign Language	13
Dynamic Written Corrective Feedback	14
CHAPTER 3: Methodology.....	18
Research Questions.....	18
Participants.....	18
Students.....	18
Teachers.....	19
Raters	20
Procedures.....	20

Data Analysis	22
Accuracy	23
Fluency.....	24
Complexity.....	25
CHAPTER 4: Findings and Results.....	26
Reliability Estimates	26
Mixed-Model Repeated Measures ANOVA Results	26
Accuracy	27
Fluency.....	30
Complexity.....	30
CHAPTER 5: Discussion and Conclusion.....	31
Discussion.....	31
Limitations	32
Suggestions for Future Research	34
Conclusion	35
REFERENCES	36
APPENDIX A: Topics for The Treatment Group	44
APPENDIX B: Korean Error Correction Codes.....	46
APPENDIX C: Example of Timeline	47

LIST OF TABLES

Table 1: Pre- and Post-Test Topics	20
Table 2: Writing Statistics for Treatment and Control Groups.....	22
Table 3: Instruments Used to Measure Accuracy, Fluency, and Complexity	22
Table 4: Descriptive Statistics for Error-free Clauses per Total Number of Clauses.....	27
Table 5: Descriptive Statistics for Error-free Syllables per Total Number of Syllables	28
Table 6: Descriptive Statistics for Number of Errors per Sentence.....	28
Table 7: Writing and Revision Times for Treatment and Control Groups	33

LIST OF FIGURES

Figure 1: Descriptive Statistics for Error-free Clauses per Total Number of Clauses.....	29
Figure 2: Descriptive Statistics for Error-free Syllables per Total Number of Syllables	29
Figure 3: Descriptive Statistics for Number of Errors per Sentence	29

CHAPTER 1

Introduction

Research Background

Although learners of Korean as a foreign language (KFL) insist that writing is more difficult than speaking, reading, and listening and that they need an effective way to improve their writing skills, students are often unable to successfully learn writing skills in the classroom (Jeon, 2004; Yoon, 2013). To solve this problem, researchers have attempted to identify why KFL learners demonstrate low motivation and ability in the area of writing in Korean (e.g., Jang et al., 2014; Jin, 2009; Jin, 2015; Kang, 2009).

First, KFL learners' motivations for learning Korean are generally unrelated to writing. According to Jee (2015) and Wang (2016), the number of KFL courses has rapidly grown after the 1990s—both in general and in the United States—for a variety of reasons. The increasing number of foreigners marrying Koreans has largely been responsible for this trend. In addition, since the 1990s, there has been a dramatic rise in the number of people who want to learn Korean due to the influence of “Hallyu,” or the “Korean Wave”: the newfound popularity of Korean dramas, movies, songs, and lifestyle influences, such as fashion (Shon & Jeon, 2011; Wang, 2016). In short, KFL learners begin learning and continue to learn Korean because of its connection to their families and friends or Korean pop culture. Because motivations to learn Korean are rarely related to writing, it can be challenging for teachers to spend time teaching KFL students to write in Korean during class time.

Second, learning to write Korean is a difficult and complex process that requires disciplined effort and training, even for native speakers. When writing in a foreign language, learners are required not only to use different kinds of grammar, syntax, and vocabulary than when speaking but also to engage in a different thought process and develop a deeper

understanding of the target language and culture. A high-level ability to communicate that goes beyond the simple expression of meaning is necessary for KFL learners to learn to write in Korean (Kang, 2009; Yoon, 2013). As a result, many KFL learners are not interested in becoming proficient in writing (Jeong, 2012; J. S. Park, 2018). Furthermore, unlike other language skills, writing involves not only fluency and complexity but also accuracy, combined with a low-error tolerance.

Writing has historically not been effectively taught in KFL classrooms even though there is a great deal of research demonstrating that KFL learners feel that writing is the most difficult part of learning Korean and that there is a need for satisfactory methods for writing instruction (Jin, 2009; Yoon, 2013). There are many reasons why writing is not successfully taught in KFL classes. First, the ratio of writing education to other forms of education in Korean classes is relatively low, as the current trend is to emphasize oral communication in FL classrooms (Jin, 2015). Writing skills are used less frequently for communication in everyday life compared to speaking, listening, and reading (Jeong, 2012). Writing is also considered a secondary skill, meaning that it is a supportive communication tool for most novice and intermediate Korean learners, apart from those with educational purpose learners.

Second, KFL teachers tend to focus on students' areas of apparent achievement, i.e., those areas in which learners' achievements and satisfaction are visible. However, improvement in writing is often not actively or satisfactorily addressed compared to the time that such improvement requires (Jin, 2015). Language classes should be organized in a way that maximizes the efficiency of learning within a limited timeframe. Korean teachers thus need to cover writing as well as other language functions—including grammar, vocabulary, pronunciation, and culture—in a holistic manner, which can result in writing being easily undervalued.

Finally, although many teachers of Korean would like to teach writing in their classes, they are often not trained to do so (Jin, 2009; Jin, 2015; Yoon, 2013). Writing is a difficult language skill, and even native speakers experience challenges when seeking to improve their writing. Further, since Silva's (1993) research, writing in a FL has been recognized as more difficult than writing in a first language (L1). Writing in a FL differs from writing in an L1 in various ways, including writing strategies, learning strategies, structural functions, interaction with readers, use of materials, fluency, and accuracy (Byrne, 1979; Williams & Cui, 2005).

This is especially true for linguistic accuracy; it is difficult both to transfer L1 linguistic accuracy to FL writing and to help students improve in this important area. As linguistic accuracy is the most obvious indicator of writing ability, it continues to be of concern to researchers and educators. However, teaching and directing FL learners to improve linguistic accuracy is demanding, even for well-educated instructors who are proficient in Korean because instructors do not follow good models of teaching writing skills to appropriately guide their students (Jin, 2009) or use effective teaching strategies, even when such strategies have been recommended by previous research. One of the limitations of the previous research studies is that they are restricted to the laboratory setting, and realistic pedagogical implications are not made.

The two problems presented above—the low ratio of writing education to other types of education and the lack of writing class time—cannot be readily solved, although it is clear that writing should be effectively taught in language classrooms. Communicative language teaching is the mainstream of foreign language teaching methods established by logical flow, and the need to maximize time efficiency in language classrooms is an ongoing problem. Therefore, researchers should focus on how to train teachers and how to introduce efficient teaching methodologies that can be implemented immediately without the need for complicated instructor training.

Teaching strategies that can be promptly used in classrooms by any language teachers without long-term education are more realistic to be utilized in Korean language classrooms than teacher training because such training requires a great deal of time and leads to slow improvement. Most KFL teachers are hired and often immediately begin teaching after graduating from a community college, university, or graduate school with a major in Korean language education, without receiving adequate classroom experience (Jin, 2009). According to Jin (2009), Korean language teachers are educated about writing instruction in only a small portion of their degree programs, and no training programs other than short workshops are offered for them to improve their classroom skills. Therefore, the introduction of a new and improved method for teaching writing is necessary to replace inefficient traditional writing classes.

Written corrective feedback (WCF) could be a powerful tool for KFL learners for several reasons. First, it is an excellent way to improve students' linguistic accuracy. Following Truscott (1996), many researchers have asked whether WCF is, in fact, helpful in assisting FL learners in improving their linguistic accuracy (e.g., Ferris, 1999; Semke, 1984). However, research since Truscott (1996) has demonstrated that WCF helps FL learners increase their accuracy, and recent studies have attempted to identify what kind of WCF is most effective and powerful for students (e.g., Ashwell, 2000; Ferris, 2004; Hartshorn & Evans, 2015; M. J. Kim, 2008; Kurzer, 2018; Van Beningen et al., 2008).

Second, WCF is a good way to manage class time. Writing, feedback, and revision are all individual procedures which do not have to occur during the class period. As such, when WCF is used, both instructors and learners can save limited class time and practice other language skills. Lastly, WCF can be optimized for KFL learners, who have different writing abilities and make different errors, in comparison to writing classes or other types of

feedback. Each learner should be provided individual feedback on their imperfect writings to help them become aware of frequent errors and improve their accuracy.

While many KFL researchers have studied what kind of feedback is objectively most effective for learners, the treatments used in research cannot always be implemented effectively in KFL classrooms, largely because teachers and students still complain about KFL writing classes after such methods are implemented in studies (Jin, 2009; Yoon, 2013). For example, teachers and students have complained that they cannot realize the effectiveness of education after using various types of writing classes and that most students do not understand what the purpose is of writing activities (Yoon, 2013).

Therefore, this thesis proposes a practical and clear method that can be immediately used in classrooms, namely dynamic WCF (DWCF), which was suggested by Evans et al. (2010). In that study, researchers required instructors to give feedback on multifaceted elements of a student's writing, rather than one grammar point at a time (Hartshorn et al., 2010). Although studies by Bitchener (2008), Bitchener and Knoch (2010), and Sheen (2007) suggest that it is more effective to focus on only one grammatical element at a time in student writing, such an approach differs greatly from learners' real-world experiences of using the target language. Therefore, FL students should learn how to write multi-dimensionally.

The DWCF approach can shorten students' writing time so that teachers and students are able to digest feedback more easily. With this strategy, students spend 10 minutes writing a paragraph during each class period, receive coded feedback on it during the next class, and revise it before turning it in during the following class, at which point they are provided with more feedback on their revised draft and are asked to revise it again. A series of revisions follows until they produce an error-free draft, with the entire procedure completed within a week. Students are also required to record their errors on tally sheets to track and remain cognizant of the type of errors they make and their error rate. Studies of this technique have

found significant improvement in linguistic accuracy for the treatment group (Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010; Hartshorn & Evans, 2012; Hartshorn & Evans, 2015; Kurzer, 2018; Marzban & Arabahmadi, 2013).

DWCF aims to be: (a) manageable, as it limits students' writing to a paragraph produced in 10 minutes; (b) meaningful, as students can receive holistic feedback and note the errors they make; and (c) timely and constant, as students finish their first draft in 10 minutes, receive feedback the next day, and repeat the procedure at least four days in a given week. This type of feedback is not possible when teachers provide feedback focused on only one or two elements of a student's writing or when feedback is only given for long essays or papers once or twice over the course of a semester.

While DWCF has been shown to be effective in improving FL writing ability, most studies have occurred in ESL settings. To adapt DWCF for KFL classrooms, new research is required to determine when the methodology is appropriate for other language settings. In particular, when research on DWCF experiments in KFL classrooms is designed, some changes will be necessary to adapt it for the Korean language. The research should include an error code and feedback system for KFL instructors that considers the unique characteristics of the language, and proficiency levels should be carefully chosen, keeping in mind the significant language differences between English and Korean.

CHAPTER 2

Literature Review

As stated in the previous chapter, this thesis aims to demonstrate the effect of DWCF for learners of KFL. This chapter will point to various literature to examine the research gap. It begins by identifying a controversial issue about the effectiveness of WCF. Then, various ways to provide WCF are compared to determine better methods. An overview of research related to WCF in Korean follows. Lastly, previous research related to DWCF is discussed.

Historical Evidence of WCF

By 1984, WCF was already receiving a lot of attention. In Semke's (1984) landmark study, she demonstrated that WCF was not helpful for students. Semke divided 141 university students learning German into four treatment groups, for whom four different methods of error feedback were provided: (1) writing comments and questions; (2) marking errors and providing the correct forms; (3) integrating positive comments and the correct forms; and (4) providing feedback using metalinguistic error codes. As a result, the researcher concluded that none of the methods of error correction that were used in the research improved the second language learners' linguistic accuracy, fluency, or overall language competency.

In 1996, Truscott conducted a study and claimed that WCF is not only ineffective but also possibly harmful to students' writing, sparking a fierce debate about the effectiveness of the technique. After Truscott's claim that WCF should be abandoned based on theoretical and practical reasons, several studies offered further evidence to support the argument that WCF is not beneficial (Polio et al., 1998; Truscott & Hsu, 2008).

Polio et al. (1998) also evaluated the efficacy of WCF over the course of a semester by dividing 64 ESL students into treatment and control groups and asking them to complete an assignment in which they wrote for 30 minutes and then revised their writing for 60

minutes. The treatment group received additional grammar review and corrective feedback, while the control group did not receive any type of feedback. According to the pre- and post-test results, the scores of the treatment group were not significantly higher than the control.

Truscott and Hsu (2008) investigated the efficacy of WCF in the form of indirect feedback by asking 47 English as a foreign language (EFL) learners to write three narrative stories after watching provided narrative pictures. The researchers underlined the errors found in the papers of half of the 47 participants while the other half received no feedback; both groups then revised their writing. One week after the first treatment, the treatment group had significantly higher scores than the control group. However, on a subsequent test, the scores of the two groups were almost identical, indicating that the improvement on the first test was not due to the error corrective feedback. The results of these studies support the idea that error corrective feedback does not help foreign language learners.

In contrast to these results, many other researchers have asserted that language teachers should provide WCF to their students because students cannot recognize their errors without the assistance of teachers or others who have greater proficiency in the target language (Hendrickson, 1978). Research on this topic has demonstrated that students do, in fact, regularly request feedback on their writing (Ferris, 1995). Furthermore, far more studies have demonstrated WCF's success in improving linguistic accuracy in a second language (L2; e.g., Ashwell, 2000; Chandler, 2003; Ferris, 1995; Ferris, 2004; Ferris & Roberts, 2001; Van Beningen et al., 2008) than have demonstrated its ineffectiveness.

In addition to the above research supporting the effectiveness of WCF, numerous recently published studies have suggested better ways to provide WCF (e.g., Kurzer, 2018; Saeb, 2014; Westmacott, 2017; Xu & Bitchener, 2019). These recent studies, noting that WCF has already been shown effective for FL students, have sought to determine which

WCF methods are most efficient. The remainder of this chapter introduces the literature concerning what type of writing feedback is most helpful for L2 learners.

Focused vs. Comprehensive Written Corrective Feedback

Focused versus comprehensive WCF is a point of dispute in the literature regarding effective ways of providing corrective feedback (e.g., Farrokhi & Sattarpour, 2012; Sheen et al., 2009; Sheppard, 1992). Focused feedback confines feedback to limited error types and ignores other errors. However, comprehensive feedback focuses on all kinds of errors (Saeb, 2014).

The use of focused feedback is supported by several studies. Sheppard (1992) found that feedback focusing on only a few items was more efficient for the development of L2 learners' grammatical accuracy than holistic feedback. Truscott (2007) stated that certain discrete items, such as spelling errors, could be improved with focused feedback but insisted that WCF could not amend syntactic or morphological problems. Farrokhi and Sattarpour (2012) also determined the effectiveness of focused feedback in EFL learning, looking specifically at the English articles "a" and "the." They divided participants into one control group and two experimental groups and gave one experimental group direct comprehensive feedback and the other experimental group direct and focused feedback, which was only for errors on the English articles, while the control group did not receive any kind of feedback. The researchers found that the group that received direct focused feedback outperformed the other two groups.

Sheen et al. (2009) compared focused and comprehensive WCF by examining several groups who engaged in additional writing practice and a control group who did not. Those who received focused WCF had the highest accuracy, followed by the writing practice alone group, the comprehensive feedback group, and the control group, respectively. However, Sheen et al. (2009) noted that the focused group received more feedback on target grammar

items than the comprehensive group, which may have affected the results (Xu & Bitchener, 2019).

On the other hand, some studies have indicated that it is difficult to conclude whether focused or comprehensive feedback is more beneficial. Saeb (2014) noted the inconsistency of study results regarding focused versus comprehensive feedback, based on an analysis of the findings of multiple studies that indicated completely different and thus unpredictable results. In contrast, Ellis et al. (2008) insisted that focused and comprehensive feedback were equally beneficial after analyzing pre- and post-test results for focused and comprehensive feedback groups. The focused feedback group received feedback only on indefinite and definite English articles, while the comprehensive feedback groups received feedback on all errors. Both groups outperformed the control, who did not receive any kind of feedback.

Meanwhile, Evans et al. (2010) argued that the findings claiming that focused feedback is more beneficial “may be too focused to be practical” (p. 386). The authors asserted that FL teachers and students must address many types of errors at the same time, rather than concentrating only on determination errors or missing articles, as FL learners must take into account many complex factors when writing for specific purposes in the real world.

Direct vs. Indirect Written Corrective Feedback

Direct feedback is a method in which a feedback provider writes the correct form when making note of errors, while indirect feedback points out students’ errors without offering specific corrections and/or explanations (Bitchener & Knoch, 2009). Unfortunately, although researchers have been investigating this question for the past 30 years, there is no consensus on which method is most effective.

Some authors have concluded that direct feedback is beneficial, including Ellis et al. (2008), who aimed to investigate the impact of direct feedback on students’ understanding of English articles. In that study, 49 EFL students were given a narrative writing task, a pre- and

post-test, and a delayed post-test. The researchers divided students into two groups: a focused group, who received feedback only on article errors, and a comprehensive group, who received feedback on every error. The results indicated that both groups showed significant improvement in their English article use but found no evidence that direct feedback was more beneficial than indirect feedback, since there was no control group receiving indirect feedback. Despite the lack of a control group, the results indicated that both the focused and comprehensive groups showed significant improvement in their English article use.

Chandler (2003) found that indirect error correction was as effective as direct correction in reducing errors in students' assignments and was more beneficial for addressing errors in the long term. He also found that, according to survey results, students preferred direct feedback because it was simpler and allowed them to see the appropriate correction faster. However, students admitted that they felt they learned more when they received underlined feedback and made self-corrections. Another researcher argued that there is no significant difference between direct and indirect feedback and that results depend on other variables: Semke (1984) refuted the importance of both the direct and indirect method, placing greater emphasis on the sheer amount of writing practice in improving students' L2 writing skills.

Some studies have found that indirect feedback has a more positive impact on students' L2 writing accuracy than direct feedback. Baleghizadeh and Dadashi (2011) recruited 44 male EFL students in Iran and divided them into two groups: one who received direct feedback and another who received indirect feedback. The research revealed that indirect feedback was more effective than direct feedback in addressing frequent spelling errors.

In a longitudinal case study of six female Chilean EFL students, Westmacott (2017) reported that most participants found indirect feedback to be more helpful than direct

feedback in improving their grammatical knowledge and also found that it encouraged them to practice autonomously. Most participants also answered that indirect feedback was more beneficial in teaching them to revise their grammatical errors.

Studies have also investigated which specific methods within direct or indirect feedback are the most effective. In a study of ESL students in New Zealand, Bitchener and Knoch (2009) interpreted the different effects that three types of direct WCF had on students' accuracy. One group received direct error correction and metalinguistic explanations in both spoken and written language; another group received direct correction and written metalinguistic explanation; the final group received only direct correction. The researchers reported no differences among the three treatments.

Ferris and Roberts (2001) investigated which kinds of indirect feedback are better for improving FL learners' writing. When comparing underlined and coded feedback, the researchers determined that explicitness made no difference in helping students edit their own writing. However, regardless of the type of indirect feedback, both groups were better at self-editing tasks than the control group. Robb et al. (1986) investigated four groups of EFL students who received either direct feedback, coded feedback, underlined feedback, or marginal feedback, with the total number of errors written in the margins. They argued that there was no evidence that direct feedback improved students' writing, despite the greater amount of time required to revise all errors.

Chandler (2003) demonstrated that a multiple-step feedback revision procedure was beneficial in improving FL writing. In this study, the control group received only indirect feedback, and the treatment group received different kinds of feedback on two occasions. The feedback providers gave indirect feedback on the first drafts of participants in the treatment group. Treatment group participants then revised their drafts and received direct feedback on

their second drafts. The writings of treatment group participants showed significant improvement compared to the control group.

From these studies, we learn that there is no clear consensus on whether direct or indirect feedback is more effective in improving FL learners' writing. However, Chandler (2003) implied that a multiple-step feedback-revision procedure is better than feedback provided only once. Therefore, feedback for FL learners should be carefully chosen based on the language being taught, the classroom setting, and the teaching approach.

Written Corrective Feedback for Korean as a Foreign Language

There have been a variety of studies about WCF in KFL. Two meta-analyses have explored research trends related to WCF for learners of the Korean language (Baik, 2016; Jang et al., 2014). Several studies have compared written feedback and conference feedback (i.e., feedback to improve learners' writing by consulting with their teachers or feedback providers) (Dong & Kim, 2014; Lim et al., 2014; Y. Park, 2013; Shin, 2010), but there is no clear consensus regarding which is most effective. Dong and Kim (2014) and Y. Park (2013) reported that conference feedback was more helpful, while Lim et al. (2014) and Shin (2010) argued that WCF was more beneficial.

Traditionally, language teachers and learners in Korea have believed that teachers should provide feedback (Baik, 2016). Recently, however, some researchers have investigated the effectiveness of peer review or self-editing compared to teacher feedback. According to J. Kim (2008) and Na (2008), teacher feedback is more effective for KFL learners than peer review or self-editing.

Meanwhile, several studies have attempted to demonstrate whether direct or indirect feedback is more beneficial for KFL students. Jin and Seo (2018), Kim (2015), and J. Park (2007) claimed that direct feedback is more effective for improving grammatical accuracy. J. Kim (2008) and Lee and Kim (2013) found that providing students with direct feedback

worked better in the short term and overall, even though the group that received indirect feedback gradually improved as time passed. Y. Park (2009) discovered that when novice KFL students produced new writing on class-related topics, direct feedback was more helpful. However, when they wrote on different topics, the indirect feedback groups outperformed the direct feedback groups. Finally, Song (2014) demonstrated that indirect feedback was more beneficial than direct feedback for KFL learners.

Dynamic Written Corrective Feedback

DWCF is comprehensive, indirect WCF based on skill acquisition theory (DeKeyser, 2007). It has been demonstrated to be a powerful tool for improving ESL students' linguistic accuracy compared to traditional grammar or writing classes (Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010; Hartshorn & Evans, 2012; Hartshorn & Evans, 2015; Kurzer, 2018).

Evans et al. (2010) suggested DWCF as an effective teaching strategy designed for those working in the ESL field to improve learners' linguistic accuracy. The researchers conducted a preliminary study of 27 low- to advanced-level ESL students to test the efficacy of their new concept. As a result of the DWCF technique, the treatment group showed more improvement in accuracy (as determined by the ratio of error-free clauses to the total number of clauses) than the control group. In addition, holistic scores, which were computed and recorded via a rubric, indicated higher proficiency in writing than the control group.

Hartshorn et al. (2010) sought to determine whether DWCF is more useful than traditional grammar instruction. The study included 47 advanced ESL students in an intensive English learning program (IEP). The treatment group, who received DWCF, had significantly higher accuracy scores than the control group, who received traditional grammar instruction. However, the treatment group had slightly lower rhetorical competence ratings, writing

fluency scores, and writing complexity scores than the control group, although differences in the scores between the two groups were not statistically significant.

Evans et al. (2011) investigated 30 university-matriculated advanced ESL students to determine whether DWCF was effective for university learners as well as IEP learners. The 16 treatment group participants wrote a paragraph three to four times per week and received DWCF, while the 14 control group students composed 20 pages of polished writing and received feedback mainly on rhetorical aspects and grammatical errors. Pre- and post-test results for a 30-minute essay indicated that the treatment group's writings were significantly more accurate than the control group's writing.

Hartshorn and Evans (2012) demonstrated the extent to which DWCF affected various linguistic domains for advanced ESL students. The authors investigated differences between 24 treatment and 19 control group participants with pre- and post-tests measuring various kinds of linguistic accuracy: sentence structure, determiner, verb, numeric agreement, semantic, lexical, and mechanical. The findings indicated that the treatment group significantly improved in every domain of accuracy compared to the control group, with the exceptions of sentence structure and numeric agreement, which did not improve significantly.

Hartshorn and Evans (2015) provided evidence that DWCF can improve students' accuracy using a longitudinal research design. A total of 27 advanced ESL students took part in that study, which was conducted over a 30-week period. The results showed that the DWCF treatment group participants wrote more accurately than the control group participants, who took traditional grammar classes, although there were no significant differences in fluency and complexity.

Kurzer (2018) conducted a study examining more diverse proficiency levels than prior research. Participants included 116 beginning, 97 intermediate, and 64 advanced ESL students. The participants in every level were divided into treatment and control groups.

Kurzer used DWCF to support grammar instruction more actively than previous researchers and revised the method to fit his purpose. Rather than having all participants write three to four days a week, he adjusted the frequency according to their proficiency level and gave level-appropriate instructions. Although the participants of this study wrote less than learners who participated in other studies implementing DWCF, the results showed that the treatment groups made significantly fewer errors in their writing.

Akiyama and Fleshler (2013) explored the effects of DWCF in the Japanese language learning setting. Their study's participants included 35 students enrolled in a first-year Japanese class at a college in the United States, who were divided into treatment and control groups. Both groups completed two kinds of assignments: grammar exercises and writing a paragraph without a time limitation (rather than the typical 10-minute paragraph writing in the classroom) and received metalinguistic coded feedback. The control group revised their draft only once, while the treatment group repeated the revision procedure following DWCF. Pre-test and post-test items were designed to include two forms: grammar exercises and a short essay writing exercise. The treatment group achieved higher scores on the grammar exercise than the control group, but there was no significant difference between the two groups in scores for the short essay.

Although DWCF has been proven to help students improve their L2 linguistic accuracy, it has mostly been implemented in advanced ESL classes and, to a limited degree, among Japanese as a foreign language (JFL) learners (Akiyama & Fleshler, 2013; Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010; Hartshorn & Evans, 2012; Hartshorn & Evans, 2015; Kurzer, 2018). In addition, the study conducted in the JFL context found significant improvement only for short-answer grammar questions but not for paragraph or essay writing (Akiyama & Fleshler, 2013). In other words, DWCF has only been proven to improve the linguistic accuracy of writing in ESL settings. Therefore, this study applies

DWCF in an intermediate KFL class to demonstrate whether the findings of previous research on DWCF can be expanded to a different language and proficiency level.

CHAPTER 3

Methodology

Research Questions

The purpose of the current study is to demonstrate the effect of DWCF on linguistic accuracy in writing for university-level intermediate KFL learners in the United States. The use of DWCF may yield improvements in students' written fluency and complexity in a KFL context, as it did in ESL contexts (e.g., Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010; Hartshorn & Evans, 2012; Hartshorn & Evans, 2015; Kurzer, 2018). Thus, my research questions are operationalized as follows:

1. To what extent does dynamic written corrective feedback increase linguistic accuracy for intermediate learners of Korean as a foreign language?
2. Will dynamic written corrective feedback affect the linguistic complexity and fluency of intermediate learners of Korean as a foreign language?

Participants

Students

The study's participants included 19 intermediate Korean learners enrolled in a third year Korean class at a large private university in the Western United States. Most students had previously spent 18–24 months in South Korea, with the exception of one student, who had taken university-level Korean classes for five semesters before enrolling in the class. All students were taught by the same instructor in the same classroom on Tuesdays and Thursdays but were divided into two sections on Monday, Wednesday, and Friday, with each section instructed by a different teacher. In this study, Section One was the treatment group, and Section Two was the control group. In the divided sections, the two teachers used the same materials and taught each section at the same time in different classrooms. There were

five male and four female students in the treatment group and six male and four female students in the control group, and all participants were native English speakers from the U.S.

Teachers

It is difficult to control for teacher variation when conducting a study in the context of an actual class, as here. Although all three teachers were native Korean speakers, they differed in certain ways, especially the two teachers for the Monday, Wednesday, and Friday sessions.

The first teacher (T1) taught both the treatment and control group students every Tuesday and Thursday. She is an expert language teacher who received a B.A. in teaching Korean education and an M.A. in Korean linguistics and literature. She also studied in an instructional psychology and technology Ph.D. program for three years. She has taught Korean for a combined 27 years in South Korea and the United States and has instructed intermediate Korean language learners in the United States for 15 years.

The second teacher (T2) taught the treatment group on Mondays, Wednesdays, and Fridays. She received a B.A. in teaching Korean language and culture in South Korea and is a master's student in a second language teaching program in the United States. She has taught beginning and advanced Korean for two semesters. This study was her third semester teaching Korean at the university where the current research was conducted.

The third teacher (T3) instructed the control group on Mondays, Wednesdays, and Fridays. She is an undergraduate student majoring in Chinese at a South Korean university and is in the United States as an exchange student for a semester. She had not taught Korean or any other language professionally before the present study. However, she lived with English native speakers for one and a half years in South Korea and voluntarily taught them Korean language and culture.

Raters

In this study, two raters measured linguistic accuracy, frequency, complexity, and estimated reliability. The first rater (R1) was the teacher of the treatment group, and the other (R2) was a visiting professor in a Korean language department. R2 obtained a B.A. and an M.A. in teaching Korean language and culture in South Korea. She wrote her M.A. thesis about L2 Korean speaking fluency assessment, which enabled her to become familiar with analyzing texts from intermediate Korean learners based on complexity, accuracy, and fluency.

Procedures

Students were divided into two groups to practice the language effectively in a classroom. All participants attended class on the first day of the semester. T1 divided them based on where they sat and assigned them to one of two sections. Age, sex, language proficiency, language background, and other variables were not considered in the section assignment.

Table 1

Pre- and Post-Test Topics

Pre-test topics	Post-test topics
내 인생에 영향을 준 인물 A person who has had an impact on my life	내 인생에서 가장 중요한 사람 The most important person in my life
내 인생의 목표 The purpose of my life	꼭 이루고 싶은 것 The thing that I really want to achieve
역사적인 사건 A historical event	이 세상에 일어난 특별한 사건 A special event that happened in the world

Both the treatment and control group wrote a 10-minute paragraph for each test. Pre- and post-tests were carried out three times each because measuring the result multiple times strengthens the reliability of the findings (Evans et al., 2014). The post-test topics were based

on the pre-test topics to minimize any confounding factors related to topic differences and to avoid the effect of differences in students' background knowledge about particular topics, as shown in Table 1. Topics were suggested in Korean and participants were able to ask questions if they did not understand either the meaning of a topic or the test procedure before beginning to write the 10-minute paragraph.

The treatment group was comprised of students from the first section, who were instructed to follow the DWCF procedure. They composed one 10-minute paragraph three times per week and received indirect feedback categorized by error codes the next class day (Appendix B). The paragraph topics were selected by the researcher based on chapters from the course textbook, *Ehwa Korean 5* (Lee et al., 2012). When learners received feedback, they were asked to correct their drafts and submit a revised draft the next class day. Students repeated the process of writing a paragraph, receiving feedback, and correcting their work until they produced an error-free draft of each paragraph.

Students were encouraged to submit an error-free draft of each paragraph by the fourth round of revisions, as revising by hand multiple times was labor-intensive for both students and teachers. In addition, repeatedly writing entire texts, regardless of how many errors they have, may cause fatigue and be perceived as a meaningless activity by upper-level learners of KFL. Therefore, if students failed to finish their draft successfully after the third revision, they were allowed to rewrite only sentences containing errors so that they did not feel overwhelmed by rewriting.

The control group wrote six essays on various topics presented in the textbook. They spent an estimated 37.5 minutes writing an essay, after which they received direct feedback, corrected the draft, and resubmitted the corrected draft the next class day. They did not repeat this procedure, regardless of whether or not the revised draft contained errors. In short, the writing assignments of the control group were different from those of the treatment group in

both time and method as you can easily see in Table 2, except that the control group also wrote all drafts by hand. Both the treatment and control groups worked on each assignment over 12 weeks.

Table 2

Writing Statistics for Treatment and Control Groups

Variable	Treatment	Control
Type of writing	One paragraph in class	Take-home essay
Time for one draft (minutes)	10	37.5
Number of writings	30	6
Total writing time (minutes)	300	225

Data Analysis

Complexity, accuracy, and fluency have been defined and measured differently by researchers because, as Ellis and Barkhuizen (2005) explained, various factors affect researchers' perceptions in the context of each study. This section defines accuracy, fluency, and complexity and outlines how each is measured in the present research study.

Table 3

Instruments Used to Measure Accuracy, Fluency, and Complexity

Variable	Instruments Used
Accuracy	<ol style="list-style-type: none"> 1. Error-free clauses per total number of clauses 2. Error-free syllables per total number of syllables 3. Number of errors per sentence
Fluency	<ol style="list-style-type: none"> 1. Number of sentences 2. Number of <i>eojeols</i> 3. Number of syllables
Complexity	<ol style="list-style-type: none"> 1. Clause-to-word ratio 2. Number of subordinate clauses per clause 3. Number of coordinate clauses and subordinate clauses per total number of sentences

Accuracy

Wigglesworth and Foster (2008) reported that calculating the number of error-free clauses per total number of clauses is currently the most precise measure of linguistic accuracy. However, as few intermediate Korean learners compose error-free clauses (Lee, 2016), other researchers have questioned the soundness of counting clauses to measure linguistic accuracy. Since measuring accuracy only by the ratio of error-free clauses to total clauses is insufficient, I evaluated students' linguistic accuracy in two other ways.

First, I counted the number of errors per sentence and categorized them by error code, showing how frequently students made certain errors in their writing. Second, I assessed the number of error-free syllables per total number of syllables. Using the ratio of error-free syllables to total syllables makes it possible to precisely measure the accuracy of students' writing assignments.

A syllable is smaller than a clause or a word; it is a tiny unit that can delicately distinguish the boundary of errors in the writing of KFL learners, who make many mistakes in orthography and inflection. Counting correct syllables is particularly helpful in Korean, as the language's syllables are easy to distinguish, and its writing system is unique in that combinations of letters create syllable blocks—unlike languages like English, which have a de-blocked model that enumerates consonants and vowels in a parallel system.

For example, the syllable 강 /kaŋ/ combines three phonemes. This blocked syllable system makes it possible for one syllable to be recognized as a character in the Korean language. Therefore, students' accomplishments are not underestimated when students make a small mistake in proper writing form if accuracy is measured by the error-free syllable rate. This measurement is detailed enough to judge students' accuracy in spelling and inflection, which are complex when writing in Korean.

Fluency

The concept of fluency in Korean writing is controversial. Lee (2016) believed that fluency in writing does not need to be measured, only accuracy and complexity, recognizing fluency as a concept related to the amount of time a student is allowed to perform a particular task. The sub-factors used to measure complexity and fluency are indistinguishable, except that fluency is a concept closely related to time.

I use the definition of fluency presented by Skehan and Foster (1999): the ability to compose meaningful language in real time. Accordingly, it is important to assess how much students can write in 10 minutes. The first measurement of fluency used in this study was the number of sentences. Sentences were chosen as the counted unit because they are an efficient way to measure the quantity of writing.

Second, the number of *eojeols* was used as a measure of fluency. *Eojeols* are a way to quantify the Korean language based on the amount of space used. Unlike English or other European languages, spaces do not distinguish Korean words in a sentence. Because Korean is an inflectional language, it has many declension and conjugation endings, which can create confusion in word distinction. The declension ending, called the particle, is usually attached after a noun without a space. It is recognized as a word because it serves the functions of indicating sentence constituents and adding meaning. However, the conjugation ending is not treated as a word because of its grammatical characteristics. It forms a single meaningful unit with a verb stem, and it is difficult to detach the stem and ending. However, many complicated conjugation endings should be written with two spaces, although they do not constitute a word. It is also possible to use more than two endings in a phrase. Due to this characteristic of the Korean linguistic system, it is difficult to define the extent of the concept of a word. For this reason, instead of simply calculating the number of words, I count spaces, which are called *eojeols*.

Finally, the number of syllables was calculated. While the syllable is not a meaningful unit in the Korean language, measuring syllables can enable researchers to understand the overall volume of students' writing. In previous studies (e.g., Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010), researchers consistently mentioned concerns about the impact of the repetition of writing on learners' complexity and fluency, although there was no significant decrease in students' fluency. They were concerned that the repetitive feedback-revision procedure might decrease fluency or complexity. By measuring the number of syllables, we can investigate the impact of DWCF on fluency in a more sophisticated way.

Complexity

I measured linguistic complexity in three ways, as the concept is difficult to calculate with only one measurement due to its multifaceted nature. First, the clause-to-word ratio was used to assess skills in writing long clauses and broadening sentences (Lee, 2016). If writers compose complicated clauses, this indicates that they possess the skill necessary to write complex texts.

Second, I calculated the number of subordinate clauses per clause. In the Korean writing system, subordinate clauses are much more complicated to write than main clauses and coordinate clauses (Park & Seo, 2009). Therefore, if Korean writers use many subordinate clauses, they are recognized as syntactically mature.

Finally, as Lee (2016) suggested, I measure the number of coordinate clauses and subordinate clauses per total number of sentences. A sentence that includes multiple clauses is more difficult to write than a single-clause sentence. By measuring the number of clauses per sentence, the general complexity of an entire text can be observed.

CHAPTER 4

Findings and Results

Chapter 4 describes the findings and results of this study in three sections. First, it presents Pearson's correlation coefficients estimating the reliability between the two raters who rated accuracy according to the three kinds of accuracy measurements suggested in Chapter 3. The second section demonstrates differences in accuracy between the treatment and control groups using mixed-model repeated measures ANOVA of pre- and post-test results to address the first research question. Finally, differences in fluency and complexity between the treatment and control groups based on the pre- and post-test results are reported, thereby addressing the second research question that looks at the changes in fluency and complexity.

Reliability Estimates

Both raters (R1 and R2) counted the number of errors, error-free clauses, and error-free syllables in students' writing. R1 calculated the number of clauses, sentences, and syllables. R1 was already familiar with the error codes because she had scored students' writing using these codes during the experiment. R2 had not previously experienced the error code, so she was trained on rating using the error codes before beginning the rating procedure.

The Pearson's correlation coefficients include correlations between R1 and R2 for the three types of accuracy measurements, namely the number of error-free syllables per total syllables ($r = .98; p < .001$), the number of error-free clauses per total clauses ($r = .98; p < .001$), and the number of errors per sentence ($r = .99; p < .001$). Because both raters rated each draft that participants wrote for the pre- and post-tests, the results provide enough evidence of reliability to warrant statistical analysis of participants' linguistic accuracy.

Mixed-Model Repeated Measures ANOVA Results

This section briefly explains how well the data fit with mixed-model repeated measures ANOVA before discussing the test results. Mixed-model repeated measures ANOVA is an excellent method of comparing differences between multiple groups over time. Here, it was used to analyze variations in the control and treatment groups between the pre- and post-tests in this study. While the control and treatment groups were not randomly assigned, students' experiences in the class unrelated to the treatment were controlled to be as similar as possible.

Accuracy

Error-Free Syllables. As shown in Table 4 and Figure 1, descriptive statistics for the mixed-model repeated measures ANOVA for the number of error-free syllables per total number of syllables were statistically significant, $F(1,17) = 21.509, p < .001$, and produced a large effect size ($\eta^2_p = .559$).

Table 4

Descriptive Statistics for Error-free Clauses per Total Number of Clauses

Test	Control ($n = 10$)		Treatment ($n = 9$)		Total ($N = 19$)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre	0.087	0.0606	0.808	0.068	0.843	0.071
Post	0.859	0.062	0.894	0.035	0.876	0.053

Note. *M* = mean; *SD* = standard deviation.

Error-Free Clauses per Total Clauses. The results of mixed-model repeated measures ANOVA for the number of error-free clauses per total number of clauses are presented in Table 5 and Figure 2. Differences between the treatment and control group were statistically significant, $F(1,17) = 24.417, p < .001$, and produced a large effect size ($\eta^2_p = .590$).

Table 5

Descriptive Statistics for Error-free Syllables per Total Number of Syllables

Test	Control ($n = 10$)		Treatment ($n = 9$)		Total ($N = 19$)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre	0.486	0.157	0.321	0.179	0.408	0.183
Post	0.460	0.156	0.572	0.163	0.513	0.165

Note. *M* = mean; *SD* = standard deviation.

Number of Errors per Sentence. As shown in Table 6 and Figure 3, the results of mixed-model repeated measures ANOVA for the number of errors per sentence were also statistically significant, $F(1,17) = 26.276, p < .001$, and produced a large effect size ($\eta^2_p = .607$).

Table 6

Descriptive Statistics for Number of Errors per Sentence

Test	Control ($n = 10$)		Treatment ($n = 9$)		Total ($N = 19$)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre	2.693	1.052	4.083	1.180	3.351	1.296
Post	2.979	1.016	2.384	0.598	2.697	0.877

Note. *M* = mean; *SD* = standard deviation.

Figure 1

Descriptive Statistics for Error-free Clauses per Total Number of Clauses

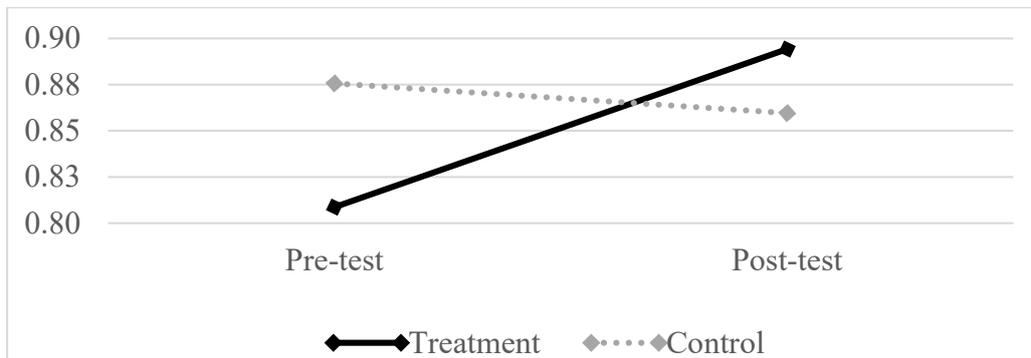


Figure 2

Descriptive Statistics for Error-free Syllables per Total Number of Syllables

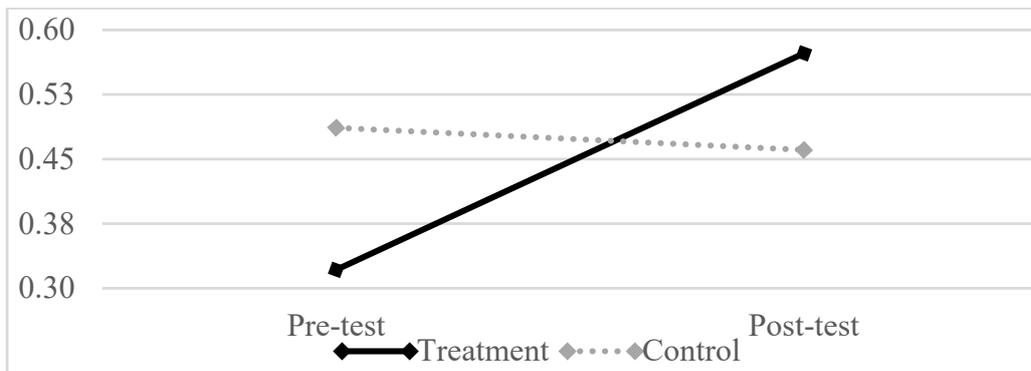
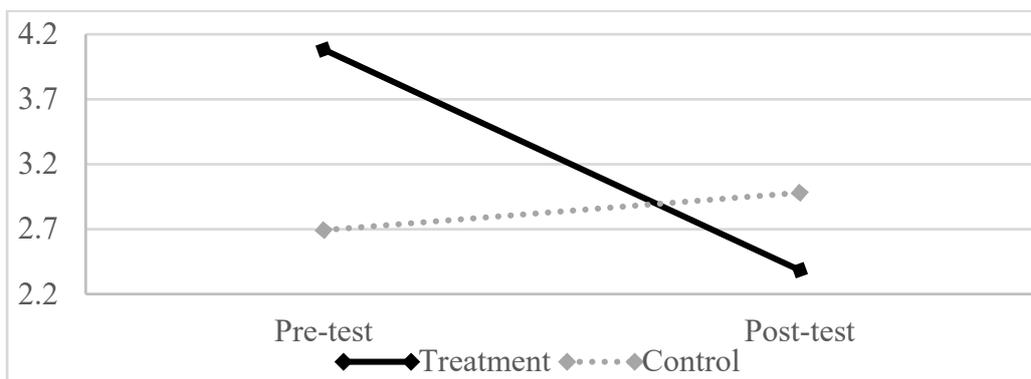


Figure 3

Descriptive Statistics for Number of Errors per Sentence



These results can be used to answer the first research question: “To what extent does dynamic written corrective feedback increase linguistic accuracy for intermediate learners of Korean as a foreign language?” This question can be reworded as “Will the improvement of linguistic accuracy in the treatment group be significantly greater than that of the control group?” As reported, all three sets of results were statistically significant, meaning that the linguistic accuracy of the treatment group improved significantly compared to that of the control group. In conclusion, DWCF helps intermediate KFL learners increase their linguistic accuracy.

Fluency

Three measures of fluency were used in this study, and there was no significant difference between the treatment and control groups for the pre- or post-test. Neither group’s fluency meaningfully changed. First, for the total number of sentences, the difference was negligible ($F(1,17) = 0.025$; $p = .875$). Second, for the total number of *eojeols*, there was no significant difference between the control and treatment groups ($F(1,17) = 0.125$; $p = .728$). Finally, there was also no statistically significant difference for the total number of syllables ($F(1,17) = 0.810$; $p = .381$).

Complexity

Complexity was also measured in three different ways. First, for the word-to-clause ratio, there was no difference between the two groups ($F(1,17) = 0.052$; $p = .822$). However, the overall word-to-clause ratio increased over time, even though it was not statistically significant ($F(1,17) = 3.170$; $p = .093$; $\eta^2_p = 0.157$). Second, there was no significant difference between the two groups for the number of subordinate clauses per total number of clauses ($F(1,17) = 0.966$; $p = .340$). Finally, for the number of coordinate and subordinate clauses per total number of sentences, there was no statistically significant difference between the control and treatment groups ($F(1,17) = 0.740$; $p = .402$).

CHAPTER 5

Discussion and Conclusion

Discussion

This study investigated the effects of DWCF on intermediate KFL learners' linguistic accuracy, fluency, and complexity through 10-minute paragraph writing. The main research question, which addresses the effectiveness of DWCF, was developed due to the need to introduce an efficient teaching method for KFL writing classes. While previous research on DWCF (Evans et al., 2010; Evans et al., 2011; Hartshorn et al., 2010; Hartshorn & Evans, 2015; Kurzer, 2018; Marzban & Arabahmadi, 2013) has demonstrated that this teaching strategy helps FL learners improve their linguistic accuracy in various dimensions, these findings were limited to an ESL context. Therefore, the current study attempted to show the efficacy of DWCF in a Korean language setting.

Nineteen university students enrolled in a third-year Korean class participated in this study. The participants were divided into treatment and control groups and were taught in the same way, except for the treatment group's receiving of DWCF. A 10-minute paragraph exercise was used for three each of pre- and post-tests, and the results were analyzed with mixed-model repeated measures ANOVA to compare the linguistic accuracy, fluency, and complexity of both groups.

As a result, the treatment group significantly outperformed the control group in accuracy according to all three accuracy measurements. However, there was no meaningful difference in fluency and complexity between the two groups. On one complexity measurement (the word-to-clause ratio), both groups showed meaningful increases over time, although the differences between the groups and the results were not statistically significant. Therefore, it is possible to say that the current research supports that DWCF is effective in improving linguistic accuracy for FL learners as previous studies of DWCF have shown.

Furthermore, the study extended evidence of the positive effects of DWCF on FL writing skills to KFL learners as well as ESL learners.

The current study compared focused and comprehensive feedback and chose to use comprehensive feedback. Though previous research had more evidence that focused feedback can be more beneficial for FL learners, it is mainly because language teachers and students must consider how to improve language skills to focus on various grammar points at the same time, not only on articles or prepositions. As a result, the current study demonstrated that even though it is not contrasted with focused feedback, systemically designed comprehensive feedback can be effective for KFL learners.

In addition, this study utilized instruments that have never been used before to measure linguistic accuracy and fluency: error-free syllables per total number of syllables and number of syllables. The syllable is a great unit to be considered because it is the smallest unit that is easy to be recognized and broken down, especially in the Korean language. However, the possible effectiveness of utilizing syllables has been overlooked in the study of Korean writing because Korean writing research has previously been based on other FL writing education studies, such as ESL, and other language studies did not have to consider syllables as much as the Korean language study due to the differences of languages. However, this study acknowledged the usefulness of the syllable in Korean writing research and applied it to show improvement of writing for KFL learners.

Limitations

As with most classroom-based research studies, this study has limitations. First, the treatment group was required to write much more than the control group, as shown in Table 1 (p. 20). The writing time of the treatment group was controlled because these participants composed their drafts during class time. However, because the control group started and finished their drafts outside of the classroom, their writing time was not limited. For

comparison purposes, the participants estimated and recorded how long they spent writing and revising their drafts. Participants in the control group estimated that they spent approximately 40 minutes writing the first draft of one essay and approximately 147 minutes revising the draft after receiving direct feedback. On the other hand, the treatment group spent 10 minutes composing each paragraph in class, plus an average of 12 minutes revising the first draft, a little over 6 minutes revising the second draft, and just under 4 minutes revising the third draft. Because the treatment group spent more time writing and underwent more revision steps, they spent a greater amount of time on writing and revision overall. Therefore, the significant improvement in the treatment group's linguistic accuracy could be a result of the additional writing time.

Table 7

Writing and Revision Times for Treatment and Control Groups

Variable	Treatment	Control
Writing type	10-minute paragraph in class	Take-home essay
Writing time (minutes)	300	240*
Revision time (minutes)	661.876*	146.667*

* Reflects time as estimated by participants.

A second limitation of this study is its limited sample size. In many ways, the two groups were comparable: they had similar Korean language backgrounds, received the same classroom instructional style, and had similar gender and ethnicity distributions. However, there were only nine and ten students in the treatment and control groups, respectively. In addition, the students were grouped by classes organized before the study and were not randomly selected for the study itself.

Another limitation is that it was difficult to control for the effect of the teachers. The two teachers who directly influenced the study (T2 and T3) had different academic backgrounds, linguistic knowledge, and teaching experience. In addition, although T3 was

not involved in the current study apart from teaching the control group on Mondays, Wednesdays, and Fridays, T2 was a researcher in this study. As such, there is a possibility that the treatment group participants were better informed about the research procedure.

Suggestions for Future Research

Various recommendations can be made for future research. First, a study implementing DWCF for KFL learners at different types of institutions, such as universities in South Korea or the *King Sejong* institute, would provide additional evidence of the effectiveness of DWCF for KFL learners. DWCF could also be applied at different Korean language levels to determine its effectiveness across levels.

Another potential avenue for future research would be a longitudinal study of DWCF for KFL learners, similar to those that have been conducted in ESL contexts (Hartshorn & Evans, 2015). Although linguistic accuracy improved after the 12-week treatment in this study, it is difficult to determine how DWCF would impact students when the treatment is longer than a semester. Future research in which participants spend more or less time writing during class or write more or less frequently would contribute to the literature concerning the efficacy of DWCF for KFL learners.

In addition, different types of accuracy, fluency, and complexity measures could be examined in future studies. Hartshorn and Evans (2012) showed that DWCF has benefits for broad domains of linguistic accuracy. The researchers found that mechanical and grammatical accuracy significantly increased in the treatment group, whereas numerical agreement and sentence structure accuracy did not significantly improve. The current research used only three kinds of accuracy measurements. Future research might test accuracy in various ways to more precisely detail the influence of DWCF on the linguistic accuracy of KFL writing. Future research studies that look at the effects of DWCF on foreign

language writing in different languages would be helpful to determine whether or not DWCF could help language learners improve their writing.

Conclusion

The purpose of this study was to demonstrate the effect of DWCF on the linguistic accuracy of intermediate learners of KFL, compared to the traditional approach to providing written feedback. The research questions were formulated to determine whether there were any changes in linguistic accuracy, fluency, and complexity for the treatment and control groups. The findings show that, while DWCF did not significantly affect fluency and complexity, it helped learners improve linguistic accuracy. These findings suggest that KFL teachers should use this manageable, meaningful, and timely teaching strategy in the classroom. Furthermore, the study results will benefit instructors of Korean who want to help their students improve their linguistic accuracy and are frustrated because they are unsure how best to facilitate this.

REFERENCES

- Akiyama, Y., & Fleshler, M. (2013). Effects of dynamic written corrective feedback on JFL students' homework. In K. Kondo-Brown, Y. Saito-Abbot, S. Satsutani, M. Tsutsui, & A. K. Wehmeyer (Eds.), *New perspectives on Japanese language learning, linguistics, and culture* (pp. 49–68). National Foreign Language Resource Center.
- Ashwell, T. (2000). Patterns of teacher response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing, 9*(3), 227–257.
- Baik, J. P. (2016). A study on the feedback effect in Korean writing education by using meta-analysis. *Urimal, 44*, 251–281.
- Baleghizadeh, S., & Dadashi, M. (2011). The effect of direct and indirect corrective feedback on students' spelling errors. *Profile: Issues in Teachers' Professional Development, 13*, 129–137.
- Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17*, 102–118.
- Bitchener, J., & Knoch, U. (2009). The relative effectiveness of different types of direct written corrective feedback. *System, 37*, 322–329.
- Bitchener, J., & Knoch, U. (2010). Raising the linguistic accuracy level of advanced L2 writers with written corrective feedback. *Journal of Second Language Writing, 19*, 207–217.
- Byrne, D. (1979). *Teaching writing skills*. Longman.
- Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing, 12*, 267–296.

- DeKeyser, R. (2007). Skill acquisition theory. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 97–113). Lawrence Erlbaum.
- Dong, D., & Kim, Y. J. (2014). Effect of conference feedback on improvements of writing contents in Chinese learners of Korean. *Korean Education, 100*, 175–208.
- Ellis, R., & Barkhuizen, G. P. (2005). *Analysing learner language*. Oxford University Press.
- Ellis, R., Sheen, Y., Murakami, M., & Takashima, H. (2008). The effects of focused and unfocused written corrective feedback in an English as a foreign language context. *System, 36*, 353–371.
- Evans, N. W., Hartshorn, K. J., Cox, T. L., & De Jel, T. M. (2014). Measuring written linguistic accuracy with weighted clause ratios: A question of validity. *Journal of Second Language Writing, 24*, 33–50.
- Evans, N. W., Hartshorn, K. J., McCollum, R. M., & Wolfersberger, M. (2010). Contextualizing corrective feedback in L2 writing pedagogy. *Language Teaching Research, 14*, 445–463.
- Evans, N. W., Hartshorn, K. J., & Strong-Krause, D. (2011). The efficacy of dynamic written corrective feedback for university-matriculated ESL learners. *System, 39*, 229–239.
- Farrokhi, F., & Sattarpour, S. (2012). The effects of direct written corrective feedback on improvement of grammatical accuracy of high-proficient L2 learners. *World Journal of Education, 2*, 49–57.
- Ferris, D. R. (1995). Student reactions to teacher response in multiple-draft composition class-rooms. *TESOL Quarterly, 29*, 33–53.
- Ferris, D. R. (1999). The case for grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing, 8*, 1–11.

- Ferris, D. R. (2004). The “grammar correction” debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?). *Journal of Second Language Writing, 13*(1), 49–62.
- Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing, 10*, 161–184.
- Hartshorn, K. J., & Evans, N. W. (2012). The differential effects of comprehensive corrective feedback on L2 writing accuracy. *Journal of Linguistics and Language Teaching, 3*(2), 25–50.
- Hartshorn, K. J., & Evans, N. W. (2015). The effects of dynamic written corrective feedback: A 30-week study. *Journal of Response to Writing, 1*(2), 6–34.
- Hartshorn, K. J., Evans, N. W., Merrill, P. F., Sudweeks, R. R., Strong-Krause, D., & Anderson, N. J. (2010). Effects of dynamic corrective feedback on ESL writing accuracy. *TESOL Quarterly, 44*, 84–109.
- Hendrickson, J. M. (1978). Error correction in foreign language teaching: Recent theory, research, and practice. *Modern Language Journal, 62*(8), 387–398.
- Jang, H. M., Jung, W. G., Kim, S. Y., & Lee, S. Y. (2014). A study on the research trends of feedback studies in Korean language education. *The Korean Society of Bilingualism, 56*, 314–340.
- Jee, M. J. (2015). A study of language learner motivation: Learners of Korean as a foreign language. *Journal of Korean Language Education, 26*(2), 213–238.
- Jeon, S. J. (2004). Needs analysis of Korean learners for reading education for academic purpose. *Teaching Korean as a Foreign Language, 29*, 203–230.
- Jeong, M. S. (2012, Apr. 21). *Writing education and suggestions in integrated classes* [Conference presentation]. The 37th Spring Conference of the International

Association for Korean Language Education, University of Korea, Seoul, South Korea.

- Jin, D. Y. (2009). A study on the expertise of writing instruction for Korean teachers. *The International Association for Korean Language Education*, 12(3), 145–155.
- Jin, D. Y. (2015). A study on improving teachers' ability of teaching in Korean as an L2. *Foreign Language Education Research*, 18, 146–166.
- Jin, S., & Seo, A. (2018). The effect of teacher's feedback type on grammar error reduction and writing proficiency enhancement in student writing of elementary Korean learners. *Studies in Foreign Language Education*, 32, 321–328.
- Kang, H. (2009). Teaching-learning model for academic writing. *The language and culture*, 5(1), 1–22.
- Kim, J. (2008). Aspects of sentence and paragraph errors in the Korean writings of special purpose learners of Korean. *The Society of Chung-Ang Language & Literature*, 64, 437–464.
- Kim, K. (2015). The feedback effect influencing Korean learner's writing accuracy. *Korean Language and Culture*, 18, 423–440.
- Kim, M. J. (2008). *Comparison of the effects of teacher and peer feedback on rewriting in Korean as a second language* [Unpublished master's thesis]. Ehwa Women's University.
- Kurzer, K. (2018). Dynamic written corrective feedback in developmental multilingual writing classes. *TESOL Quarterly*, 52, 5–33.
- Lee, B. J. (2016). *A study on the dynamic development of complexity, accuracy and fluency in Korean learners' writing and speaking* [Unpublished doctoral dissertation]. Yonsei University.

- Lee, J. Y., Lee, M. K., Kim, M. J., Park, S. Y., & Song, S. M. (2012). *Ehwa Korean 5*. Ehwa University Press.
- Lee, Y., & Kim, Y. (2013). The effect of teacher feedback types on reduction of vocabulary error in student writing. *Teaching Korean as a Foreign Language, 39*, 165–191.
- Lim, H., Jeon, H. G., & Lee, I. (2014). A study of students' revisions regarding feedback on KFL students' writing: Based on spoken teacher feedback and written teacher feedback. *The language and culture, 10*(2), 173–201.
- Marzban, A., & Arabahmadi, S. (2013). The effect of written corrective feedback on Iranian EFL students' writing. *Procedia-Social and Behavioral Sciences, 83*, 1000–1005.
- Na, W. J. (2008). *Effects of self-monitoring feedback on improvement of writing ability of Korean language learners* [Unpublished master's thesis]. Ehwa Women's University.
- Park, J. (2007). *The effect on reduction of form errors in student writing according to teacher feedback methods* [Unpublished master's thesis]. Ehwa Women's University.
- Park, J. S. (2018, Feb. 3). *A study on the genre analysis for improving the Korean writing ability of international students* [Conference presentation]. The 29th National Conference of Korea Grammar Education Circle, Ehwa Women's University, Seoul, South Korea.
- Park, J. S. & Seo, S. J. (2009). Syntactic proficiency measurement of Korean language learner's writing, *The Language and Culture, 5*(2), 151–173.
- Park, Y. (2009). *The impact of feedback type on grammar error correction in Korean writing: Focusing on direct and indirect feedback* [Unpublished master's thesis]. Korea University.
- Park, Y. (2013). *Effects of teacher's feedback form on writing ability and affective aspect of Korean learners: Focusing on oral conference feedback and direct written feedback* [Unpublished master's thesis]. Ehwa Women's University.

- Polio, C., Fleck, C., & Leder, N. (1998). "If I only had more time": ESL learners' changes in linguistic accuracy on essay revisions. *Journal of Second Language Writing*, 7, 43–68.
- Robb, T., Ross, S., & Shortreed, I. (1986). Salience of feedback on error and its effect on EFL writing quality. *TESOL Quarterly*, 20, 83–96.
- Saeb, F. (2014). The effects of focused and unfocused written corrective feedback on the grammatical accuracy of beginner EFL learners. *International Journal of Applied Linguistics and English Literature*, 3(2), 22–26.
- Semke, H. D. (1984). Effects of the red pen. *Foreign Language Annals*, 17, 195–202.
- Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, 41, 255–283.
- Sheen, Y., Wright, D., & Moldawa, A. (2009). Differential effects of focused and unfocused written correction on the accurate use of grammatical forms by adult ESL learners. *System*, 37, 556–569.
- Sheppard, K. (1992). Two feedback types: Do they make a difference? *RELC Journal*, 23, 103–110.
- Shin, A. D. (2010). *The effect of teacher feedback on the Korean as a second language writing ability: Focusing on grammatical form* [Unpublished master's thesis]. Yeungnam University.
- Shon, S. H., & Jeon, N. Y. (2011). A study of language learning motivation of Korean language learners. *Journal of Korean Language Education*, 22(3), 133–152.
- Silva, T. (1993). Toward an understanding of the distinct nature of L2 Writing: The ESL research and its implications. *TESOL Quarterly*, 27, 657–677.
- Skehan, P., & Foster, P. (1999). The influence of task structure and processing conditions on narrative retellings. *Language Learning*, 49(1), 93–120.

- Song, U. O. (2014). *Effect of teacher feedback type on improvement of Korean writing proficiency in marriage immigrant women* [Unpublished master's thesis]. Ehwa Women's University.
- Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46*, 327–369.
- Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. *Journal of Second Language Writing, 16*, 255–272.
- Truscott, J., & Hsu, A. Y. P. (2008). Error correction, revision, and learning. *Journal of Second Language Writing, 17*, 292–305.
- Van Beuningen, C. G., De Jong, N. H., & Kuiken, F. (2012). Evidence on the effectiveness of comprehensive error correction in second language writing. *Language Learning, 62*, 1–41.
- Wang, H. S. (2016). Influence of “Korean wave” on Korean language education: Focus on learners' perceptions. *The International Association for Korean Language Education, 3*(1), 232–240.
- Westmacott, A. (2017). Direct vs. indirect written corrective feedback: Student perceptions. *Íkala, Revista de Lenguaje y Cultura, 22*(1), 17–32.
- Wigglesworth, G., & Foster, P. (2008, Apr. 2-5). *Measuring accuracy in second language performance* [Paper presentation]. The 42nd Annual TESOL Convention, New York, NY, United States.
- Williams, J., & Cui, G. (2005). *Teaching writing in second and foreign language classrooms*. McGraw-Hill.
- Xu, C., & Bitchener, J. (2009). Overgeneralization from a narrow focus: A response to Ellis et al. (2008) and Bitchener (2008). *Journal of Second Language Writing, 18*, 270–275.

Yoon, J. (2013). A study on the teacher's difficulties and improvement in Korean writing class. *International Network for Korean Language and Culture*, 10(1), 99–129.

APPENDIX A

Topics for The Treatment Group

제 4 과 과학과 기술

Chapter 4. Science and Technology

Topic 1 (T1). 과학 기술 발전의 문제점

The problem of technological development

T2. 생명 복제

Life cloning

T3. 내 삶에서 없어서는 안 되는 물건

An indispensable thing in my life

T4. 어렸을 때에 비해 지금 달라진 점

What's different now compared to when you were a child

T5. 미래의 세상

The world of the future

T6. 고등학교 시절

My high school days

제 5 과 현대 사회와 개인

Chapter 5. Modern society and individuals

T7. 부모님과의 세대 차이

The generation gap with parents

T8. 요즘 젊은 사람들

Young people these days

T9. 좋은 법, 좋은 규칙

Good law, good rule

T10. 다른 사람을 돕는 일

A job or behavior of helping others

T11. 양심에 걸리는 일

A matter of conscience

T12. 너무 바쁜 현대 사회

A busy modern society

제 6 과 문화와 상징

Chapter 6. Culture and Symbols

T13. 고정관념

A fixed idea

T14. 내가 좋아하는 한국 문화

My favorite aspect of Korean culture

T15. 전통 문화를 유지하는 방법

How to maintain traditional culture

T16. 한국과 미국의 음식 문화 차이

Differences in food culture between Korea and the United States

T17. 미국 문화 중 좋아하는 것과

싫어하는 것

The likes and dislikes of American culture

제 7 과 자연과 환경

Chapter 7. Nature and environment

T18. 환경 오염의 피해자

Victims of environmental pollution

T19. 환경 오염이 심각하다고 생각했던

경험

Reasons why I think environmental pollution is serious

T20. 환경 보호와 기술 개발 중 무엇이 더 중요한가

Which is more important, environmental protection or technological development?

T21. 인상 깊었던 자연 환경

An impressive natural environment

T22. 계절이 바뀔 때 일어나는 현상

A phenomenon that occurs with the changing of the seasons

제 8 과 매체와 사회

Chapter 8. Media and society

T23. 내가 자주 사용하는 매체

Media I use frequently

T24. 매체를 잘 활용하는 방법

How to make good use of media

T25. 인터넷에서 경험한 기분 나쁜 일

A bad experience on the Internet

T26. 연예인의 사생활

A celebrity's privacy

T27. 최근에 본 재미있는 영화

An interesting movie that I saw

T28. 좋아하는 영화 장르와 별로 안

좋아하는 영화 장르

My favorite and least favorite movie genres

T29. 좋아하는 동계 스포츠

My favorite winter sports

T30. 요즘의 경제 상황

Current economic conditions

APPENDIX B

Korean Error Correction Codes

Writing style		Grammar mistake	
Sp	Spelling mistake	P	Incorrect particle
hnr	Incorrect honorific form	irr	Irregular inflection/conjugation mistake
∞	Order	C/A	Incorrect causation form (causation vs. active)
○	Something is omitted	P/A	Incorrect passive form (passive vs. active)
×	Remove this	T	Incorrect tense
?	Can't understand what you mean	P/B	Present tense vs. basic form
WC	Wording choice	이거	Relative pronoun (이/그/저 cf. this/that)
☺	Spoken language	cnt	Contract this
eng	Write this in Korean, not English	exp	Do not contract this (expand)
.	End the sentence here	GWC	-Grammatical wording choice -Incorrect inflection/conjugation
pt	Punctuation	but	-Grammatical wording choice - <i>but</i> (-는데, -지만)
ST	Sentence structure Or looks like translated sentence	b/c	-Grammatical wording choice - <i>because</i> (-아서/어서, -(으)니까, -기 때문에)
		and	-Grammatical wording choice - <i>and</i> (-고, -아서/어서, -(으)나 데/는데)
		NP	-Grammatical wording choice -making noun phrase (는- 것, -기)

APPENDIX C

Example of Timeline

	Monday	Wednesday	Friday	Monday	Wednesday
Paragraph	Student:				
			Writes pre-test 1	Writes pre-test 2	Writes pre-test 3
T1	Writes 1 st draft	Receives feedback on 1 st draft from the teacher	Edits and submits 2 nd draft	Receives feedback on 2 nd draft from the teacher	Edits and submits 3 rd draft (<i>finished</i>)
T2		Writes 1 st draft	Receives feedback on 1 st draft from the teacher	Edits and submits 2 nd draft	Receives feedback on 2 nd draft from the teacher
T3			Writes 1 st draft	Receives feedback on 1 st draft from the teacher	Edits and submits 2 nd draft

	Monday	Wednesday	Friday
	Pre-test 1	Pre-test 2	Pre-test 3
Note 1	Write P1* 1 st draft	Receive feedback on P1	Write P3 1 st draft Submit revised P1
Note 2		Write P2 1 st draft	Receive feedback on P2
Note 1	Receive feedback on P1, P3	Write P5 1 st draft Submit revised P1, P3	Receive feedback on P1, P3, P5
Note 2	Write P4 1 st draft Submit revised P2	Receive feedback on P2, P4	Write P6 1 st draft Submit revised P2, P4
Note 1	Write P7 1 st draft Submit revised P1, P3, P5	Receive feedback on P7	Write P9 1 st draft Submit revised P3, P5, P7
Note 2	Receive feedback on P2, P4, P6	Write P8 1 st draft Submit revised P2, P4, P6	Receive feedback on P4, P6, P8

* First paragraph