Exploring Student Engagement with Written Corrective Feedback in First-Year

Composition Courses

by

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A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

Approved April 2015 by the Graduate Supervisory Committee:

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May 2015

ABSTRACT

This study provides insights into the nature of L2 writers' engagement with written corrective feedback (WCF) - how they process it and what they understand about the nature of the error - to explore its potential for language development. It also explores various factors, such as individual, socio-contextual, and pedagogical, which influence the extent of student engagement. Data include students' revisions recorded with screen-capture software and video-stimulated recall. The video-stimulated recall data were transcribed and coded for evidence of processing, error awareness, and error resolution. In addition, I conducted interviews with students and their instructors, and through a thematic analysis, I identified individual and socio-contextual factors that appeared to influence students' engagement.

The findings of the study indicate that the processing of WCF and error awareness may be affected by pedagogical factors, such as the type of feedback and its delivery method. In addition, I found that while socio-contextual factors, such as grading policy, may influence students' attitudes toward the importance of grammar accuracy in their writing or motivation to seek help with grammar outside of class, such factors do not appear to affect students' engagement with WCF at the time of revision.

Based on the insights gained from this study, I suggest that direct feedback may be more beneficial if it is provided in a comment or in the margin of the paper, and that both direct and indirect feedback may be more effective if a brief explanation about the nature of the error is included. In addition, students may need to be provided with guidelines on how to engage with their instructors' feedback. I conclude by suggesting that if WCF is provided, students should be held accountable for making revisions, and I

recommend ways in which this can be done without penalizing students for not showing immediate improvements on subsequent writing projects.

DEDICATION

To my family, my husband and my two daughters, who have been the biggest sources of motivation, and my parents, who instilled in me a sense of independence and open-mindedness, which I believe are two fundamental qualities that have led me to where I am today.

ACKNOWLEDGMENTS

I am deeply grateful to many individuals who in various ways supported me throughout the process of writing this dissertation. I would like to express my deepest gratitude to my advisor and chair, Dr. Paul Matsuda, for sharing his expertise and providing constructive advice at all stages of this project. I am also grateful to my committee members, Dr. Aya Matsuda and Dr. Mark James, who both have been very supportive and offered constructive advice in the initial stages of the project. I am very fortunate to have the opportunity to work with such dedicated and inspiring scholars.

I would also like to thank those who have indirectly contributed to the successful completion of this project. I would like to acknowledge the unconditional support and mentorship of Dr. Donaldo Macedo, who inspired me to pursue the doctoral degree. I want to thank the professors at Arizona State University, Dr. Barbara Lafford for her support and many research opportunities which have been invaluable in shaping my professional identity, as well as Dr. Carlos Ovando and Dr. Bryan Smith, who have been always supportive and willing to share invaluable advice.

I am very grateful to those who volunteered to participate in the study—the four instructors and their eight students. This dissertation would not be possible without their willingness to share their perspectives and allow me to scrutinize their every word and statement, and even facial expressions. I have learned a lot from the experiences of all of my participants, and I feel very fortunate to be able to work with such an open-minded group of people. The successful completion of this project would also not be possible without the support of my ASU friends. Special thanks go to Jianing Liu and Sarah Elizabeth Snyder, who both helped with coding portions of my data.

TABLE OF CONTENTS

	Page
LIST OF TABLES	xii
LIST OF FIGURES	xiii
CHAPTER 1: INTRODUCTION	1
Statement of Problem	3
Overview of Chapters	6
CHAPTER 2: FRAMING THE STUDY	8
Review or Relevant WCF Studies	8
Studies of Student Engagement with WCF	8
Engagement with Different Feedback Types	10
Studies Investigating Noticing of WCF	13
Individual Factors Affecting Student's Engagement with WCF	14
Socio-contextual Affecting Factors Students' Engagement with WCF	16
Definition of Engagement	18
Framework for Investigating Engagement	22
Previous Theoretical Frameworks adopted in studies of engagement with	
WCF	24
Sociocultural Theory	24
The Interactionist Perspective	26
Usage-Based Theory of Language Learning	28
The Origins of Usage-Based Theory	29
Learning of Constructions	30

	Page
Construction Frequency	32
L2 Development and the Role of WCF	34
WCF within the Tenents of Usage-Based Theory of Language Learning	35
Conclusion	39
CHAPTER 3: METHOD	40
Research Questions	40
Context of the Study	41
Recruitment Procedures	43
Participants	44
Students	44
Instructors	47
Data Collection Procedure and Methods	49
Screen-Capture and Web-Cam Video	50
Video-Stimulated Recall	51
Observer Effect and its Implications	52
Interviews with Students	53
Interview with Instructors	55
Data Analysis	55
Students' Drafts	55
Screen-Capture and Video-Stimulated Recall	56
Reliability of Coding	59
Interviews with Students	61

	Page
Interviews with Instructors	62
Trustworthiness of Interview Data Analysis	62
CHAPTER 4: STUDENT ENGAGEMENT WITH WCF AND THE	
PEDAGOGICAL FACTORS THAT INFLUENCE IT	64
WCF Identified in Students' Texts	64
Direct Feedback	65
Indirect Feedback	66
Error Location with Error Code	66
Comments with Metalinguistic Explanations	67
Comments without Metalinguistic Expanations	68
Error Location by Highlighting	68
The Outcome of Student Revision	70
Students' Engagement and Error Awareness	72
Direct Feedback	74
Direct Feedback Delivered via Track Changes	76
Unfamiliarity with Track Changes	77
Disregard for Track Changes	78
Noticing of Correction Patterns	80
Error Awareness with Confusion	82
Confusion without Error Awareness	83
Handwritten Direct Feedback	86
Editing, Not Learning	87

	Page
Direct Feedback Provided in a Comment.	89
Indirect Feedback	91
Error Location with Error Code	92
Ignored Errors	92
Careless Revision	93
Inability to See the Error	96
Comments with Metalinguistic Explanations	101
Inability to Fully Understand Feedback	101
Simple, Effective Explanations	104
Comments without Metalinguistic Expanations	106
Error Avoidance	106
Revision by Simplification	108
Inability to Understand Feedback	108
Error Location by Highlighting	110
Conclusion	111
CHAPTER 5: SOCIO-CONTEXTUAL FACTORS INFLUENCING	
STUDENT'S ENGAGEMENT WITH WCF	114
Socio-Contextual Background	114
Grading Based on Grammar in FYC and Other Courses	114
The FYC Instructors' Approach to Addressing Grammar Issues	116
WCF at The Writing Center	119

	Page
WCF for Language Learning	149
Providing Effective Feedback	150
The Need for Clear Expecations and Guidelines	151
The Need for Accountability	153
Methodological Implications	154
Institutional Implications	156
Limitations	157
Future Research	158
REFERENCES	161
APPENDIX	
A IRB PROTOCOL	167
B FEEDBACK METHOD QUESTIONNAIRE (INSTRUCTORS)	169
C INVITATION TO PARTICIPATE IN THE STUDY	171
D BACKGROUND QUESTIONNAIRE (STUDENTS)	173
E STUDENT INTERVIEW QUESTIONS (BEGINNING OF THE	
SEMESTER)	175
F STUDENT INTERVIEW QUESTIONS (END OF THE SEMESTER)	177
G INSTRUCTOR INTERVIEW QUESTIONS	179
H CODING SHEET	181

LIST OF TABLES

able	ge
1. Student Participants	46
2. Data Collection Methods	49
3. Feedback Type Identified in Students' Papers	65
4. Error Resolution and Percentage (%) of Students' Total LREs	70
5. Error Resolution by Feedback Type and Percentage (%) for Each Type	71
6. Error Resolution and Percentage (%) of Students' Indirect Feedback Only	72
7. Engagement with WCF and Percentage (%) of Student Total LREs	74
8. Error Awareness and Percentage (%) of Student Total Number of LREs	74
9. Engagement with Direct Feedback by Method of Delivery (LREs)	75
10. Error Awareness for Direct Feedback by Method of Delivery (LREs)	76
11. Engagement with Indirect Feedback and Percentage (%) for Each Type	91
12. Error Awareness for Indirect Feedback and Percentage (%) for Each Type 9	92

LIST OF FIGURES

Figure		Page
	1.	A Componential Framework For Investigating CF
	2.	LRSs Coding Procedure: Engagement
	3.	LRSs Coding Procedure: Error Awareness
	4.	Handwritten Direct Correction 66
	5.	Track Changes Shown in Line
	6.	Track Changes Shown in Line and in "Bubbles"
	7.	Error Location with Error Code
	8.	Comment with Metalinguistic Explanation
	9.	Comment without Metalinguistic Explanation
	10.	Error Location by Highlighting
	11.	Qiang's Direct Feedback (insertion of "speaking")
	12.	Dong's Direct Feedback (deletion of "stated that")
	13.	Min's Direct Feedback (insertion of "which")
	14.	Min's Direct Feedback ("called universally")
	15.	Qiang's Paragraph with Direct Feedback (past tense)
	16.	Qiang's Direct Feedback ("watching")
	17.	Lin's Direct Feedback
	18.	Hui's Direct Feedback (deletion of "has been")
	19.	Hui's Direct Feedback (deletion of "been")
	20.	Zehao's Direct Feedback (deletions of words "recycle" and "of") 87
	21.	Ping's Direct Feedback (deletions of "have begun" and "the")

		Page
22.	Ping's Direct Corrections (deletion of "-ing")	88
23.	Min's Direct Feedback in a Comment	90
24.	Xin's Direct Feedback in a Comment (Google Document)	90
25.	Dong's Error Code Feedback	93
26.	Zehao's Paragraph Containing Seven Error Codes	94
27.	Ping's Error Code Feedback (pl.)	95
28.	Dong's Error Code Feedback (pl.)	95
29.	Hui's Error Code Feedback ("Part of Speech")	97
30.	Dong's Error Code Feedback (v.t.)	98
31.	Zehao's Error Code Feedback	99
32.	Dong's Metalinguistic Feedback	. 100
33.	Dong's Error Code Feedback (w.c. "learning")	. 101
34.	Dong's Error Code Feedback (w.c. "get birth")	. 101
35.	Xin's Metalinguistic Explanation	. 102
36.	Xin's Indirect Comment	. 104
37.	Lin's Comment with Metalinguistic Explanation ("use past tense.").	. 105
38.	Min's Indirect Feedback ("Use tense consistently")	. 106
39.	Lin's Comment without Metalinguistic Explanation ("Rephrase")	. 107
40.	Zehao's Comment w/o Metalinguistic Explanation ("Try Rewording")	. 108
41.	Hui's Comment without Metalinguistic Explanation ("What's this?")	. 109
42.	Min's Error Location Feedback ("name")	. 111
43.	Min's Error Location Feedback ("release")	. 111

CHAPTER 1

INTRODUCTION

As more and more international students are admitted to U.S. universities, many of whom are at the intermediate levels of English proficiency in need of extensive support in developing their language skills, many FYC instructors struggle with decisions on how much time to devote to focusing on language issues in their students' written texts. In some cases, the only language support that students receive in these courses is through written corrective feedback (WCF) as most instructors do not address language related issues through direct instruction. In the field of L2 writing, WCF is a practice of providing direct or indirect grammar feedback in students' texts. The effectiveness of the practice on student language development has been debated for almost two decades now after the publication of Truscott's (1996) paper in which he argued against grammar correction claiming that not only is it not effective but detrimental to students. These claims generated an interest in researching the effectiveness of different types of feedback on grammar correction on accuracy in student texts (e.g., N. Ellis, Sheen, Murakami, & Takashima, 2008; Ferris, 2006; Ferris & Roberts, 2001; Hartshor et. al., 2010; Sheen, Wright & Moldawa, 2009; Van Beuningen, De Jong, & Kuiken, 2008), and most findings of this research indicated a positive effect of WCF on students' accuracy.

After nearly two decades of research investigating whether grammar correction is effective or not, researchers have begun to shift focus from investigating the effectiveness of different WCF types on grammar accuracy to investigating how students engage with the feedback provided in their texts. In his epilogue to the special issue of *Studies in Second Language Acquisition* that focused on the topic of WCF, Ellis (2010) provides a

framework for investigating WCF. The framework identifies specific variables, such as individual and contextual, that have been found to affect students' engagement with WCF and, ultimately, student learning outcome. By proposing such a framework, Ellis emphasizes the importance of considering all of the components and exploring how they are related. The recent shift in research interest also places emphasis on generating insights that can provide more understanding of the learners and their learning process in order to contribute to the improvement of writing pedagogy. Such improvement can occur if we understand not just the potential of WCF in helping students improve accuracy, but also the role of the learners in interpreting and using feedback.

Previous research that attempts to provide such insights includes three small multiple-case studies by Hyland (1998, 2003, 2011) which examined how students engage with WCF provided by their instructors in English as a Second Language courses and two other studies focusing on factors that influence students' engagement (Ferris, Liu, Sinha, & Senna, 2013; Lee & Schallert, 2008). The findings of these studies, all of which were conducted in a naturalistic context, have shown that students' responses to feedback may be affected by individual, social, and contextual factors. In addition to these studies conducted in a naturalistic context, there are laboratory studies which focus on investigating how students process specific kinds of WCF. One of these studies compared the processing of reformulation feedback and editing symbols by student pairs (Storch & Wigglesworth, 2010) and two other studies examined students' meta-awareness of the reformulation feedback, one by individual students (Qi & Lapkin, 2001) and one by student pairs (Swain & Lapkin, 2002). Findings of these studies indicate that

learning from feedback is primarily influenced by not only depth of feedback processing but also students' attitudes toward feedback.

The goal of the current study is to contribute to this growing body of research and provide more insights into the nature of L2 writers' engagement with WCF and its potential for language development. In particular, the study aims at investigating how students process WCF and what they understand about the nature of the error. In addition to investigating the process in which students are engaged, the study also considers how various factors, such as students' beliefs about feedback and the context in which it is provided, influence students' engagement.

Statement of Problem

Despite all the insights on the effectiveness of WCF offered by previous research the question still remains what makes it effective for some students and not for others. From my own experience as a writing instructor as well as from anecdotal accounts of other instructors, I realized that there is much more we could learn about what makes WCF effective. While there has been a shift towards examining the formative potential of WCF and its role in improving students writing and language learning processes, there is little research that examines this potential in a naturalistic setting. The three studies (Hyland, 1998, 2003, 2011) that have investigated students' engagement with WCF outside of a laboratory setting provide crucial insights into the factors that may affect the effectiveness of WCF; however, these insights are based on students' self-reported data gathered during retrospective interviews with the students a day after their revision occurred. While retrospective interview is useful, it may be limited because some evidence of engagement may be omitted due to the nature of the data collection.

In addition to the need to provide more detailed insights about students' engagement with WCF, it may be useful to provide more fine-tuned distinctions of engagement. Previous feedback processing studies investigated students' engagement by examining the evidence of meta-awareness of the feedback they received as they composed or revised their text collaboratively with another student where students' processing of feedback was equated with their understanding of the feedback. However, it is important to make a distinction between what students do (or decide not to do) and what they understand to account for the type of engagement that would otherwise be disregarded but beneficial for learning.

Recently, much WCF research has focused on making connections between feedback and second language acquisition (SLA) theories with a focus on examining its effect on language development. Previous feedback processing studies mostly adopt sociocultural and interactionist theories, which may be why they focus their investigation on how feedback is processed collaboratively, in pair-discussion (e.g., Storch & Wigglesworth, 2010; Swain & Lapkin, 2002). However, most students are more likely to revise their texts individually without having the opportunity to discuss it with others; therefore, it is important to adopt a framework that allows to account for other, non-social, factors that may be relevant for language learning and does not exclusively emphasize the need for collaboration or discussion. The current study adopts a usage-based view of language learning, according to which language learning is derived from and largely influenced by language use and frequency of exposure to language (Bybee, 2006; Tomasello, 2001). In adopting the usage-based theory of language learning, the study is guided by the assumption that rather than largely thinking about WCF as a means

of providing opportunities to discuss it with others or notice gaps in their interlanguage, WCF may also be valuable for learners as it can draw their attention to form so that the learners can make connections between form and meaning, even if opportunities for discussion do not exist.

Lastly, as important as the laboratory studies that measured the effectiveness of one feedback type over the other have been, it is necessary to focus on examining WCF in the context in which students receive the feedback because in the context outside of a laboratory setting, factors other than the feedback itself may influence how the feedback is received and processed. Based on the findings of all of the previous studies I have reviewed, there is an indication that students and the context play a vital role in learning from feedback and that the potential of WCF may lie in students' ability and willingness to use it. The shift from examining the effectiveness of different feedback types and their impact on grammatical accuracy to examining how students engage with WCF is significant, and there is a need to provide more evidence in support of this shift. While much research exists on some of the factors, particularly on students' attitudes toward WCF or their feedback preferences, the questions of how and why their individual differences affect their engagement with the feedback in the specific context in which it is provided have not been explored in detail. Due to the growing number of non-native English speakers in FYC courses, there is a specific need to examine students' engagement with WCF in this particular context. By examining student engagement as well as factors that may influence it, the emphasis is placed on student agency—what students do and how they make decisions, as well as the conditions that shape it, which is

in line with the current shift toward examining the role that students and the context play in learning from WCF.

Overview of Chapters

In the chapters that follow, I present the background for my study, the methods I employed to gather data, as well as my analysis and discussion of the findings. In chapter 2, I define engagement and present the theoretical perspectives as well as relevant research that framed my study. More specifically, I discuss sociocultural and interactionist perspectives on language learning, which are the perspectives adopted in most previous studies of WCF processing, and the usage-based theory of language, which I argue allows us to expand our view of WCF and its potential. Chapter 3 presents the research design and my analytical framework. I first describe the student and instructor participants and my method for data collection. I then describe my approach to data analysis and explain in detail my coding procedures used to identify student engagement with WCF during revision as well as coding procedures of interview data used to identify individual and contextual factors that affect how they respond to feedback. I present the results of my analysis of student engagement with WCF in chapter 4 with the focus on identifying the pedagogical factors that affect it. In chapter 5, I focus my analysis on socio-contextual factors, such as grading policy and the availability of feedback in and outside of class, which may affect students' attitudes about the importance of grammar accuracy in their writing and potentially their engagement with WCF. In the final chapter, I provide a discussion of my findings and argue that for WCF to be effective, students need to be provided with guidelines on how to engage with it and be held accountable for making the revisions if WCF is provided. The final chapter also discusses implications

and future research directions that could further our understanding of WCF as a practice and the conditions that shape students' experiences with it.

CHAPTER 2

FRAMING THE STUDY

In this chapter, I first review relevant WCF studies which focused on investigating how students use and respond to feedback. Some researchers of studies that I review state directly that their objective was to measure engagement; other studies examine students' *processing* or *collaborative processing* of WCF with the focus on measuring *noticing*. After reviewing the relevant studies, I discuss how the term engagement has been used in previous research and I propose a common definition that could be used to study student engagement with WCF. In addition to drawing on previous studies investigating WCF, I review the work of R. Ellis (2010), who proposed a framework for examining both oral and written corrective feedback, which I believe is the most appropriate analytical framework for investigating students' engagement with WCF. Lastly, I discuss previous theoretical frameworks adopted to study engagement with WCF and argue that another theoretical perspective, namely the usage-based theory of language learning provides an additional framework for investigating WCF.

Review of Relevant WCF Studies

Studies of Student Engagement with WCF

Three case studies by Hyland (1998, 2003, 2011), each based on two participants, analyze how student engagement with feedback (e.g., revision strategies, discussing feedback with others, careful analysis of feedback, etc.) impacts feedback uptake.

Through the use of retrospective interviews with participants, Hyland found that most of them valued form-focused feedback and by reviewing students' revised drafts, she found that they attempted to correct many of the directly or indirectly corrected errors (62-89%).

of attempts). The exception was one participant, Maho (Hyland, 2011), who utilized only 10% of the form-focused feedback. The interviews with Maho indicated that she did not perceive grammar to be problematic for her and she rarely paid attention to feedback on grammar. However, she was described as a very motivated learner, who valued feedback on content and on her ideas. Interestingly, that same participant failed the writing course, not once but twice, due to issues with language related problems in her writing. On the other end of the spectrum, there were two participants (Hyland, 2003) who utilized most of the feedback provided, Liang attempting to correct 89% of errors with 86% of the revisions being successful and Keith attempting to correct 82% of errors with 75% of the revision being successful. Both of these participants indicated that form-focused feedback was very important to them and, as opposed to Maho, they believed in its potential to influence their language learning. Hyland concludes that the effects of feedback are largely influenced by students' willingness to process it, and their beliefs about its potential benefits.

A detailed analysis of Liang's and Keith's writing in Hyland's (2003) study, further indicated mixed results about their improvement in accuracy on the most problematic language areas (articles for Liang and sentence structure for Keith), which the teacher focused on once she identified them. The improvement was measured by the number of errors on in-class written essays (new writing) administered to students eight times during the semester. While Keith's improvement steadily progressed throughout the semester, Liang's progress was difficult to assess as the number of article errors fluctuated throughout the semester. The fluctuation in Liang's progress was explained in terms of the amount of attention the student paid to articles when writing, suggesting that

she was probably more "careful" about them in the beginning of the course and more "relaxed" toward the end, with a special attention paid to articles on the final, most important test of the semester. Despite Liang's complex case, and if we only consider the first and the last essay of the semester, it can be concluded that feedback did have a positive effect on the accuracy levels of these two participants and, as shown in detail in Hyland's (2011) study, students who were willing to actively engage with feedback did make satisfactory progress, while those who were not, as in the case of Maho, progressed very little.

Engagement with Different Feedback Types. Generally, processing of direct feedback does not require as much cognitive involvement as the processing of indirect feedback, which requires students to think about their errors in order to correct them. However, when it comes to the potential for learning from WCF, research does not show a clear advantage of one feedback type over the other. On the one hand, indirect feedback has been shown to be more beneficial as it engages students in problem solving and reflection, which is seen as necessary for long-term learning (Bitchener & Knoch, 2009). On the other hand, it is argued that direct feedback exposes students to the correct form allowing learners to internalize new knowledge about language (Chandler, 2003). Some researchers argue that the degree of explicitness of feedback, whether it is provided through direct feedback, written explanations, or during student-instructor conferences, is the "pivotal factor" (Sheen, 2010) for learning.

A study by Storch and Wigglesworth (2010) compared students' engagement with reformulation feedback and editing symbols (i.e. direct vs. indirect feedback) to see which feedback type has the most impact on uptake. By analyzing student pair

discussions of each feedback type and counting all language-related episodes, the researchers were able to quantify the amount of students' engagement with each type. Their findings indicate that students were more engaged when processing indirect feedback, i.e., editing symbols. Engagement with the indirect feedback included identifying the nature of the error and finding the appropriate correction; in contrast, while processing reformulations, students limited themselves to accepting the rewritten text and expressing their agreement. While the researchers reported that the indirect type of feedback led to more engagement, the internalization, or uptake, of that feedback was more likely to occur when the feedback provided matched the learner's goals and beliefs about feedback.

Other studies focused on investigating whether requiring students to discuss their WCF and offering opportunities to receive explanations has a positive effect on the learning outcome. For example, Bitchener, Young, and Cameron (2005) designed an experimental study to measure the effect of different feedback types on accuracy. While the researchers do not explicitly measure engagement, one of the two treatment groups was provided with the opportunity to engage with feedback during a conference with the researcher lasting 5 minutes. After determining the three most common errors that occurred on the pre-test, namely preposition, simple past, and the definite article, students in both treatment groups were provided with direct corrections targeting these error types in three subsequent writing tasks. The group of students who, in addition to receiving direct feedback, had the opportunity to discuss their errors and get additional explanations about them outperformed the group of students who only received direct feedback on the use of articles and simple past. However, the increase in accuracy on the

use of prepositions was not significantly higher than the control group, and Bitchener referred to Ferris' (1999) distinction of treatable and untreatable errors to explain it—unlike articles and simple past, the use of prepositions is not rule governed. It can be concluded that conferencing with students, which increased the level of students' engagement with feedback influenced their learning of the rule governed simple past and articles, but not the more idiosyncratic prepositions.

In a later study, Bitchener (2008) set out to measure whether the type of feedback provided to students on the use of definite and indefinite articles results in increase in accuracy over time. This time, an additional treatment group was added, and instead of the one-on-one conferences, students in one of the treatment groups received a minilesson. The three treatment groups included students who 1) received direct corrections, 2) received direct correction and written metalinguistic explanations, and 3) in addition to corrections and written explanations received a mini-lesson targeting article use.

Bitchener found that in comparison to the control group, which did not receive any treatment, all three treatment groups increased their accuracy scores and retained them on the delayed post-test which was administered two months after the pre-test. Moreover, the group that received the most explanations (written plus oral) increased their test scores more than the two other groups.

Bitchener hypothesized that the group that received direct corrections with written metalinguistic explanations would outperform the group that received only direct correction, but surprisingly that was not the case. Bitchener speculated that the provision of metalinguistic explanations was too limited to have any significant impact on students' performance. While it is not clear how the written metalinguistic explanations were

provided (e.g., margins or separate sheet of paper), I speculate that the reason for the lower accuracy score for the group with metalinguistic explanations might have been the fact that the explanations provided students with extra cognitive load while reviewing their feedback or possibly due to the students' inability to understand the comment. As both Bitchener et al. (2005) and Bitchener's (2008) studies show, to maximize the learning potential, it might be more important to consider engaging students with WCF by requiring them to discuss it with others. It might be that the additional engagement with feedback promotes noticing, which has been shown to be necessary for acquisition.

Studies Investigating Noticing. Just like the studies discussed above that focus on investigating how students' engagement with WCF affects uptake, studies investigating noticing focus on the effects of noticing on accuracy in the revised draft. Qi and Lapkin (2001) investigated two students' noticing of reformulation feedback. More specifically, the goal of the study was to investigate what language-related problems students notice while they first compose their co-written text and then when they compare their original text with the reformulation provided by the researchers to see if that noticing has any effects on output and students' subsequent writing. In an effort to measure noticing, the researchers asked the participants to verbalize their thoughts during the composing and comparing state, and they were recorded and later reviewed with the researcher. When analyzing the data, a distinction was made between perfunctory and substantive noticing, where substantive noticing meant not only commenting and verbalizing the difference but also stating the reason behind the change that occurred in students' reformulated text. The findings of this study indicate that noticing of languagerelated problems positively impacts students writing, as measured on the post-test. The

study also indicates that noticing was most effective when the participants demonstrated an understanding of the problem (substantive noticing) as compared with noticing and no indication of understanding (perfunctory noticing). Qi and Lapkin conclude that substantive noticing is positively correlated with students' improvement on their writing, which suggests that the quality of noticing is an important factor that affects the effectiveness of WCF.

Similar findings were reported in Swain and Lapkin's (2002) case study conducted with two 7th grade French immersion students in Canada, Nina and Dara. This study examined collaborative processing of feedback and the effects of the dialogue between the participants on feedback uptake. The study showed that collaboration is an effective method for stimulating noticing and engaging students with feedback and that noticing and engaging in a dialogue leads to uptake, as indicated on the post-test. While students noticed most of the differences between their text and the reformulated version, they were also shown to refuse some of the feedback, although rejecting the feedback was not shown to have an effect on uptake. In other words, even when students rejected the reformulation, they internalized the correct form due to discussing it with the partner during their collaborative sessions and with the researchers during the stimulated recall session.

Individual Factors Affecting Students' Engagement with WCF

Student engagement with feedback appears to be directly related to individual factors, such as learner's attitudes toward feedback, their beliefs, goals, motivation, as well as the relationships that they develop with the instructor. To date, very few studies of WCF have considered how these factors influence students' engagement with

feedback. When the students in Swain and Lapkin's (2002) study discussed above rejected reformulations, it was due to a mismatch between their and the instructor's beliefs about language conventions or due to the instructor's inaccurate interpretation of students' intended meaning, as they indicated during interviews. Dara also stated that the reformulations sometimes included words that were unfamiliar to them, and she stated that it would have been more helpful if someone closer to their own level reformulated their text. When Nina was asked about the reason for not accepting the reformulated version, she said that she did not think it was necessary and sometimes she did not understand why something was changed. She expressed that she would prefer to talk to the person who changed the text to learn why the change was made. This study indicates the importance of considering students' capability to understand feedback as well as the opportunities for students to discuss it with the instructor or peer.

The aforementioned study of Storch and Wigglesworth (2010) reported that when the participants questioned the type of feedback they received (direct feedback with corrections), they responded to it reluctantly without seeing the benefits of it. As a result, these participants showed very little gain as indicated on post-tests measuring accuracy. The authors concluded that learners' attitudes towards feedback affects not only whether and how learners respond to the feedback provided, but ultimately whether there is any long-term learning as a result of it.

Hyland's (1998) case study also shows a strong correlation between attitude and engagement. For example, Samorn utilized most of the feedback provided by the instructor (82%) and believed that error correction was necessary for her to improve writing. However, her desire for being corrected was so strong that when her expectations

were not met (i.e., not all errors were corrected), she was dissatisfied with the feedback and that affected her attitude toward revision. She also stated to be significantly affected when the feedback she received was mostly negative without any encouraging comments, which made an impact on her engagement with feedback (e.g., delayed revision of draft). While her attitude did not seem to affect her overall percentage of correct revisions, as compared to Keith or Liang from Hyland's other case studies, the negative feedback, which mostly related to her grammar, resulted in her losing confidence as a strong writer (which she had before taking the course) and motivation to use the feedback that was provided. As a result, Samorn even changed her major to one which did not require extensive writing. The analysis of this case provides a complex nature of the corrective feedback, which even when desired, may negatively influence students' attitude and, consequently, their future as writers.

Hyland's (2011) study indicates that willingness to engage with WCF feedback, which is largely influenced by students' learning goals and motivation, influence how successful students are in their revisions. Students who demonstrate strong learning goals and high motivation were more successful than students who were found on the opposite end of the spectrum. Being able to learn from feedback requires certain commitment and motivational effort, intrinsic interest in language learning, and positive self-efficacy beliefs (Kormos, 2012). Lack of strong goals, interest, and belief in one's abilities is unlikely to lead to engagement with the writing task and in the cognitive processing involved in the revision process. Motivational intensity also influences how much attention students pay to feedback and their further involvement in text revisions.

Socio-Contextual Factors Influencing Students' Engagement with WCF

Social and contextual, or situational, factors may be responsible for shaping the learning context and affect how students respond to feedback. According to Hyland and Hyland (2006), contextual factors are related to the institution and writing programs and the interaction between the students and instructors in a given course. Other factors related to the context of learning might include socio-political issues, which can affect student-teacher relationship, instructors' attitudes toward students, institutional attitudes towards L2 writers, and writing program philosophies/policies about feedback. Most of these factors have not been considered in research studies investigating WCF, and we lack data showing the extent to which these factors impact student revision (Hyland & Hyland, 2006).

A recent study by Ferris et al. (2013) examining individual and contextual factors contributing to students' ability to benefit from feedback focused the investigation on first-year college students who were placed in developmental writing courses. The researchers set out to study one particular student population, namely U.S.-educated children of first-generation immigrants, or "Generation 1.5." The overall findings of the study show that students were affected both positively and negatively by the context in which they received WCF. Being placed in developmental writing courses with traditional ESL students and required to pass timed writing tests in order to continue their college education made many of these students uncomfortable and anxious and less engaged with their writing tasks, but for some students, the situation made them seek out more help and pay extra attention to feedback they received. A close analysis of two of the study participants, Mary and Tony, revealed that they exhibited very different

attitudes as a result of the context they were placed in. On the one hand, Mary, who was not very confident in her writing abilities and was aware of her limitations, was found to be highly motivated and willing to engage with the feedback she received, which helped her improve her writing score considerably. On the other hand, Tony, who appeared to be overly confident in his writing abilities and believed to have been placed in the developmental writing course unfairly, was found not to engage with the feedback much and progressed much less than the highly-motivated and appreciative Mary.

Student-teacher relationships also appear to play a role in WCF uptake. A study by Lee and Schallert (2008), which was based on two case-study participants, showed that the participant who developed a trusting relationship with the teacher used the provided feedback and, consequently, improved his drafts. The participant who was not able to develop a trusting relationship with the teacher did not benefit from the feedback that was provided. A trusting relationship was defined as having high regard for the teacher's competence and appreciation for the feedback. The development of a trusting relationship was shown to be a complex process influenced by several factors, such as the quality of the initial text produced by the students, the initial teacher assessment, and the tone in which feedback was delivered, and student and teacher expectations. The authors concluded that feedback and the revision process is highly personal and emotional, and that a supportive, appreciative, reciprocal, and trusting relationship appears to play a large role on student improvement on their drafts.

Definition of Engagement

The term engagement in the context of empirical studies discussed above has not been clearly defined, but in many studies it means *processing of feedback*. Depending on

one's theoretical orientation, the term may evoke different connotations or significance for language learning. In some studies examining student engagement with WCF, the emphasis is placed on the level of *actions taken*, such as discussing feedback with others or keeping a language log of all errors indicated through feedback; in other studies, the emphasis is placed on the level of *meta-awareness* of the feedback received or the error it addressed (depending on the type of feedback that was examined, i.e., direct or indirect). Based on my review of the previous studies examining student engagement with WCF, I define engagement as an *act* involving *cognitive processing*. Such definition may be used to describe a physical action taken, such as checking a dictionary, or a cognitive activity, such as deliberating an error and providing an explanation, which may or may not result in showing evidence of meta-awareness.

Researchers attempted to distinguish between the different levels of engagement and argued that the depth of processing (i.e., processing with or without meta-awareness) influences language development, though it is not clear how deep the processing needs to be for learning to occur. In the studies of collaborative processing of reformulation feedback, this processing is measured by examining *language related episodes* (LREs) between students engaged in a collaborative dialogue discussing WCF (e.g., Storch & Wigglesworth, 2010; Swain & Lapkin, 2002), which are then analyzed to record what students noticed and how much they understood what they noticed as they processed their reformulated text. For example, in Storch and Wigglesworth's (2010) study, where LREs were identified as student talk during which they focused on language (e.g., reading the reformulated text aloud, deliberating over the reformulation, or discussing revisions), the researchers divided the LREs into two categories: limited engagement vs. extensive

engagement. The extensive engagement included discussions of feedback that contained explanations, comments, or any other evidence of meta-awareness, such as noticing the change and verbalizing it, whereas the limited engagement included episodes in which participants only read or acknowledged the feedback.

In Qi and Lapkin's (2001) study, which investigates what students notice when they compare their text with the reformulated version, the researchers made the distinction between more and less extensive *noticing* as perfunctory versus substantive (Qi & Lapkin 2001). Perfunctory noticing was defined as noticing without meta-awareness, and substantive noticing was noticing with evidence of meta-awareness which was manifested in verbalizing reasons behind the change that occurred in a student's reformulated text. Although this study did not measure engagement per se, the analysis of noticing was done very similarly to Storch and Wigglesworth's (2010) analysis of engagement in that both noticing and engagement were considered as an activity that can stimulate students to think about the error or the feedback provided.

This perspective on engagement is described in Swain's (2006) discussion of the term "languaging." Swain uses the term "languaging" to denote the use of language as a cognitive activity, or an activity which mediates thinking (i.e., cognition). Swain does not define engagement per se; in fact, she uses terms "engage(ment)" and "languaging" in one phrase, as in "students engaged in languaging." It can be inferred that being engaged in languaging is a specific type of engagement, one during which students use language to make meaning. In Swain's words, languaging means "producing language in an attempt to understand – to problem-solve –to make meaning (p. 96). So, to put it in the context of WCF studies, students might be engaged in languaging when they discuss their

use of language in their written text by providing explanations of why something is or is not correct. This definition of engagement may not always be applicable as students most often engage in revision individually and they do not verbalize their thoughts during the process. However, it is useful to consider languaging as a construct when examining student engagement with WCF to envision new possibilities for instructors to engage students with the feedback they provide.

Lastly, Hyland (2011) uses the term engagement to signify "active engagement" and she often discusses it by making references to the depth of processing theory, according to which learning occurs when learners are involved in interactions that allow them to reach deep levels of cognitive processing (R. Ellis & Fotos, 1999). As explained by R. Ellis and Fotos (1999), the theory draws on the insights from information processing theory, in which memory is divided into sensory registration, and short- and long-term memory. The theory was later revised and it was proposed that memory "is less of a function of different types of store and more a function of the nature of processing in which people engage when faced with new material in the input" (R. Ellis & Fotos, 1999, p. 26). With that said, Hyland's (1998, 2001, 2011) case studies examine students' engagement with feedback with the focus on *actions*, such as keeping a log of grammar errors or discussing WCF with others, of individual students taken to revise their text based on the feedback they received, which is different from the focus in feedback processing studies.

To my knowledge, the only definition of engagement that has been directly proposed was put forth by R. Ellis (2010) in the article laying out the framework for investigating oral and written corrective feedback. R. Ellis defines the term *engagement*

as learners' *response* to the feedback they receive. While this is a reasonable definition, I believe that in the context of studies investigating engagement with WCF, it may be more precise to define it as an act involving cognitive processing because *response* might have been traditionally understood as student correction, or revision. Student response to WCF has also been discussed in terms of their emotional reaction to feedback they received. Defining engagement as an *act that involves cognitive processing* might be more suitable as it can be used to describe a physical action taken, such as checking a dictionary, or a cognitive activity, such as deliberating an error, but neither of them has to involve an actual error correction, or *response*.

Framework for Investigating Engagement

In his discussion of engagement with WCF, R. Ellis (2010) acknowledges that how learners engage with feedback depends on a variety of factors. In his framework for investigating CF (see Figure 1), engagement is seen as a major factor contributing to learning outcomes, which is affected by individual differences (e.g., student beliefs and motivation) and contextual factors (e.g., setting in which the feedback is provided), and he proposed that engagement can be studied from three different perspectives: cognitive, behavioral, and affective. The cognitive perspective is concerned with how students respond to feedback (e.g., student ability), the behavioral perspective with ways they revise their texts (e.g., strategies employed), and the affective with students' beliefs and attitudes and how they influence their response. My review of the previous studies, most of which were conducted prior to R. Ellis (2010), indicates that they investigate engagement with WCF through one or more of the perspectives proposed by R. Ellis.

That is, Hyland's (1998, 2003, 2011) case studies would fall under the behavioral as well

as the affective perspective because they focused on student actions as well as their beliefs and attitudes; Storch and Wigglesworth's (2011) and Qi and Lapkin's (2001) and Swain and Lapkin's (2002) feedback processing studies focus on examining noticing and meta-awareness, which is the cognitive perspective.

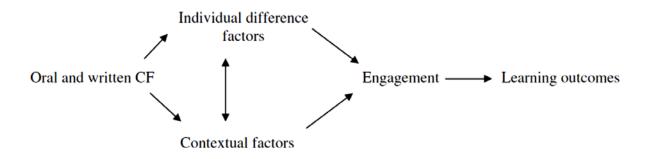


Figure 1. A componential framework for investigating CF.

In the current study, I analyze student engagement with WCF through all three perspectives: 1) the cognitive perspective by examining error awareness, 2) the behavioral perspective by examining the process in which they are involved during revision, and 3) the affective perspective by interviewing students and discussing their beliefs and attitudes toward WCF and the context in which it was provided. In contrast to previous studies investigating student processing of WCF, I analyze feedback processing (behavioral perspective) and student cognitive involvement (cognitive perspective) separately to gain in-depth insights about the process through different perspectives and avoid conflating the terms engagement and awareness.

Previous Theoretical Frameworks Adopted to Study Engagement with WCF Previous studies of student engagement with WCF used second language acquisition (SLA) theories, mostly sociocultural and interaction, as a theoretical framework to explain how WCF facilitates the learning of grammar.

Sociocultural Theory

Most studies that investigate WCF, and which explicitly adopt a theoretical framework in their study, adopt the sociocultural theory (e.g., Nassaji & Swain, 2000; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002). From the perspective of the sociocultural theory, language is used between language users mainly as a problem solving tool (Lantolf, 2000) and its development is triggered by a dialog with others. Language learning is viewed as a collaborative activity during which help is gradually provided through the process of *scaffolding* until the learner internalizes the knowledge and is able to accomplish a task independently. Such help is seen as most beneficial if it is provided within the Zone of Proximal Development (ZPD), which is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (Vygotsky, 1978, p. 86).

The key influence of this approach for studying WCF is that L2 learners can benefit from WCF when they have a chance to discuss it with others, which is why most studies of WCF processing focus on investigating student pairs discussing feedback as such discussion is believed to provide the opportunity for learners to use language and deliberate linguistic forms. Moreover, WCF can provide opportunities for learning if proper scaffolding is provided for learners while they engage with a more proficient peer

or the instructor. However, as Swain (2005) explains, the engagement of students of similar proficiency levels in "problem solving" and "knowledge building" allows learners to "stretch" their interlanguage.

Other WCF researchers working within this approach point out that writing is a social process and that scaffolding, which can be provided in the form of corrective feedback, can push development (e.g., Brooks & Swain, 2009; Lantolf & Thorne, 2006; Nassaji & Swain, 2000; Storch & Wigglesworth, 2010). As stated by Aljaafreh and Lantolf (1994),

Effective error correction and language learning depend crucially on mediation provided by other individuals, who in consort with the learner dialogically co-construct a zone of proximal development in which feedback as regulation becomes relevant and therefore can be appropriated by learners to modify their interlanguage systems. (p. 480)

While writing (and language learning) as a social process emphasizes the role that others play in our learning, learners are not viewed as passive receivers of knowledge. The key concept here is co-construction, which indicates equal contribution to learning.

Mediation, or the facilitation of learning, can occur when the student and the instructor act as collaborators, which allows students to exercise their agency (Aljaafreh & Lantolf, 1994). Once students give up their agency, they may become disengaged from the learning process.

But what if students do not feel like agents in language learning? What instructors do and how they deliver knowledge, in this case WCF, will have an impact on students' agency and it can either create opportunities for students to foster it or discourage it.

Students can become discouraged if instructors are seen as authorities who are unlikely to be interested in students' response to their feedback or acknowledge the possibility of mistakenly correcting students' grammatical errors. There is a fine line between guiding students' learning and appropriating their text. In the context of WCF studies, appropriation is not seen as wrong if it is a strategy undertaken by a student, especially a student at lower proficiency level, as he or she develops more confidence with grammar (Tardy, 2006). However, when students view WCF as overriding their decisions without the possibility to discuss other possibilities or misinterpretations, appropriation of feedback becomes the appropriation of student text by the instructor, which can discourage students from considering WCF as a suggestion that may or may not be accepted.

The Interactionist Perspective

From the interactionist perspective, the main drive for learning is the interaction itself. Communicating with speakers of the target language is believed to provide opportunities for learning as it has been shown that during interactions with language learners, native speakers employ a variety of communication tools, such as repetitions, comprehension checks, or clarifications requests used to *negotiate* meaning. From this perspective, WCF is seen as an opportunity for language learners to engage in interaction and collaboration during which learners engage in negotiation of meaning, which is assumed to facilitate learning (Long, 1983).

In addition, during such (oral) interactions, learners have to pay attention to form and can *notice the gap* between the *output* and *input*. The notion of *noticing* (Schmidt, 1990) in SLA research is important to consider when studying engagement with WCF as

it is argued to be essential in facilitating L2 development (Long, 1996). The interaction between a student and the instructor or a peer discussing the feedback is believed to facilitate *noticing* and encourage production, or learner *output* and, as proposed by Swain (1985) in the Output Hypothesis, learner output is necessary in language learning as it leads to triggering changes in learners' interlanguage (Selinker, 1972). In this framework, language learners are believed to form hypotheses about grammar based on the input they receive, test these hypotheses in their output, and revise them based on the provided feedback. However, as pointed out by Swain (2006), the notion of *output* may be limiting in a sense that it evokes the idea that learner production is fixed rather than active and subjected to change as it occurs. This may be why Swain used the term "languaging" to denote the meaning of language production as a cognitive activity during which meaning is made.

Researchers investigating engagement with WCF who work within this framework argue that WCF is a 'noticing facilitator' (e.g., Hyland, 2011; Qi & Lapkin, 2001), which can lead to the destabilization and restructuring of the learners' interlanguage. If WCF is argued to be a noticing facilitator, it is important to fully understand the role of noticing in learning. Schmidt (1990) proposed that "noticing is the necessary and sufficient condition for converting input into intake" (p. 129), where noticing is not a simple act of merely seeing or hearing something, but an act which involves *conscious registration*. He makes a distinction between noticing and understanding, or meta-linguistic knowledge, which he believes to be a higher level of awareness. Schmidt's (1990) Noticing Hypothesis is often used to argue that learning cannot occur without noticing and, in fact, this appears to be his main argument.

However, this hypothesis was slightly modified in Schmidt's (1994a) article in which he proposed that "it may be wiser to replace zero-point claims (no learning without noticing) with a modified hypothesis that more noticing leads to more learning (Baars, 1988)" (p. 19). While it appears that Schmidt reserves some rights to claim that it is possible for learning to occur without noticing, most recently, Schmidt (2010) proposed that "noticing is necessary for SLA, and that understanding is facilitative but not required (p. 725). It should be noted that Schmidt (2010) acknowledges the possibility of implicit, i.e. without noticing, learning by citing studies in the area of statistical learning (discussed below), where language development is seen as the passive absorption of statistical regularities in the environment unconsciously tallied by learners. In the end, Schmidt (2010) maintains that while implicit learning is possible, it "does not mean that the learning takes place without awareness (self-instruction) at the point of learning" (p. 5). I should also emphasize that the "passive absorption" of statistical regularities can only be possible if learners are exposed to them in a meaningful context.

Usage-Based Theory of Language Learning

Rather than rejecting the previous theoretical frameworks used to study engagement with WCF, I draw insights from the usage-based theory to further our understanding of the role of WCF in language development. Adopting the sociocultural and interactionist frameworks to investigate *engagement* with WCF may be the most applicable if we view engagement as the *interaction* between language users, or a *social process* involving two or more individuals. However, if we accept the definition that I proposed above that, at least in the context of studying WCF, engagement as *an act*

involving cognitive processing, other theories of language learning, such as the usage-based theory, are as applicable.

Usage-based theory assumes that language emerges from the interaction between language processing and cognition. This means that language is a (by-) product of language processing (Bybee, 2006), rather than (only) social context and interaction, as assumed by the sociocultural and interactional perspectives. It also means that we may not be specifically equipped with a *language acquisition device* or a *black box*, as posited by the Chomskian perspective, but that we use our cognitive abilities when we process and produce language, just like when we learn other things, such as riding a bike, which may not only require our explicit attention, but is also more difficult to learn in adulthood. Tomasello (2008) reduced this approach to two fundamental premises: 1) meaning is use, and 2) structure emerges from use (p. 69). Children acquiring a language first learn to decode people's intentions from context (intention-reading) and then recognize patterns in the language they hear around them (pattern-finding). These cognitive abilities allow children to acquire constructions when they process the language they receive in input.

The Origins of Usage-Based Theory

The usage-based theory has its origins in cognitive linguistics and construction grammar (Goldberg 1995, 2006). A significant development in cognitive linguistics was that humans learn language by organizing things they perceive in the world around prototypes. It was observed that we learn basic categories, such as *bird* or *apple*, before learning their superordinates *animal* and *fruit* and their subordinates *Eagle* and *Fuji*. In addition to learning categories of things, we also learn to express our experiences, so the

prototypical nouns we learn first are then used to describe their state, location, movements, etc. This organization and productivity of language is a result of "analogies between the form and/or meaning in a structured inventory of constructions" (Ibbotson, 2013, p. 256). In other words, how we combine the words depends on how we categorize the world around us, and how we learn to combine them depends on abstract linguistic schemas, or constructions (Tomasello, 2008), which humans acquire from input.

According to Goldberg's (1995, 2006) Construction Grammar, grammar is composed of constructions which are pairings of form and function. These pairings are part of the inventory, or database, which stores ways in which any given language combines words to express meaning. The way constructions are stored in our mind varies depending on *usage*, which represents the cornerstone of the usage-based approaches to language learning. The focus on constructions and experience implies that language cannot be separated into different units of language, but that form should always be connected to meaning, grammar to lexis, meaning to context, or structure to usage (N. Ellis, 2013).

Learning of Constructions

As stated above, grammatical constructions are pairings of form and function. They are believed to be learned during language processing episodes, i.e. "the participatory experience of processing, comprehending and producing language" (N. Ellis & Cadierno, 2009, p. 129), by making connections between form and meaning and seeing patterns of where specific meanings belong in a sentence. A significant observation from child language acquisition is that children do not just learn words and then combine them to form sentences based on "rules" they have acquired from input, but in addition to concrete words, they learn plural or past tense morphemes, fixed phrases, such as *That's*

mine, and constructions, such as Where's the X? (Tomasello, 2003). Children acquire these words and constructions from being exposed to "concrete exemplar material, encountered in real-time linguistic interaction" (Eskildsen, 2008, p. 336) and, simultaneously, they learn patterns of usage. These patterns are later abstracted and used with different words to express other meanings based on children's communicative needs.

Contrary to the poverty of the stimulus theory (Chomsky, 1980), children are believed to be exposed to all the grammar constructions that they need to be able to extract patterns. According to the constructionist framework, the fact that children do not hear all the utterances that they are able to express is evidence that they are able to extract patterns from the constructions that they are exposed to, and not due to the setting of principles and parameters, as posited by Chomsky. Children are exposed to a variety of different constructions, such as constructions with the same verb (e.g., *Give it to mommy*, *Give it to her*, *Give it to your sister*) and constructions with other verbs in their *verb island*, i.e., verbs of the same type (e.g., put, move, push, etc.) and they start to observe patters and abstract meaning. Rules, principles, parameters, constraints, and features "simply do not exist in the minds of speakers of a natural language" (Tomasello, 2003, p. 100), although they may be "formal devices of professional linguistics" used to explain differences between languages.

Learning of constructions is item-based and it progresses from simple formulas to abstract constructions (Tomasello, 2003). As explained by Tomasello, this means that in the initial stages of learning, children use highly concrete utterances, such as *Kick X*, where the X is understood as something that can be kicked. These initial utterances

slowly proceed to being more abstract (e.g. *That's mine*). Although research on the process on how exactly children proceed from the concrete utterances to more abstract constructions is limited, the current proposal is that they begin to recognize patterns which they extract from adults' speech using the pattern-finding skill of analogy, which can be thought of as a skill that allows children to categorize similar things together. Children also use the skill of intention-reading to distinguish the function of the different elements in a larger structure they hear. In other words, the child first learns to recognize a particular meaning that is expressed with a particular linguistic pattern (construction). The significance of using these skills over other means of acquiring a language is that in this perspective, children begin their language learning starting with complex and abstract structures of speech which is situated in a meaningful context, rather than learning language in a linear way from most simple to more complex.

Construction Frequency

Frequency of encounter of constructions is believed to be the leading factor in acquisition (N. Ellis, O'Donnel, & Römer, 2013). It is argued that language learning is a statistical issue and more exposure to "useful exemplars" provides more opportunities to acquire language. For the construction to be acquired, first and foremost, it has to be encountered frequently as frequent exposure to exemplars allows the learner to make generalizations and inferences about the language being acquired. N. Ellis (2013) explains this process in the following way:

Frequency of usage determines availability of representation according to the power law of learning, and this process tallies the likelihood of occurrence of constructions and the relative probabilities of their mappings between aspects of

form and interpretations, with generalizations arising from conspiracies of memorized utterances collaborating in productive schematic linguistic constructions. (p. 203)

N. Ellis explains that, in essence, "language learning is estimation from sample," (p. 203) and for the language system to emerge, it takes the collaboration of the memories of the learner's entire history of language use and abstracting the regularities within them.

When language usage is measured, as in N. Ellis et al.'s (2013) study, it is found that it is incredibly patterned and it follows a Zipfian distribution - the type/token frequency. Token frequency determines how often a word or a construction occurs in a language, whereas type frequency determines the abstractness, or schematicity, of the encountered construction (N. Ellis, 2012; Tomasello, 2003). According to Zipf's law of 1935, the highest frequency words account for the most linguistic tokens, or occurrences of those words in a language. N. Ellis and Ferreira-Junior (2009) show that learners first acquire the most frequent, prototypical and generic exemplars and structures (e.g. passive construction). In a cross-linguistic study by Gordon and Chafetz (1990), it was found that the age at which children acquire passive construction depends on how frequently they hear it at an early age. English speaking children are typically exposed to passive construction at a later age (4 or 5 year old) than children learning to speak languages, such as Inuktitut or Zulu, where passive construction is more frequent and salient. Tomasello (1999) designed an experimental study in an attempt to test whether Englishspeaking children can produce passive construction if they are exposed to it frequently at an earlier age. He found that 90 percent of 3-year old children who interacted with adults who used passive constructions frequently during their 30-minute interaction, started to

use passive construction. This finding seems to suggest that rather than the developmental readiness that is claimed to drive language learning and which determines the time of acquisition of certain language structures, it is the frequency at which they occur in the language being used around language learners.

L2 Development and the Role of WCF

From the perspective of L2 development, researchers working within the usagebased approaches acknowledge that L2 learning differs in important ways from learning one's native language (e.g., Cadierno & Robinson, 2009; N. Ellis & Cadierno, 2006; N. Ellis, 2013). This process involves overcoming not only learners' L1 "biases" but also the knowledge about the world they possess. Adult L2 learners possess conceptual knowledge of the world that young children who are learning their first language do not have, so they may not need to be as focused on the language they hear as they are able to understand much of what they hear using other cues and rely on language less. Adult learners who are used to learning explicitly may treat language as another kind of knowledge that can be learned by problem-solving and deduction, skills that young children are only beginning to develop. Also, young children are immersed in their natural environment and in situations that demand the use of language whereas adults are able to rely on their first language in cases they need to which may result in limited language development. Lastly, learning a second (or any additional) language is more complex than learning the first in that L2 constructions have to compete with L1 constructions and learning involves restructuring the existing language system and learning new form-meaning mappings (N. Ellis & Cadierno, 2009).

Based on the differences outlined above, the process of learning (any learning) in adulthood is often affected by learning effects, such as overshadowing and blocking. In the context of language learning, both of these terms refer to how learners' language experiences shape their attention to language cues (Kruschke & Blair, 2000). That is, our attention is being drawn away from the less salient cues used together with the more salient cues (N. Ellis, 2006). A low salience cue, such as an inflection –s is overshadowed by its more salient predictor of plurality (e.g. number) or third person singular (e.g. John), and over time, it can result in blocking, or "automatically learned inattention" (N. Ellis, 2006, p. 178). So, for L2 learners, the inflection -s in two apples is likely to be overshadowed by the expression two, which would be seen as a stronger predictor of plurality. Past tense marking -ed would have the same effect; once children acquire a specific way to express past time by words, such as yesterday, or a year ago, as in Chinese, these tense markings become salient and reliable. When exposed to a language that, in addition to the familiar marking, uses the morphological inflections –s or –ed, as in English, learners do not perceive the new inflections as crucial as they appear redundant; therefore, learners pay attention to the grammatical cues that for them appear to be stronger predictors of X (e.g., time or number). In other words, L2 learners may be experiencing a "blinding" effect due to their previous language experiences.

WCF within the Tenets of the Usage-Based Theory of Language Learning

When we consider WCF within the tenets of the usage-based theory, it becomes apparent that it has the potential to positively impact language learning as it can aid students to pay attention to language form. In general, one of the benefits of WCF is that it can provide students with "sample data" that they need in order to be able to "tally the

likelihood of occurrence of constructions." When an instructor corrects students' errors directly, the students are exposed to the target form or the appropriate word and are expected to use it in the revised draft. As frequency at which students use language is central under this approach, WCF which leads to engagement with the target language has the potential to increase the frequency of use, provided that students choose to incorporate the instructor's feedback into their revised paper and pay attention to it in context, not an abstracted noticing of changes made as could be the case when students receive direct corrections without analyzing them in the context of the sentence.

Research in various fields, such as cognitive and science and neuropsychology, came to a conclusion that explicit and implicit knowledge jointly influence the processing of new stimuli (MacWhinney, 1997), and it is the interaction of the two knowledge systems (rather than reliability of one on the other) which is central for learning. N. Ellis (2005, 2008) explains that language users mostly rely on implicit knowledge, but in cases of communication breakdown when the attention is drawn to specific gaps in knowledge, language learners fall back on explicit knowledge. It is often during the communication breakdown that learners become conscious about gaps in knowledge needed to accomplish the task and can apply their knowledge about the language.

While the communication breakdowns that Ellis refers to occur in oral contexts, they can also occur in written contexts when the reader does not understand the writer's intended meaning. Although oral feedback is more immediate, learners have less time to analyze it and sometimes may not even notice it. When WCF feedback is provided in students' texts, the implicit and explicit knowledge have the opportunity to interact and students may be more likely to internalize new rules. As mentioned earlier, though, rules

of language (from phonology, through syntax, to discourse) are patterns that are extracted from learners' analysis of the features of the language to which learners are exposed, but *teaching* rules is unlikely to have a positive effect. However, exposing students to rules through the use of WCF on errors that students made in their own writing may be more effective than teaching rules outside of such context. Upon reflection, it may lead to the formation of a new knowledge as well as the realization of the gap that exists in the learner's interlanguage system. However, it is important to emphasize that some "reflection" has to be part of this process, as looking at the correction provided by the instructor without analyzing them in the context of the sentence is not likely to have any effect on learning.

From the perspective of usage-based theory, WCF is likely to have positive effects on learning as it 1) provides students with "sample data," 2) engages students in language use, and 3) provides opportunities for their implicit and explicit knowledge to interact. In order for learners to overcome their L1 biases, learners need many hours of engagement with language to achieve native-like fluency, and there is nothing that can be used as a substitute for this. This approach not only considers age as a factor contributing to difficulties in attaining native-like fluency for L2 learners but also considers the previous knowledge which we acquire about the world and our native language. While age is a factor, it can be overcome by increasing frequency of language use which can "allow estimation procedures to optimize induction" (N. Ellis, 2009, p. 153) and attention to the more salient features of language that would otherwise be blocked from being acquired.

Unlike children who appear to learn language without paying attention to it, L2 learners need to attend to language and notice the gap between input and output in order to learn it. The argument that children acquire language incidentally, or *implicitly*, without paying attention to it (Chomsky, 1975) could be questioned, as one can argue that their attention is drawn by their care takers when they are being corrected indirectly (e.g. recasting), or asked for clarification, in which case a child is given a clue that what was said had not been understood and needs to be expressed in another way. Children indeed are not taught rules and they have been shown to ignore corrections provided by others (McNeill, 1966), but this does not automatically mean that they acquire language without attention or awareness. The proposal that language needs to be attended to and forms need to be noticed in order to acquire language appears to fit well within the usage-based approach to language learning.

It is important to emphasize that noticing (i.e., attention and awareness) does not mean *understanding* of rules, which would conflict with the assumption that language develops by tallying the regularities within it, as opposed to learning the rules. Those regularities need to be noticed in a meaningful context, however, and since adult L2 learners do not attend to language the same way that children do due to learning effects, such as overshadowing and blocking as discussed above, drawing their attention to language constructions is likely to benefit them. In order for this approach to facilitate language learning, student attention should be drawn to language that is meaningful to allow learners to develop associations between form and meaning (Doughty &Williams, 1998; Long, 1991).

Conclusion

The review of the previous literature indicates that studies examining engagement with feedback adopt a limited range of theoretical frameworks. The desire to adopt the sociocultural and interaction approaches to studying engagement with feedback is understandable considering that feedback is aimed at a problem that a learner has to solve and it can lead to interaction if students or a student and a teacher discuss it. However, it might be also useful to consider engagement with WCF in light of the usage-based theory of language development because the sociocultural and interaction theories do not address factors, such as the role of exposure and frequency in language learning.

Based on the research investigating factors that impact student engagement with WCF, feedback appears to lead to more engagement when it matches students' expectations and when students have strong interests and motivation to learn from feedback. Feedback type also appears to play a role as well as the context in which it is given. Different types of feedback have been shown to provide different opportunities for engagement, with the indirect feedback being found more engaging than the direct feedback. However, it may also be argued that students who receive indirect feedback might not be capable of determining if the changes they make are correct and it is not clear if the cognitive engagement required to process indirect feedback outweighs this disadvantage. Lastly, contextual factors can influence the extent to which learners make use of the learning opportunities offered by WCF. Since non-social factors, such as depth of feedback processing and students' attitudes toward feedback have been shown to influence learning from feedback, it is important to investigate the reasons that influence both the depth of processing and students attitudes.

CHAPTER 3

METHOD

The primary goal of this study is to provide a better understanding of how students engage with feedback and how various factors, such as individual, social and pedagogical, may influence their engagement. A qualitative, multiple-case study, research design was employed to investigate these issues. The case-study design seemed suitable for my questions which required careful examination of individual students' revision of each error indicated by WCF. Such research methods are also in line with the current shift in research on WCF to generate more in-depth insights about the nature of students' engagement with WCF and factors that influence it.

Research Questions

As I immersed myself in studies on WCF, it became clear to me that what was needed to advance the field of L2 writing in the area of WCF was not more studies trying to prove its effectiveness, but studies that can show the reasons why WCF is or is not effective. I also came across a small body of research that suggested that the effectiveness of WCF depends on whether students engage with it or not, so my research questions grew out of the need to provide more insights about student engagement with WCF. Since engagement, as defined in the study, does not guarantee that students make revisions in response to the instructor's feedback, I thought it was important to examine students' depth of engagement separately by focusing not only on what they do but also on whether the students' engagement leads to noticing and/or understanding of the nature of the error.

In addition to examining how students engage with the feedback provided by their instructors and what they notice, I sought to learn how student abilities and other external factors may influence their engagement. I thought it was also important to gain insights about student engagement with WCF from their instructors hoping that they could provide more information about the context and substantiate my own observations.

Therefore, my study was guided by the following research questions:

- 1. How do students engage with different types of WCF during the revision process?
- 2. Does engagement lead to understanding of the nature of the error?
- 3. How do individual and socio-cultural factors affect students' engagement with WCF?

Context of the Study

The study was conducted at Arizona State University (ASU) during Spring 2014 in the naturalistic context of the first-year composition (FYC) courses, which is a context in which no previous studies on student engagement with feedback had been conducted. The data was collected from students enrolled in the first-year composition (FYC) courses, WAC 107 and ENG 107 Stretch. Both of these courses are designed specifically for non-native language speakers, who may or may not be international students. However, the majority of students in these courses are international students from countries, such as China and Saudi Arabia. These two courses happen to be courses in the "stretch" program, which give students an extra semester to complete the work equivalent to a regular section of FYC for non-native English speakers. The completion of both WAC 107 and ENG 107 is equivalent to completion of an ENG 101 course, and students

who earn a grade of C or above continue to ENG 108 (equivalent to ENG 102). In addition, students in the stretch program complete both courses with the same instructor to provide students with continued support of the instructor who is familiar with their specific needs.

The Writing Programs at the university supports process-centered grading, which places emphasis on students' writing development over the course of the semester, and which does not penalize students (both first and second language writers) for issues related to grammar. According to the Standard Writing Programs Policy regarding grading,

The Writing Programs Mission supports grading that is process-centered rather than product-centered. Neither individual paper grades nor final course grades should be based on grammatical issues. Under no circumstances should students fail Writing Programs courses solely on the basis of grammatical issues. (Grammatical issues do not include genre-specific conventions, such as formatting, headings, capitalization, punctuation marks or documentation of sources.) (p. 14)

Instructors of FYC courses have been informed of this policy and workshops providing opportunities to discuss the policy and its implementation have been offered to clarify it to the instructors. In addition, all new instructors of English composition courses for non-native English speakers are required to enroll in a course (Teaching Multilingual Composition) during which grading based on grammar is one of the topics of discussion.

Recruitment Procedure

After obtaining the list of faculty teaching the FYC courses for multilingual writers in Spring 2014, I contacted the instructors in person during Fall 2013 to ask for their participation, and ten instructors responded to the invitation by filling out an online questionnaire (see Appendix B) that was designed to elicit information about their feedback practices. For the purpose of the study, it was desirable to study how students engage with different types of feedback, and the questionnaire elicited that information, and the information was then used to select the study participants.

During the first week of Spring 2014 semester, I visited the classes of the nine instructors who had agreed to participate in the study to introduce myself to the students and ask for their participation. I prepared a PowerPoint presentation to explain the key aspects of the study. The primary goal for the visit was to explain the kind of involvement expected from the student participants, i.e., the approximate time of interviews, willingness to work on one of their essay revisions in the presence of a researcher, and willingness to be video recorded while doing it. To encourage students to agree to participate, I offered a financial incentive in the form of a gift card (\$30 value) as well as provision of extra grammar feedback for the graded papers in this course or one paper written for a different course. I handed out a written invitation to participate (see Appendix C), which included the same information that was presented to students orally. The written invitation asked students who agreed to participate for their signatures and contact information.

Seventeen student participants signed the form initially, and ten of them responded to the online questionnaire, which I designed to elicit basic demographic

information, such as country of origin, native language, major, and number of months/years studying English writing (see Appendix D) as well as their most recent English proficiency test scores (e.g., TOEFL, IELTS) to determine their level of English proficiency. The questionnaire also inquired about student availability to meet with me during the semester. Eight of the ten students ended up meeting with me for interviews and revision of their essays and are included in the current study.

Participants

Students

All of the student participants are Chinese native speakers from China and are between the ages of 19 and 23. All student participants are international students holding a student visa and most of them came to the U.S. less than a year ago. The exception is two students who came to the U.S. as high-school exchange students. Below, I introduce each student and provide Table 2 with a summary of their background.

- Dong is a 19-year old male majoring in Secondary Education and Political Science. He came to the U.S. for his senior year in high-school and, with a score of 74 on his TOEFL test, was placed in WAC 107 his first semester at ASU. Just like the other student who studied in a U.S. high school before coming to ASU, his oral English appeared to be quite advanced but he indicated having a lot of grammar problems in his writing.
- Hui, a 20-year old male, is an Architecture major. It was his second semester at
 ASU and, like most of the participants, took WAC 107 the previous semester. His
 TOEFL score was 70 at the time of his placement into WAC 107.

- Lin is a 23-year old female, majoring in Accounting. She was enrolled in WAC 107, and it was her first semester at ASU. She was placed in WAC 107 with a TOEFL score of 80. Before coming to ASU, she studied accounting in China for 2 years.
- Min is a 19-year old male student majoring in Business. He came to ASU in Spring 2013 and completed two sessions of the American English and Culture Program (AECP) before taking ENG 107. His placement exam score was 5.5 on the IELTS, but his English proficiency, both oral and written, seemed much higher at the time of the study.
- Ping is a 21-year old female majoring in Communication. She was placed in WAC 107 with a IELTS score of 6 before taking ENG 107. Her English proficiency appeared much higher than indicated by the test score, especially judging by the quality of her paper written for ENG 107.
- Qiang is a 19-year old male majoring in Computer Science. He was enrolled in WAC 107 with a score of 66 on the TOEFL test. During our oral and written communication, Qiang was always short and to the point in his replies and he indicated that he was not very confident in his writing abilities.
- Xin, a 19-year old female engineering major, who came to the U.S. as a high-school exchange student and has lived in the U.S. for three years. She completed two years of high school in the U.S., her junior year in Indiana and her senior year in Massachusetts. She then came to Arizona and was placed in WAC 107. She scored 85 on the TOEFL test. While her basic spoken English seemed advanced,

- she indicated that she had major problems with writing and that her English courses in high school were very difficult for her.
- Zehao is a 19-year old male, majoring in Management. Unlike all the other students enrolled in ENG 107 Stretch, Zehao took WAC 107 with a different instructor. He was placed in WAC 107 with a TOEFL score of 70. He seemed to have some difficulties completing his writing assignments, and during our first attempt to record his essay revision, we ended up discussing the writing assignment, which he apparently misunderstood.

Table 1
Student Participants

Name	Country/ Language	Time in the U.S.	Age	Gender	Test Score	Course
Dong	China/Chinese	2 years	19	Male	74 (TEOFL)	ENG 107
Hui	China/Chinese	5 months	20	Male	70 (TOEFL)	ENG 107
Lin	China/Chinese	1 month	23	Female	80 (TOEFL)	WAC 107
Min	China/Chinese	10 months	19	Male	5.5 (IELTS)	ENG 107
Ping	China/Chinese	5 months	21	Female	6 (IELTS)	ENG 107
Qiang	China/Chinese	1 month	19	Male	66 (TOEFL)	WAC 107
Xin	China/Chinese	3 years	19	Female	85 (TOEFL)	ENG 107
Zehao	China/Chinese	5 months	19	Male	70 (TOEFL)	ENG 107

Instructors

Based on instructor responses in the online questionnaire, nine out of the ten instructors who responded to the questionnaire qualified for the study. The one instructor

who did not qualify had indicated that he did not provide any grammar feedback. The final number of instructor participants included in the study was determined by whether or not the students in their classes agreed to participate in the study. In the end, four instructor participants were included in the study. Three out of the four instructors were native English speakers, and one was a non-native English speaker. Most of the instructors had more than three years of experience teaching English composition to multilingual writers, with the exception of one instructor. I introduce each of the instructors below.

- Jennifer has taught WAC 107 and ENG 107 courses for over four years, and during Spring 2014, she taught ENG 107 Stretch, and four of her students from two different sections of the course participated in the study. She is a graduate of ASU, and she earned a Master's Degree in English (Literature). Jennifer usually provides WCF for five minutes and then continues to focus exclusively on content. For one of the papers, she gave students grammar feedback electronically using track changes, and for the other, she provided handwritten comments or corrections on a hard copy of the paper. She varies her feedback but mostly provides correction codes. Students have access to the list of codes with examples to refer to when revising their paper.
- Lisa taught ENG 107 Stretch, and two of her students participated in the study.
 She is a Ph.D. student in Rhetoric and Composition, and it was her first semester teaching English composition for multilingual writers. Before teaching ENG 107, she taught ENG 101 and ENG 102 as well as ENG 301 (English for the Professions). She provided grammar feedback on one of students' papers and she

gave it to students while conferencing with them online via Google Drive.

Students had an option to meet with Lisa face-to-face or online, but in both cases, students received their WCF electronically in the paper. Lisa focused on grammar in one paragraph in students' papers, and most of her grammar feedback was in the form of a metalinguistic feedback.

- Ph.D. student in Rhetoric and Composition and has taught WAC 107/ENG 107 courses for over three years. She provided her feedback electronically directly on students' papers and indicated that they sometimes discuss it during student-instructor conferences. She also indicated that she usually provides ample grammar feedback on one of students' papers and much less or none for the other papers. She used track changes to provide students with direct feedback and inserted comments to indicate some problem or provide metalinguistic feedback. Grammar feedback was provided for the entire paper.
- but did not complete the study due to scheduling issues. It was her second semester teaching at ASU, and while she had experience teaching English composition at other institutions, she did not have much experience teaching the courses specifically designed for multilingual writers. With her educational background in TESOL, she was guided by the knowledge she gained in the TESOL program and her previous teaching experience. She indicated that she usually provides WCF in handwritten comments directly in the students' papers

and that she most often circles errors, provides direct feedback, or brief explanations or questions.

Data Collection Procedure and Methods

The data collection tools included background questionnaires and interviews with students and instructors, as well as screen-capture software and video-stimulated recall to provide a comprehensive account of the student actions taken during the revision process and the external factors that might have affected it. The summary of data collection techniques and data gathered can be seen in Table 2 below.

Table 2

Data Gathered through the Specific Data Collection Methods

Data Collection	Data Gathered		
Student background questionnaire	Country of origin, native language, major, and number of months/years studying English writing, English proficiency test scores		
Written assignments with feedback	Two drafts (first and revised) with the instructor's feedback		
Video (using Camtasia Relay)	Student on-screen activity and off-screen behavior		
Video-Stimulated Recall	Students' intents and reasoning for their revisions and strategies used		
Student Interviews	Students' perspectives and attitudes toward feedback and their engagement with it		
Instructor interviews	Instructors' perspectives on their influence on students' engagement with feedback		

Screen-Capture and Web-Cam Video

I video recorded students while they were revising their essays upon receiving the instructor's feedback to address the main research question (How do students engage with different types of WCF during the revision process?). I used Camtasia Relay video recorder, software which allows full resolution screen capture and full-facial expression capture, to learn how students engage with WCF. The software can be saved on an external drive and used on any computer with a USB port. Unlike other software programs available on the market, Camtasia Relay does not require rendering time and allows instant replay and fast forward and backwards functions along the video.

Each of the eight students was video recorded once as he or she revised the first draft of one of their papers. Students were asked not to begin the revision until our scheduled meeting, and in all of the cases, I was able to meet with students at their convenience within three days after they received their feedback, and in many cases, we met the day after they received it. Most of the meetings were held at the office on campus, but I always asked the students if they preferred to meet somewhere else, and one student suggested the library, which is where she said she normally worked on her papers. Once we met, students opened their essays either on their own laptop computer or mine and I began recording when students indicated to be ready to begin their revision.

Just like the students who received their WCF electronically on their paper, students who received handwritten feedback on a hard copy of their paper were video recorded using Camtasia Relay. The only difference was that they looked at the paper to read their feedback but they made changes on the computer just like the other students.

Video-Stimulated Recall

After the students finished revising their essays, they participated in the videostimulated recall to help me address the second research question (Does engagement lead to understanding of the nature of the error?). I audio recorded the stimulated recall using Smart Voice Recorder, an Android App downloaded from Google Play, which was placed next to the computer as we were reviewing the video-recorded session. The stimulated recall was conducted immediately after students completed their revision as the information provided during the interview depends on how well students remember what had occurred during the revision. This was a crucial part of the study as it provided essential insights about students' thoughts and decisions that were made in response to the received feedback. I was aware that students might not understand that I was interested in what they were thinking at the time of the revision, not at the time of the interview. When I suspected that students were giving me their hindsight thoughts, which would be thoughts that occurred during the interview rather than at the time of the revision, I checked with the students to confirm if they were talking about now or then. I let the students know that both kinds of insights are important but that I needed to be able to distinguish them. I also let the students know that it was fine if they could not remember what they were thinking at the time of their revision. I told the students that I would pause the video frequently and ask for their thoughts and that they could also pause the video at any time they remember thinking about the feedback or the revisions they were making. All in all, I tried to be sure that students understood the purpose of the stimulated recall as well as the process.

As students and I watched the video of their on-screen activity along with the video that recorded their off-screen behavior, most often I stopped the video at a point that the students engaged with feedback, but on several occasions students initiated the pause. When the video was paused, I inquired about the students' thoughts at that time as well as the reasons for the decisions they made during the process. For example, a student who was recorded deleting or omitting a particular item was asked about the reason for doing so, and a student who was observed struggling with a problematic area in the paper was prompted to tell me about the specific reasons for the struggle.

Observer Effect and Its Implications

While the two data collection methods described above have many advantages, and they allowed me to gather in-depth details about the process of student revision, it is possible that these particular methods impacted student behavior to some degree. For example, the software used in the current study recorded students' on-screen as well as the off-screen activity using a web camera, which was focused on their entire writing behavior, which may have affected how they responded to feedback. I also acknowledge that student revision might have been affected by the fact that they knew I was interested in how they revise their paper based on the grammar feedback. It is possible that they would have spent less or more time revising their paper, or that they felt a little more pressure to perform "well." When the recording began, I either worked on my computer or read a book. I did not try to monitor their revision in any way, and I informed the students that I was there just in case there was a technical difficulty or if they had a question about something. I tried to make the process as unobtrusive as possible and also informed the students that they could stop the revision when they wished, but they also

could take as much time as they wished or had to finish revision. I also let them know that they could use any materials, such as a grammar book or an online dictionary, which they would normally use while working on their revisions. It was my impression that all students appeared comfortable with the setting.

In addition, students' recall of their thoughts following the revision may have been affected by their memory capacity. As Ericsson and Simon (1993) cautioned, asking participants to vocalize their thoughts and explain them increases cognitive load in short-term memory and, consequently, may impede memory and recall. Therefore, while having the visual cues present in the video should be helpful in jogging students' memory and what they were thinking at that moment, it is still possible that they were not able to recall all the thoughts they had. It is also possible that students were not able to express what they were thinking due to the discussion being conducted in students' L2, not their native language, or that what they expressed was unintentionally misinterpreted by me. It is my hope that I was able to accurately reflect the reality; however, my analysis of the data I gathered is my interpretation of what occurred and what was said and it should be regarded as such.

Interviews with Students

I interviewed students once at the beginning of the semester and once at the end, both times to address my third research question: How do internal and external factors affect students' engagement with WCF? I used a semi-structured interview approach, as described by Seidman (1998), which means that while I prepared questions in advance, they were created to open up a conversation about different topics related to WCF and most often they were followed by questions that were not written in advance. The goal

for the first interview was twofold: 1) to make sure that students understood the nature of the study, that they understood what I meant by WCF, and that they understood what would be required of them and 2) to learn about students' previous experience with WCF and their feedback expectations (see Appendix E for the beginning-of-semester interview questions). For example, in order to learn about students' previous experience with WCF, I asked them to describe a specific writing assignment that they had completed in the past and for which they had received instructor's feedback. I asked if and how they had used the instructor's feedback and what they had done to help them revise their draft. Knowing students' past engagement with feedback was helpful in recording any changes or new strategies that they developed during the course of the semester.

The goal for the end-of-semester interview was to gain further information about students' engagement with feedback and factors that affected their performance. For example, I sought to find out whether or not students used any other strategies to help them with the revision of the paper (see Appendix F for the end-of semester interview questions). In addition to asking about the strategies employed, or lack thereof, during the recorded session, I asked about strategies that they had used to revise their paper that were not recorded during the sessions (e.g., discussions with the instructor, a friend, or family members or receiving help with writing from a tutor or a friend). Considering that students tend not to be forthcoming with this information, I tried to use myself or other students as an example and let them know that it was a common practice to receive help with their writing outside the class. In addition to questions regarding students' use of revising strategies, I inquired about students' perspectives about the feedback they had received (see Appendix F). For example, I asked if feedback was important to students, if

they thought it had been useful, and if they were satisfied with their grammar revisions. I also asked if it was easy or difficult to use the feedback they received and if there was anything they wished the instructor did to help them with the revision. Answers to these questions provided me with insights about the factors that may have influenced their engagement.

Interviews with Instructors

To gather more data about students' engagement with WCF and factors that may influence it, I also interviewed the students' instructors, who participated in one interview at the end of the semester (see Appendix G for instructor interview questions). In addition to gaining more insights about students' engagement, I sought to learn about instructors' perspectives on WCF and their potential role in students' engagement. For example, I inquired about their thoughts on the importance of correct grammar in their students' paper, whether and how they encouraged students to use their feedback, or if they taught students any strategies related to utilizing their feedback. I also asked about their perspective on factors that they believed influence students' engagement with the grammar feedback they provide.

Data Analysis

Students' Drafts

The copies of students' papers, both with electronic and handwritten feedback, were collected for analysis. The data obtained from students' drafts were coded to identify the types of WCF students received to be able to determine if different feedback types promote different processing. I used inductive codes, which were generated after my initial examination of the data, and the following codes were developed to identify

feedback type: direct correction (electronic and handwritten), error location with error code, error location by highlighting, comments with metalinguistic explanations, and comments without metalinguistic explanations.

Screen-Capture and Video-Stimulated Recall

The data obtained from the video-stimulated recall during which students verbalized their thoughts and reasons for changes, or lack thereof, were transcribed and analyzed using the analytical framework which involved the identification of language related episodes (LREs), following the researchers who utilized this method to study noticing and engagement during collaborative feedback processing (Storch & Wigglesworth, 2010; Swain & Lapkin, 2002; Qi & Lapkin, 2001). LREs were originally developed as a unit of analysis of think-aloud protocols (Swain & Lapkin, 1995) and were later adapted by Qi and Lapkin (2001) to analyze both think-aloud protocols and language-related noticing, such as self-correction, which were captured by the videotape but not necessarily verbalized in the think-aloud. Storch and Wigglesworth (2010) employed LREs to analyze "segments in the pair talk during which learners focused explicitly on language items" (p. 310) to examine students' engagement during the comparison of their draft with its reformulated version. As was mentioned earlier, Storch and Wigglesworth defined engagement as explanations, comments, or any other evidence of meta-awareness of the reformulation feedback.

In the current study, a LRE is defined as any instance of feedback encountered by the student in his or her paper as recorded via Camtasia Relay, even if the actual revision did not occur. To examine student engagement with WCF, each LRE was coded as either "Yes" or "No" (see Figure 2) for engagement. I considered that students were engaged

during episodes when they either made a revision or showed evidence of some activity, such as checking a dictionary, or deliberating the error, which would be otherwise not observed by just checking students' revised drafts.

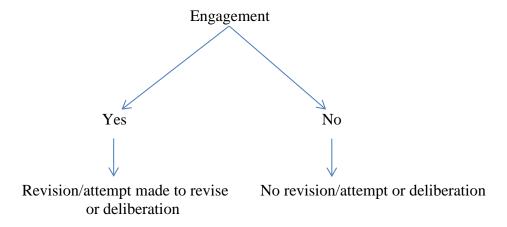
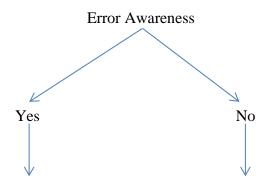


Figure 2. LREs coding procedure: Engagement

The second stage of my coding involved determining the depth of students' engagement as they revised their text. In other words, in addition to determining if and how students engaged, I also sought to determine how deep their engagement was. In order to identify the depth of students' engagement, I tried to determine students' understanding of the errors while they were making the changes, attempting to make them, or just thinking about the corrections made for them. Just like for engagement, each LRE was coded "Yes" or "No" for error awareness (see Figure 3). For example, if a student said: "I said 'say' and it is changed to 'said,' so, it's still the tense," I coded it as "Yes" because the student showed evidence of understanding the nature of the error (tense) by looking at the error. For the purpose of the study, I coded "Yes" for error awareness when students were able to at least indicate to me in some other way that they understood the nature of the error, perhaps by just referring to some other word in the sentence without necessarily giving me the linguistic term, with which they may not be

familiar. However, if a student said: "I just write watch and she changed to watching (in "I still can remember my father and me *watching* dialect talk show in our old house..") without indicating the reason for the change, I coded it as "No." Recognizing that some change was made to a word form without analyzing why it was made and being able to make some connections between form and meaning is not likely to have any effect on changes in the students' interlanguage.



Understanding of the nature

of the error

No understanding of the nature

of the error

Figure 3. LREs coding procedure: Error Awareness

I refer to this second stage of coding as "error awareness" rather than "noticing" as was done in Qi and Lapkin's (2001) and Swain and Lapkin's (2002) studies in order to avoid conflating the terms engagement and noticing as one concept as was done in Storch and Wigglesworth's (2010) study. It was important for me to distinguish between what students did and what they understood as, under the usage-based grammar theory of language development, language emerges from "use," so theoretically, it is possible to learn without understanding the nature of the error, provided that such use occurs in a meaningful context. By analyzing the data separately for engagement and error awareness, I was able to demonstrate the amount of feedback that students engage with in

that they made, or which were made for them, as in the case of direct feedback.

Conversely, by making this distinction, I was able to capture students who showed no evidence of engagement (i.e., making the revision) but indicated that they understood the nature of the error, which could be also the case after receiving direct feedback, and students who made a revision but without understanding why they made it, which could be the case with error code feedback or direct feedback provided on the hard copy of the paper.

The last stage of coding involved identifying error resolution, which was classified based on students' response to feedback and whether the change that was made was correct, incorrect, or unresolved. The unresolved resolution, in most cases, meant that a student seemed unable to determine how to respond to feedback and nothing was done as a result; in cases of direct feedback, error resolution was determined as unresolved when students did not accept (or reject) the correction.

Reliability of Coding. Coding for engagement, error awareness, and error resolution, and even for the type of feedback when it was indirect, proved to be quite challenging. First of all, instructors were not trained to provide WCF, and it was often difficult to determine which category the particular feedback fell under, and often, there was an overlap of categories. It was the most challenging to distinguish which comments were provided with enough metalinguistic information to be considered as such. In addition, some feedback fell into two categories. This was usually the case when one type such as error location with an error code also included some kind of direction for the student (e.g., mass noun, plural is the same as singular). In such cases, I chose a category

which provided the students with the most explicit feedback. So, for example, if the feedback provided an error code that was followed by a direct correction, the feedback would be considered direct, rather than the error code.

Coding for error awareness proved also be quite challenging as determining what students understood about the error was sometimes easily confused with students' understanding of the feedback, which can be different especially with certain feedback types, such as error code. More importantly, when I needed to ask follow-up questions about students' explanations, I needed to be very careful not to confuse the students' level of understanding at the time of revision with the level of understanding at the time of the stimulated recall, which prompted students to think more about the issue. At the time of the stimulated recall, I tried to avoid this confusion by clarifying if students' understanding was "then" or "now" and relying on these checks at the time of coding.

To ensure the reliability of my coding of students' revisions, a second coder, a Ph.D. student in Rhetoric, Composition, and Linguistics, coded a portion of my data. I selected two students' revisions recorded by the screen-capture software and the transcripts of the video-stimulated recall. I met with the second coder and explained my coding scheme, particularly my definition of engagement, error awareness, and error resolution. I provided the coder with a coding sheet (see Appendix H) for each of the participants and asked her to review the video along with the transcript to code each of the feedback points in students' papers which were focused on grammar.

The inter-rater reliability scores were calculated using percentage agreement. The inter-rater reliability scores for identifying the type of feedback was initially 86%, but after reviewing our decisions, our agreement reached 100%. For students' engagement,

our initial agreement was 95% but we reached 100% agreement upon revision. Inter-rater reliability was 90% when coding for the error awareness, and we reached the agreement for one of the errors, and the final agreement percentage for error awareness was 95%.

Lastly, the agreement of 95% was initially reached for error resolution, and after reviewing our coding, a 100% inter-rater reliability was reached.

Interviews with Students

The student interview data was transcribed and coded using a thematic analysis approach (Seidman, 1998). This analytical method was chosen to identify rich and detailed account of different themes and patterns emerging from the data. By categorizing the data through the thematic analysis, I created narratives, referred by Seidman (1998) as "profiles," which allowed reducing the entire data set to elements which I identified as important for the current study. My goal for the student interviews was to understand what internal and external factors influence students' engagement with feedback. I also wanted to find out what other strategies students employed to respond to feedback which were not possible to record during the revision and which were beyond the discussion that took place during the stimulated recall (e.g., going to the writing center). More specifically, the goal for the first interview with the students was to learn about students' attitudes, expectations, motivation, and strategies used in the past to respond to feedback. During the end-of-semester interview, I was hoping to learn if students' attitudes and motivation have changed during the semester, if their expectations were met, and if they developed any new strategies to help them cope with feedback. When examining the interview data, I took notes of the emerging themes, and I ended up with the following

list of topics that I discuss in chapter 5: internal factors: attitude/belief, motivation, and use of strategies; external factors: grading policy, and availability of WCF.

Interviews with Instructors

The instructor interviews were conducted to help answer my research question # 3: How do individual and socio-cultural factors affect students' engagement with WCF? My goal for the interviews with the instructors was to learn about their perspectives on WCF, which was helpful in gaining information about the context in which students receive feedback. Another goal was to learn about instructors' perspectives on students' engagement with WCF to help me substantiate my own observations. More specifically, when coding the instructor interviews, I focused on instructors' perceptions of students' expectations, their perceptions of how effectively students utilized their feedback, and what role the instructors believed they played in influencing students' engagement with their feedback. Regarding the last goal, I tried to learn how the instructors dealt with grammar in their classrooms and what kind of support they were providing to help students respond to their feedback. The list of themes that I include in the discussion in chapter 6 is as follows: perceptions of students' expectations, perceptions of students' engagement with feedback, understanding and implementation of The Writing Programs Grading Policy.

Trustworthiness of Interview Data Analysis. Qualitative research such as this case study relies on the researcher's interpretation of data, which is why it is important to incorporate measures to ensure that the analysis is credible and represents the participants' perspectives. To ensure the trustworthiness of my interpretations, I considered the concepts of credibility, transferability, and confirmability (Guba, 1981).

While it may be difficult to establish trustworthiness of qualitative research that is designed to explore a topic under investigation (e.g., WCF), rather than test the researchers' hypothesis as in quantitative research, considering these concepts allowed me to become more aware of the role I, as the researcher, play in the overall outcome of the research and the findings that I report.

In ensuring the credibility of my findings, or their truth value, I have checked the interpretation of my data with the instructors at various points of writing-up the data. To check my interpretations with the students, I purposefully planned on meeting with them for an interview at the end of the semester to be able to clarify any points of confusion from the students' revision data. In an effort to ensure transferability, I provided detailed descriptions of my data collection tools, some of which (screen-capture software) have not been used in studies on WCF, as well as "thick" descriptions of the context in which the study was conducted.

Lastly, and perhaps more importantly, to ensure confirmability, namely, that my findings are the result of the participants' experiences and thoughts, rather than representing my own, I provided numerous examples of students' WCF provided in their paper as well as the descriptions of their revisions substantiated by their own explanations provided during the video-stimulated recall. When reporting on the interview data, I quoted the participants directly without altering any of the interview data.

CHAPTER 4

STUDENT ENGAGEMENT WITH WCF AND THE PEDAGOGICAL FACTORS THAT INFLUENCE IT

This chapter presents the analysis of students' revision captured by the screencapture video, and the video-stimulated recall conducted immediately after the revision to uncover the behind-the-scenes of student revision when they encounter WCF. The ultimate goal of the chapter is to demonstrate how students' engagement with WCF (i.e., how they process it and what they notice and/or understand about the nature of the error) is influenced by pedagogical factors. Based on my analysis, the two major influential pedagogical factors were the type of feedback they received (e.g., direct vs. indirect) and the method of its delivery (e.g., electronic vs. handwritten); therefore, my analysis is organized in terms of those two major categories. Before presenting the analysis of engagement and error awareness, I briefly define and identify the WCF found in students' texts and discuss the outcome of their revision and argue that the evidence of correct error resolution may not be a reliable measure determining the potential of WCF for language development nor students' willingness to engage with it as the number of correct revisions does not correspond to students' engagement and/or the level of understanding.

WCF Identified in Students' Texts

My analysis of students' papers resulted in the identification of five different types of WCF, which can be broadly categorized as direct and indirect feedback. Direct feedback consisted of direct corrections in students' texts (either electronic or handwritten) and in marginal comment boxes. In order of frequency, indirect feedback

consisted of 1) error location with error code, 2) comments with metalinguistic explanation, and 3) comments without metalinguistic explanation, and 4) error location by highlighting using the Text Highlight feature. The coding procedure resulted in the identification of LREs, which, as explained earlier, are defined as the instances of grammar feedback¹ encountered by students in their papers regardless of uptake. Table 3 illustrates the number of LREs by individual student and feedback type.

Table 3

Feedback Type Identified in Students' Papers

Name	Direct	Error Code	Comment w/	Comment w/o	Highlighting	Total
			Explanation	Explanation		
Lin	38	1	1	2		42
Qiang	28		1	4		33
Hui	5	7		2		14
Dong	3	9	2			14
Zehao	10	15		1		26
Ping	7	2				9
Xin	1	6	4	1		12
Min	11	1	4	2	6	24
Total	103	41	12	12	6	174

Direct Feedback

As seen in Table 3 above, all students were provided with some direct form of feedback. Most students received it electronically by "track changes," a tool in Microsoft Word that shows changes made in the text in a different color, or in a comment box. In addition, two students were provided with direct corrections which were handwritten by the instructor in the students' text (see Figure 4). For most students who received feedback by track changes, such changes (both deletions and insertions) by the instructor

¹ Punctuation and spelling corrections are not included in the analysis.

were shown "inline" (see Figure 5) and in one case, the insertions were shown "inline," but the deletions were shown in a "bubble" in the margin (see Figure 6). Direct corrections were found to be mostly made to correct tense, correct word form, delete unnecessary words, and insert missing words.

Others think that nuclear energy are too dangerous to use.

Figure 4. Handwritten direct correction

Interest group is a necessary being bearing the reason for its existence within itself. As

James Madison stated in Federalists, No10 that stated that interest groups are the stuff of which

Figure 5. Track changes shown in line

Just started in that time, I knew, a different dialect in my mind.

Figure 6. Track Changes shown in line and in "bubbles"

As indicated in Table 3 above, direct feedback accounts for more than half of the total feedback that was provided. It should be emphasized, however, that out of the 103 instances of direct feedback, 66 were identified in the paper of two students, Lin and Qiang. Both students were enrolled in the same class (WAC 107) with the same instructor (Chen), who indicated a preference for this feedback type for students at the lower proficiency level.

Indirect Feedback

Error Location with Error Code. Following direct feedback, this was the second most common feedback type. An error code provides students with an indication about the nature of the error by writing a symbol of the error type, e.g., w.c. (word choice), v.t. (verb tense), pl. (plural). The most common error codes were v.t. and pl.,

with 12 cases of each found in students' papers, followed by six cases of w.c. error code and four of p.o.s. (part of speech). The other error codes included frag. (fragment), s.s. (sentence structure), prep. (preposition), w.o. (word order), and run-on. In this study, instructors provided error codes in comments in the margins or, in the case of handwritten feedback, by circling and writing the code above it (see Figure 7).

Furthermore, the error code was sometimes provided only as a symbol (e.g., v.t.), and sometimes it also included the label (e.g., v.t. [verb tense]) or was provided only as a label (e.g., verb tense). Four of the seven students that received this feedback type (Hui, Dong, Zehao, and Ping) were provided with a guideline that explained what the error codes meant, and students were expected to use it when they needed. The three other students did not indicate that any guidelines existed.

both of the attack were failed and no one came back. In the Second World War, Japan swiped the

Comments with Metalinguistic Explanation. This feedback type provides students with some description about the nature of the error and using metalinguistic terminology prompts students to think about their error without providing a direct correction. As such, it relies on students' familiarity with metalinguistic terminology, such as subject or object, or tense. In this study, instructors mostly provided this kind of feedback to address the error in the use of tense (see Figure 8), "convoluted syntax" indicating to the student that it is not clear "what the subject is" and "what is being done" (Xin's instructor), and one indicated a missing verb (Min's instructor).

So I try tried to learn English more diligently, I still memorize vocabulary, learn grammar, practice listening and do many English reading, but everything change, the same things became more interesting and easy to learn.

Figure 7. Error Location with Error Code

Comment: This was something that happened in the past, so use past tense.

Figure 8. Comment with Metalinguistic Explanation

Comments without Metalinguistic Explanation. Comments without metalinguistic explanation comprise mostly of feedback indicating lack of clarity or confusion. Essentially, such comments appear to be provided to let students know that they should rewrite a whole sentence because its message is not clear. With rare exceptions, these comments do not indicate what specifically is confusing or why something is unclear. Examples of such comments include "Rephrase," "This sentence is confusing," "Try Re-wording." Some of the 12 comments identified in students' papers targeted a specific phrase; an example of such comment is seen in Figure 9 below:

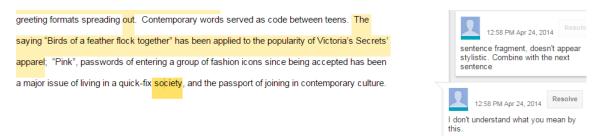


Figure 9. Comment without Metalinguistic Explanation

Error Location by Highlighting. Only one student, Min, received this kind of feedback and the errors were indicated to the student by highlighting single words in yellow (see Figure 10). His indirect feedback is used to indicate that an error occurred, but no additional description or explanation is given. Most of the errors that were indicated by this feedback type were errors of subject-verb agreement and tense.

type of toy which people in that age probably never seen or heard before. Definitely, for me and people in my age, we are familiar with <u>Pokemon</u> like the back of our hands, and we clearly remember those hundreds of <u>name</u> of different monsters in <u>Pokemon</u> (I am kind of surprised

Figure 10. Error Location by Highlighting

As can be seen from the examples of different feedback types identified in students' papers, students can expect to find a variety of feedback types delivered in different ways. Two out of eight students received their feedback on the hard copy of the paper and the six other students received it electronically. Five out of the six students, who received feedback electronically, received their feedback in a Word document, and one student, Xin, in a Google document online. Most students seemed familiar with the technology used to provide feedback, with the exception of two students, Lin and Qiang, who experienced difficulties with either seeing or understanding how track-changes function. It is likely that Lin would have never seen the direct corrections via trackchanges in her paper if we had not met and opened her paper with feedback on my computer which she used for her revision. Apparently, when she opened the paper with feedback the day before we met to make content changes, she did not see any of the direct changes because they were automatically accepted and not visible in red or blue as expected by the instructor. Lin was surprised to see that there were track changes in her paper when she opened it in my presence and told me that earlier she only saw comments (some containing grammar feedback). The other student, Qiang, who also received direct feedback via track changes from the same instructor, did not report opening the paper before our meeting, so it is not clear if he would have had the same issue as Lin. However, there was an indication that he was not familiar with track-changes, and, as will be shown later in this chapter, his revision appeared to be influenced by it to some degree.

The Outcome of Students' Revision

This stage of my analysis involved identifying whether the revision was correct, incorrect, or unresolved (i.e., student did not make a revision). Table 4 presents individual students' error resolution for all the errors identified in their papers. As can be seen, most students' revised papers had a much higher level of accuracy, averaging 82% of correct resolution. What the numbers in Table 4 do not indicate is that most of the correct resolution included in the percentage is a result of direct feedback, both electronic and handwritten (see Table 5), which, as will be shown in the analysis of engagement and error awareness, was mostly ignored by the students; therefore, most (76%) of episodes following direct feedback were considered unlikely to facilitate language development as students did not engage with it, nor notice what the issue was.

Table 4

Error Resolution and Percentage (%) of Students' Total LREs

Name	Correct	Incorrect	Unresolved	Total
Lin	42 (100)	0 (0)	0 (0)	42
Qiang	28 (85)	2 (6)	3 (9)	33
Hui	9 (64)	2 (14)	3 (22)	14
Dong	6 (43)	2 (14)	6 (43)	14
Zehao	20 (77)	5 (19)	1 (4)	26
Ping	7 (78)	1 (11)	1 (11)	9
Xin	7 (58)	1 (8)	4 (34)	12
Min	24 (100)	0 (0)	0 (0)	24
Total	143 (82)	13 (8)	18 (10)	174

Table 5

Error Resolution by Feedback Type and Percentage (%) for Each Type

Resolution	Direct	Error Code	Comment w/	Comment w/o Explanation	Highlighting	Total
			Explanation			
Correct	100(97)	22(54)	8 (67)	7 (58)	6 (100)	143(82)
Incorrect	2(2)	9 (22)	0 (0)	2 (17)	0 (0)	13 (8)
Unresolved	1(1)	10 (24)	4 (33)	3 (25)	0 (0)	18 (10)
Total	103	41	12	12	6	174

Table 6 indicates error resolution based on indirect feedback for individual students and it indicates that, on average, the percentage of correct resolution for indirect feedback when all types of the feedback are combined is 61%, compared to 97% for direct feedback. This is not a surprising finding, and it is generally accepted that direct feedback results in more accurate drafts since students are not required to resolve errors on their own but simply accept it or transfer it to the original draft if the corrections are handwritten. Indirect feedback is generally believed to be more beneficial for language learning as it encourages students to think about the errors, but I would argue that 61% of correct resolution is not a very impressive outcome and while theoretically it can be more beneficial, in practice, more than half of the opportunities do not result in correct output.

More importantly, however, while the correct resolution for all indirect feedback types is 61%, as will be shown later in the chapter, students were found to engage with 82% (either by making the actual correction or attempting to make it), which suggests that their willingness to engage with the indirect feedback does not mean that it can lead to successful revision, which most of the time is due to either not understanding the feedback or the students' ability to locate the error indicated in the feedback. I will also

demonstrate how different types of indirect feedback influence their engagement and error awareness, and ultimately whether it can facilitate their language development.

Table 6

Error Resolution and Percentage (%) of Students' Indirect Feedback Only

Name	Correct	Incorrect	Unresolved	Total
Lin	4 (100)	0 (0)	0 (0)	4
Qiang	1 (20)	1(20)	3 (60)	5
Hui	5 (56)	2 (22)	2 (22)	9
Dong	3 (27)	2 (18)	6 (55)	11
Zehao	11 (69)	4 (25)	1 (6)	16
Ping	0 (0)	1 (50)	1 (50)	2
Xin	6 (55)	1 (9)	4 (36)	11
Min	13 (100)	0 (0)	0 (0)	13
Total	43 (61)	11 (15)	17 (24)	71

Students' Engagement and Error Awareness

My analysis of student revision was conducted in two stages. The first stage consisted of identifying how students process WCF. This stage of the analysis was mostly based on the on-screen activity recorded by the screen-capture software, which allowed me to determine if students attempted to make a revision (e.g., by checking an online dictionary or returning to the same feedback point to reconsider it) even if no revision could be seen in the revised draft. It also helped me to determine how much attention students pay to errors that are directly corrected in their paper as that form of engagement cannot be captured only by reviewing students' revised drafts. The second stage involved determining what students thought about and what they noticed when they read the feedback and this information was gathered during the video-stimulated recall during

which I was able to question students about their decisions and specific revisions, or lack thereof.

When all types of WCF, including direct corrections, are combined for all students, I found that, on average, students were engaged (i.e., revised or attempted to revise the error) with 83 (48%) feedback points and showed no evidence of engagement with 91 (52%) (Table 7). When analyzing individual students, the percentage of engagement is widely spread among all students, with a range of 86. This means that some students engaged with only 10% of their total feedback, while others with nearly all. Moreover, when the same data was analyzed to determine students' error awareness, I found that even when students made a revision, or in the case of direct feedback noticed that a change was made and thought about it (i.e., engaged with the feedback to some extent), they did not always indicate that they understood why they needed to make a correction or why the revision was made for them. As seen in Table 8, on average, students processed 58 feedback points (33%) with the evidence of error awareness. The range for the percentage of error awareness for individual students was not as high as for the engagement (67 compared to 86 for engagement); one student showed evidence of error awareness for more than half of their errors (67%) and one for none. Below I present the analysis of students' engagement and evidence of error awareness for different feedback types.

Table 7

Engagement with WCF and Percentage (%) of Student Total Number of LREs

Name	Yes	No	Total
Lin	4 (10)	38 (90)	42
Qiang	6 (18)	27 (82)	33
Hui	11(79)	3 (21)	14
Dong	5 (36)	9 (64)	14
Zehao	25 (96)	1 (4)	26
Ping	8 (89)	1 (11)	9
Xin	9 (75)	3 (25)	12
Min	15 (63)	9 (37)	24
Total	83 (48)	91 (52)	174

Table 8

Error Awareness and Percentage (%) of Student Total Number of LREs

Name	Yes	No	Total
Lin	9 (21)	33 (79)	42
Qiang	6 (18)	27 (82)	33
Hui	5 (36)	9 (64)	14
Dong	3 (21)	11 (79)	14
Zehao	14 (54)	12 (46)	26
Ping	0 (0)	9 (100)	9
Xin	8 (67)	4 (33)	12
Min	13 (54)	11 (46)	24
Total	58 (33)	116 (67)	174

Direct Feedback

While direct feedback invariably leads to correct revision errors in students' revised drafts, students in my study showed very low level of engagement with this type of feedback and even lower level of error awareness. As is seen in Table 9 below, on average, students showed evidence of engagement with 24% of direct feedback and, as seen in Table 10, they showed evidence of error awareness of only 18% of the direct

feedback. All direct feedback with which students did not engage was identified as feedback provided by track changes, which was the method by which three out of the four instructors delivered their feedback, and nearly all of the direct feedback with evidence of error awareness was found in Lin' and Qiang's revisions, which I will show can be attributed to noticing a pattern of correction in a paragraph.

Table 9

Engagement with Direct Feedback by Method of Delivery (LREs)

Name	Yes	No	Total			
Track Changes						
Lin		38	38			
Qiang	1	27	28			
Hui	4	1	5			
Dong		3	3			
	Handwritt	en or Comme	ent			
Zehao	10		10			
Ping	7		7			
Xin	1		1			
Track Changes and Comments						
Min	2	9	11			
Total	25	78	103			

Table 10

Error Awareness for Direct Feedback by Method of Delivery (LREs)

Name	Yes	No	Total				
	Track Changes						
Lin	7	31	38				
Qiang	6	22	28				
Hui		5	5				
Dong		3	3				
	Handwritt	en or Commo	ent				
Zehao	2	8	10				
Ping		7	7				
Xin	1		1				
Track Changes and Comments							
Min	2	9	11				
Total	19	84	103				

Direct Feedback Delivered via Track-Changes. As seen in Table 9 above, most students who received direct feedback via track changes were found not to engage with it as there was no indication that they took any action as a result of encountering it—while they were clearly not required to make any revisions, they did not accept or reject the changes that were made which would indicate engagement to some extent. However, none of the students accepted nor rejected any of the corrections, so unless they transferred the corrections into their revised drafts, I considered it as lack of engagement.

One exception was Hui, who engaged with most of his direct feedback delivered electronically because he chose to transfer his feedback into his original draft, rather than making the revisions in the draft that contained the feedback, as was the case for all other students who received their feedback electronically. Hui's revision, therefore, resembled that of handwritten feedback. Qiang engaged with the direct feedback once because he thought that the red insertion by the instructor was his error rather than the instructor's

insertion, so he revised the correction made by his instructor. Min, who received some direct correction via track-changes and some in a comment, attended only to the two direct corrections provided in the comment, not the corrections provided by track changes.

Unfamiliarity with Track Changes. As mentioned above, none of the students accepted nor rejected changes made in their drafts, but it is also is important to point out other aspects of track-changes that may have affected students' engagement. One student, Qiang, did not realize that the red writing in his paper indicates changes made by the instructor. This was evident when Qiang encountered the correction of "talk" to "speaking" and "is" to "were" as seen in Figure 11 below:

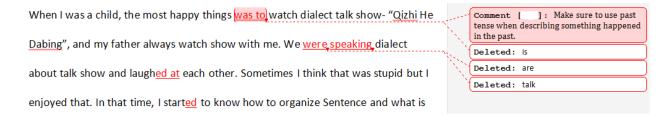


Figure 11. Qiang's Direct Feedback (insertion of "speaking")

When Qiang read the corrections, he changed "speaking" to "talked," thinking that he needed to use the past tense because the instructor wrote a comment above the direct correction indicating the need to use past tense. I asked Qiang what he thought when he saw the correction "were speaking" in red and the deletions in the margins, and he explained it in the following way:

- O: I don't see that.
- I: You didn't see that 'talk' was taken out.
- Q: Yeah.

- I: So when you saw, "were speaking," in red, what did you think?
- Q: I want to change to 'talk'.
- Q: I don't know what difference speaking and talking.
- I: Ok, so, let me clarify. When you saw "were speaking," why did you think it was there?
- Q: I saw speaking I write.
- I: Oh, you didn't realize it was corrected by your instructor, and you changed it to "were talked."
- Q: Yes, I changed it to previous.

It appears that Qiang, who had probably never received feedback by track changes before, was not familiar with how track changes functioned and did not realize that the balloons in the margins were instructor's deletions. Therefore, when he saw "talk" in the balloon, he might have assumed that the instructor wanted him to incorporate it into his text thinking that the balloons (i.e., deletions) were comments.

Disregard for Track Changes. Dong, who only received three direct corrections directly in text stated that he did not look at any of the changes carefully. For example, when I asked Dong what he thought about the deletion of "stated that" (see Figure 12), he said he had not thought about it. In the video, Dong was seen moving the mouse over the deletion, but he quickly proceeded to the next line and addressed the other feedback provided in a comment, which, to me, indicates that he did not consider why the deletion was made. When I questioned Dong about it, he said: "I had no idea why she delete that but I think it sounds better if you keep that on that sentence ... she deleted it so she deleted it but I still think I am right." While I did not question Dong if he read the entire

sentence before deciding that he was right, the screen capture video indicates that it was unlikely that he did because he merely moved the cursor over it, which may give enough time to read the deletion, but not the entire sentence. Perhaps if he had reread the whole sentence to notice that a few words before the deletion there was another use of "stated," he would have been more likely to see why it needed to be deleted. Whatever is the case, while Dong showed evidence of acknowledging this deletion, he did not appear to try to understand why it had been deleted.

Figure 12. Dong's Direct Feedback (deletion of "stated that")

Min also did not indicate any consideration made to the direct corrections via track changes. The video recording of Min's revision showed that he skimmed over the track changes and focused on the comments in the margins. When I asked Min about the direct corrections by track changes (see one example in Figure 13), Min indicated that he "just ignored [them]," and when asked if it were likely that he would return to these corrections later after we were done recording, he stated: "No, never. I just totally ignore [them]."

<u>Pokemon</u>, or Pocket Monster, is a media franchise, <u>which</u> currently belongs to a Japanese tycoon in the entertainment business, Nintendo, and one of those most successful video games in the world.

Figure 13. Min's Direct Feedback (insertion of "which")

I also asked about the two instances of direct feedback in the following sentence:

<u>Pokemon</u> contains hundreds of tiny adorable creatures in the series, and it is what I called universally cultural acceptance, which means the common agreement of attraction shared by all cultures in the world.

Figure 14. Min's Direct Feedback (called universally)

Min responded: "I saw it for a second but didn't do anything about it" (video-stimulated recall). I believe that it is quite evident that by not engaging with the feedback, Min did not indicate any awareness of why the corrections were made.

Noticing of Correction Pattern. Despite the overwhelming percentage of direct feedback via track changes being ignored, two students, Lin and Qiang, showed evidence of paying some attention to the directions, which I believe can be attributed to noticing a pattern in the feedback, which addressed relatively simple issues. In nearly all the cases when Lin and Qiang indicated that they knew what was corrected and why, the corrections were related to simple past tense indicated by adding the –ed ending to regular verbs (Figure 15).

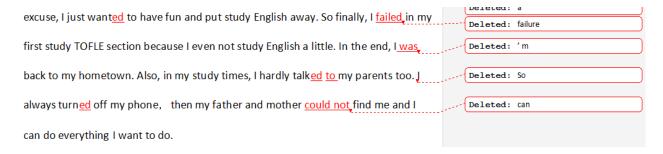


Figure 15. Qiang's Paragraph with Direct Feedback (past tense)

As can be seen in the paragraph above, most of the corrections are made to verb tense, but some are made by adding the –ed ending and some are not. In this short extract from Qiang's paper, only the corrections made by adding the –ed ending were coded as "Yes" for error awareness because Qiang indicated that he did not pay attention to the

balloons which indicated what was deleted; therefore, when there was an insertion of "was," Qiang did not indicate that he realized that it was there because he used tense incorrectly. It appears that Qiang noticed a pattern of error in his text and was able to determine that the –ed ending indicated incorrect verb tense.

When I asked Qiang about the other direct corrections, he indicated that he did not pay attention to them and that he just "passed them." He also indicated that he did not pay attention to the insertions made by the instructor. Below is the excerpt from the stimulated recall.

- I: What about these insertions? Did you look at them?
- Q: I was looking at the comments.
- I: Did you see that these words had a different color?
- Q: I see but I don't know what is different.

As indicated above, while Qiang noticed that something was done, he did not do anything about it and, with the exception of a few errors related to tense, he did not know what the instructor corrected and why. When I questioned Qiang about the correction of "watch" (see Figure 16), he stated, "I just write watch and she changed to watching" (Qiang's stimulated recall) and when I asked if he thought about why he needed to make the change, he said that he just "read and pass[ed]" it, which again does not indicate an understanding of the error. While noticing that something was changed is good, simply seeing that someone added the ending –ing to a verb is unlikely to have any impact on learning and future use in the same context since this ending could, for example, indicate a gerund or present progressive tense.

In my memory, I grew up with <u>a mandarin</u> dialect, <u>and</u> which is <u>an</u> important part of my life. I still can remember my father and me watching dialect talk show

Figure 16. Qiang's Direct Feedback ("watching")

Error Awareness with Confusion. As in Qiang's case, Lin showed evidence of understanding the nature of the errors in items that were related to the issue of tense or plurality, but when the corrections were not related to tense or plurality, she often indicated being confused about them, which as I will explain could be valuable for learning. For example, when checking the word choice correction of 'favoring' to 'engaging' (see Figure 17), Lin thought that 'favoring' meant the same as 'engaging' and she was not sure why the instructor changed the word. She paused the video herself to discuss it with me:

- L: But this one, she "engaging." I want to um..
- I: What did you think when you saw the correction.
- L: Um (thinking), I think it's the same.

customs. This is-was a favoring engaging and pleasant conversation. Finally when we had to should say goodbye, she hugged me and praised my English, I still remember she said that "Your English is very good!"

Figure 17. Lin's Direct Feedback

Based on my analysis of this episode Lin indicates evidence of error awareness as she understands that the nature of the error is word choice, and the correction clearly drew the students' attention to this particular word, which may make her more attentive to this word if she encounters it in other situations. This is the kind of evidence of error

awareness which was sufficient to determine that the understanding of the nature of the error occurred; however, I would also argue that this particular feedback would be much more beneficial for learning if the student, along with the direct correction, was told explicitly that this collocation is not correct in English, which would avoid the confusion.

When I asked her to tell more about the conversation she was describing in the paper, she explained that the conversation was *successful*, in which case, the word 'engaging' may actually have been incorrect for the particular meaning Lin wanted to express. This is when it would be crucial to follow up with students as our brief conversation about it cleared up the confusion quickly. Even though Lin seemed to be interested in learning more about this correction, as evident from her initiative to discuss it with me, she did not check the dictionary to find out more about it on her own during the revision and was not seen pausing to think about this change, which is due to the fact that students are actually not required to show any evidence for that. As I argue later, this may be a crucial step which can lead to more opportunities for learning based on WCF.

Confusion without Error Awareness. Some of the corrections encountered in Lin's paper resulted in engagement and confusion, but not error awareness. When we were discussing the correction of 'should' to 'had to' also seen in Figure 11 above, I asked Lin if she noticed what was wrong, and she indicated that she did not know why the instructor corrected it. Lin explained: "I think both can work. Yeah. We should say goodbye. We had to say goodbye (Yanlin reading)." I then asked Lin if she could think about a reason why the instructor corrected it and she said: "The time? I see all of this is okay, but maybe it's time." Lin identified the key word "time" during our discussion, not at the time of revision, so for the purposes of my analysis of error awareness, I

determined that Lin did not show enough evidence of understanding. However, my prompting her to think about the correction illustrates that perhaps if given a chance to talk to someone about the corrections, or required to write about it, this direct feedback could lead to error awareness even if students are not provided any more explanations.

Hui, who chose to transfer all the track changes into his original, which I believe was due to his unfamiliarity with how track-changes work, essentially revised his paper as if it were handwritten, so his attention was drawn to all the revisions made by the instructor. In addition to making the actual change in his original document, just like Lin, Hui indicated thinking about the corrections extensively and was confused by the revisions. For example, I asked Hui what he had thought (at the time of revision) about the deletion of 'has been' as seen below:

treatment and the stability of society, population of China increased sharply in the latter 20 years. In 1969, the population of China has been reached at 800 million (Ma). The government of China set the

Figure 18. Hui's Direct Feedback (deletion of "has been")

Hui indicated that when he saw this deletion, he thought to himself that he was not "very familiar with this form." He explains it further in the excerpt below:

- H: I don't know when should I use it, and how to use it right, in the right situation. So, I think maybe use the past way is a safer way.
- I: Is that what you were thinking at that time or you are now trying to explain this to me?
- H: Yeah, that time and now.
- I: OK, both.
- H: I am not very familiar with this kind of grammar, have, have done.

(Short pause)

- H: However, I also still think that I should use have, has, here cause it is, at that time, China has reached 800 million, so.
- I: Has reached? Now you said "has reached."
- H: Or should I use "had"?
- I: So now you see a different possibility. Do you think that the instructor may have corrected it wrongly?
- H: No, this is also a right way.

It appears that Hui thought that it was not wrong to use the present perfect tense to indicate an event that was completed at some points in the past; however, his attention was effectively drawn to this tense (but not form), and if only the instructor had included a brief explanation, such as "China's population is not 800 any longer, so there is no connection to the present time," it would have clarified at least one of the errors in this particular case. The other issue is verb form, but Hui was not aware of this neither at the time of revision nor our discussion about it.

I also inquired about the correction of "been" (Figure 19), and Hui appeared to understand that the issue is the use of passive voice, although he was unable to understand that the issue was not with the use of passive voice but its form. When we discussed this episode, Hui explained:

- H: I just think this is policy, it can't cancel by itself, it must be canceled by someone, so it should *be* canceled.
- I: And that's why you wrote 'been'?
- H: Yes.

- I: But you deleted it.
- H: Yes, because I think it is impossible professor will make mistake, so.

control the rapid population growth that was occurring in the nation at that time. And this policy was not been canceled until recent years. Even now, province Guangdong still maintains this policy. The

Figure 19. Hui's Direct Feedback (deletion of "been")

Hui showed evidence of engagement with the direct correction, and while it is clear that he was unable to understand the nature of the error (form of passive voice), I would argue that his attention was drawn to it and he was engaged and showed partial evidence of error awareness. After our video-stimulated recall, I pointed out to Hui that he had already used the verb "be" in the form of "was" so his use of "been" was redundant and that if he used "has" instead of "was," it would be fine², and that seemed to have been sufficient for Hui to see where he made the error. Perhaps if there were a brief explanation provided along with the correction (e.g., simple past passive voice: "was not cancelled"; present perfect passive voice "has not been cancelled"), the confusion would have been avoided. However, it could be even sufficient to highlight "was not been cancelled" and use error code v.t. and perhaps refer the student to a resource explaining the use of passive voice.

Handwritten Direct Feedback. When direct feedback was handwritten, students transferred the corrections to their revised draft. However, as was seen in Table 19 above, just because students engaged with the direct feedback to some extent, for example by transferring handwritten corrections, they did not always indicate awareness of those errors. In other words, while students took action as a result of the direct correction and

² I realized that the use of present perfect would have been actually more accurate due to his use of "in recent years," but in an effort not to undermine the instructor's credibility, I did not point it out to Hui at that time.

corrected the error themselves in their original draft, they did not indicate awareness of why they needed to make the correction.

Editing, Not Learning. Zehao showed evidence of error awareness of two of the ten direct corrections in his paper, while Ping showed evidence of none. For example, when Zehao was asked about the deletions of the words "recycle" and "of" made by the instructor (Figure 20), he indicated that he had not thought about why he needed to delete the words suggested by her; he "just deleted them." While this is evidence of engagement, it does not indicate that the student thought about the nature of the error, i.e., why these words were deleted.

greenhouse gas, like carbon dioxide, and have nearly recycle endless resource to use. Wind and solar energy depend on weather heavily and most of country turn to use nuclear energy as a

Figure 20. Zehao's Direct Feedback (deletions of words "recycle" and "of")

Just like Zehao, Ping seemed to just transfer the corrections without much consideration. In all of the cases, she is seen in the screen-capture video quickly transferring the corrections and not being very careful while doing it. For example, when Ping read the correction of her use of simple past (Figure21) she inserted 'have' in her electronic draft and moved on to another feedback without realizing that the main verb was changed from 'began' to 'begun'. Once she started typing below, the computer underlined the incorrect verb. Ping clicked on the green underline and selected the first suggestion given by the auto-correction. When Ping saw the deleted definite article (Figure 21), she deleted it very quickly in her electronic draft, and it did not appear that she had spent any time thinking about why it had to be deleted. She confirmed that she had not thought about it and "just saw that 'the' was crossed and deleted it."

With the people's need of energy increasing day by day, scientists began to find some new technologies to produce more energy to meet people's need. As a matter of fact, nuclear

Figure 21. Ping's Direct Feedback (deletions of "have begun" and "the")

When I questioned Ping about the other direct corrections in her paper, such as "using" corrected to "use" (Figure 22), she indicated that while she thought about the correction, she could not provide any reason why they needed to be made. In fact, she said that she had not thought that the corrected items were incorrect. Below is an excerpt from the stimulated recall when I questioned Ping about the revisions seen in the extract from Ping's paper below:

term effects like cancers are still existing. Obviously, using of unclear power is not yet mature now, there are couples of potential risks or existing accidents to prove that energy power is not Figure 22. Ping's Direct Corrections (deletion of "-ing")

- I: So, you saw that 'using' was crossed out and "e" was written above it.

 What did you think about it?
- P: I thought that maybe she wanted me to delete it.
- I: So you deleted "using."
- P: Yes.
- I: Why did you think "e" was written above it?
- P: I don't know. I think that "using nuclear power" is okay too.
- I: What about when you were deleting 'now'? Did you think why you needed to delete it?
- P: I had no idea. I think that 'now' here is fine.

- I: What about changing 'couples' to 'a couple'?
- P: 'A couple' is better than 'couples' but I don't know why.

While I admit that explaining some of these revisions would be difficult, for a native or non-native English speaker, but in this particular case, perhaps with the exception of the last correction of "couples" to "a couple," it is not even clear that Ping understood that her errors were in fact errors. If we consider the potential for this revision to bring about positive change in students' interlanguage, it would be beneficial if the student was provided with an explanation of the difference between "couples" (referring to multiple pairs of people) vs. "a couple" (referring to two things/or people). If Ping checked the dictionary or was asked to check it, she would probably be able to learn about the difference, but if students treat the corrections as editions, possibly because these types of corrections look like edits, it does not even occur for them to try to understand why they were made.

Direct Feedback Provided in a Comment. Direct feedback resulted in both engagement and error awareness when the corrections were provided in a comment box along with an explanation or a hedging. For example, Min received a total of 11 direct corrections in his paper, and the only two with which he engaged were corrections provided in a marginal comment, one with a question mark and one with a hedging. After reading the comment with a hedging "I think" (Figure 23), Min incorporated the feedback in his paper, and instead of just copying the direct phrase provided by the instructor, he altered the suggestion and revised "children's memorial" to "childhood memories," instead of "memories of childhood" as was suggested. This may indicate that when a direct correction is offered as a suggestion with some level of uncertainty, as indicated by

the use of "I think" in this example, students may at least feel the need to consider it before making the change, and may even come up with their own revision as a result.

In order to understand more about your children's memorial you must be curious about what

Pokemon exactly is, how viral is it, and why it is so popular that the series itself became a transcultural phenomenon.

Figure 23. Min's Direct Feedback in a Comment

Perhaps the best example of an effective direct correction that resulted not only in engagement but also in error awareness was recorded in Xin's paper. She received direct feedback in a marginal comment along with a metalinguistic explanation (Figure 24), which not only prompted her to make the change in her draft, but it also resulted in clear understanding of the error. In the screen-capture video recording, Xin is seen reading the comment and deleting the –s from "apparel" in the paper. Xin indicated during the stimulated recall that she understood why she had to delete the –s from the word "apparels." When I asked Xin about it, she stated: "I don't need –s because apparel is plural and singular" (Xin's stimulated recall), and her wording shows that she did not simply read what the feedback said but used her own words, which to me is a clear evidence of error awareness. While it may not be possible to provide such short and neat explanations for all errors, in this case, it proved to be helpful and well understood by the student.

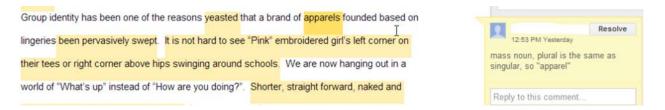


Figure 24. Xin's Direct Feedback in a Comment (Google Document)

Indirect Feedback

When all indirect feedback is combined (error code, comments with or without metalinguistic explanation, highlighting) and compared with direct feedback, on average, students show evidence of engagement with 82% of the indirect feedback compared to 24% of direct feedback. When indirect feedback is analyzed separately, students showed evidence of engagement with error location by highlighting and comments without metalinguistic explanations (100%) and with much of the error code feedback (76%) and comments with metalinguistic explanation (75%) (Table 11).

Table 11

Engagement with Indirect Feedback and Percentage (%) for Each Type

Engagement	Error Code	Comments w/ Explanation	Comments w/o	Highlighting	Total
			Explanation		
Yes	31 (76)	9 (75)	12 (100)	6 (100)	58 (82)
No	10 (24)	3 (25)	0 (0)	0 (0)	13 (18)
Total	41	12	12	6	71

Therefore, the type of indirect feedback appears to have some effect on whether students make a revision or at least attempt to make it, but making the revision did not always correlate with the level of error awareness, especially for error code feedback (59% error awareness compared to 76% engagement) and comments without metalinguistic explanation (42% error awareness compared to 100% engagement) (Table 12). Engagement and error awareness were nearly equal for comments with metalinguistic explanations, which means that when students engaged with this feedback, they also showed evidence of understanding the nature of the error.

Table 12

Error Awareness for Indirect Feedback and Percentage (%) for Each Type

Error Awareness	Error Code	Comments w/ Explanation	Comments w/o	Highlighting	Total
			Explanation		
Yes	24 (59)	8 (67)	5 (42)	6 (100)	43 (61)
No	17 (41)	4 (33)	7 (58)	0 (0)	28 (39)
Total	41	12	12	6	71

Error Location with Error Code. Error codes point out a specific location of the error, but in addition, they also indicate the nature of the error. When analyzing student engagement with error codes, it is evident that some students who received this type of feedback did not know what many of the codes meant, even though they were provided with an error code guide from the instructor. Only one student, Hui, opened up the guide while revising his paper to consult it. Zehao and Dong claimed not to be aware that such a guide existed, and while Ping did, she said it was not easily accessible to her at the time of revision. Students showed evidence of being engaged with 76% of error code feedback, but this percentage varies across students and ranges between 56% for Dong and 100% for two students: Lin and Min who only received one or two error codes, compared to Dong who received nine.

Ignored Errors. In all cases, when students did not indicate any engagement with the error code feedback, they spent almost no time thinking about the error due to not understanding the error code. For example, Dong spent no time thinking about the errors indicated with word choice and verb tense (w.c./v.t.) error codes (Figure 25). While he scrolls over all of the comments indicating that he acknowledges the feedback, he only appears to look at the codes and spends only a few seconds looking at the highlighted

section of the sentence. When asked, Dong said he did not revise the errors since the instructor "did not further explain." Dong seemed a bit frustrated when the comment only included the error code because, as he explained, in his mind, the instructor did not say what was wrong and in some cases, her feedback sounded "too fancy" to him.

prohibition ranging from manufacture, sale, and consumption of alcoholic beverages. It badly

hurts the benefits of merchants who partially or as a whole for selling alcohol. In response, the

Comment []: w.c./v.t.

Figure 25. Dong's Error Code Feedback

Careless Revision. When the engagement is analyzed for the indication of individual students' awareness about the nature of the error, with the exception of Lin and Min, who thought about the error code and examined it in the context of the sentence due to the particular issue it addressed (e.g., word choice, run-on sentence), all other students revised some of the errors without much consideration. This was especially evident in Zehao's, Ping's, and Dong's revisions of error codes indicating an issue with tense (v.t.) and plurality (pl.). It may be because adding an –s to a word after encountering pl. error code does not require much deliberation once the error code is understood, as compared, for example, to the same error that is highlighted, and it is possible to revise it correctly without really considering why the error occurred.

The most illustrative example of this is when Zehao was revising a paragraph that contained seven error codes, most of which indicated an issue with tense or plurality (Figure 26). When he revises the third sentence in which he addresses two errors (v.t. and pl.), he first adds the –ed ending to "had been attack" and then adds the –ed ending to what should have been an –s to the word 'attack.' Not only does he fail to pay attention to the error code pl., but he also fails to read the word 'attack' in its context to notice that it

was a noun. Besides this, Zehao does not recognize that exact issue of the verb tense as he only adds the –ed ending but does not delete the auxiliary "had been." It appears that the instructor tried to draw his attention to the fact that he needed to change the tense and not just add the –ed ending like in the other errors seen in the paragraph because instead of circling just the verb ending, the instructor circled the entire verb form. Unfortunately, Zehao did not pick up on that and instead made the change to the tense, and he only corrected the form of the main verb³.

Nuclear Energy

Many century ago, the biggest country in the world was even 1.5 times bigger than the Soviet Union. Its name was Yuan, a dynasty of China. Yuan had been attack Japan two times and both of the attack were failed and no one came back. In the Second World War, Japan wiped the war. Little people know that they just recover from the colonization of the west. When people thought that Japan would rule the world, American's two atom bombs destroy the dream to rule the world of Japanese. After the Second World War, a lot of country still consider how to recover from the big war, but Japan. They stand up quickly and became a country with huge economic power quickly. 1990s, they even tried to buy Wall Street. In 2010, Fukushima nuclear accident damage this strong country again. They have not recover yet. What a strong Japan! What nuclear energy is who can destroy the confidence of a strong nation?

Figure 26. Zehao's Paragraph Containing Seven Error Codes

Ping, who also received feedback on the hard copy of her paper, showed signs of careless revision of the one error code feedback she engaged with. When reading the error code pl., she did not take the time to actually read the code and assumed that the circle around the word "need" (Figure 27) meant that she needed to change the word "need," not its agreement with the subject "people." While she shows evidence of

94

³ In this case, there is another error of using the passive voice when it should not be used, but since this was not addressed by the instructor, I do not comment on it.

⁴ The error code pl. was clearly visible on the original copy of the paper.

engagement with the feedback, her hastiness prevented her from addressing the actual issue. During the video-stimulated recall, the student indicated that she saw the error code, but that she didn't realize what it meant and she remembered that a tutor had once changed 'need' to 'demand' on one of her other papers and that was why she had made that change.

With the people's need of energy increasing day by day, scientists began to find some new technologies to produce more energy to meet people's need. As a matter of fact, nuclear Figure 27. Ping's Error Code Feedback (pl.)

A final example of what appears to be evidence of careless engagement is Dong's revision of what the instructor indicated as an issue with plurality (see Figure 28), but the actual issue was word form. While Dong correctly adds the –s ending to the word "form," following the instructor's feedback, he does not realize that by adding the –s he was not creating a plural but a third person singular of the verb in present tense. When I asked Dong about this revision, he said: "I added –s to make plural like she said" (videostimulated recall). I believe that Dong's proficiency level and his metalinguistic knowledge would not prevent him from noticing that the change he made was not a revision of a noun, but a verb, but he did not read the word in its context, so he was not able to recognize that. Instead, he simply looks at the error code "pl." and adds the plural ending –s because that is what the instructor indicated.

Figure 28. Dong's Error Code Feedback (pl.)

Inability to See the Error. In some cases, even when students were found to be engaged with error code feedback and showed signs of thinking about the error by either analyzing the sentence and/or checking an online dictionary or an error code guide, they were unable to make a correction (unresolved resolution) because they could not see what the issue was. For example, Hui spent a good amount of time trying to understand the code part of speech (see Figure 29) and he checked the error code guidelines but he still did not understand the issue. As we watch the video, he offered to discuss this episode without my asking, as seen in the extract below:

- H: Actually, this part made me confused because I think that what she wanted to say is the plural for those words, like food and clothes, but her mark is this word "product," so...
- I: "to product" (reading to myself). Oh, and what does the comment say about this word? Is it this one? Part of speech (pos)?
- H: Yeah, and I don't very understand about part of speech.
- I: Did you check the guide about the meaning?
- H: Yes, I checked 'pos'.
- I: So, from this you know that the instructor wanted you to change the part of speech of the word 'product'.
- H: Yes, but I didn't change it.
- H: I think I can insist on verb here.
- I: OK, because you think this is the right word?
- H: Yeah.

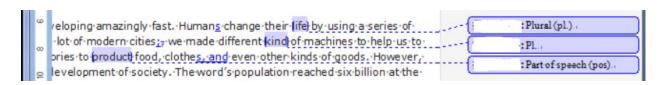


Figure 29. Hui's Error Code Feedback (Part of Speech)

The student did not correct the part of speech of the word "product," but he added an –s to "food" to make it plural as that is what he thought the instructor had wanted him to correct, even though there was nothing that would indicate the need for this change in the instructor's feedback. When we completed the video-stimulated recall, Hui asked me if we could take a look at some of his revisions, and I explained to him that the word "product" is a noun and that he needed to use a verb, which would be "produce." He quickly typed it in his phone dictionary and was surprised that the word "product" was not a verb. In other words, in the student's mind, "to product" was the same as "to produce," and that was the reason he was not able to understand what the problem was. In this case, while the student appears to be actively engaged with the error code feedback, he is unable to understand the nature of his error until our discussion.

Dong also showed evidence of deliberating the error as he was seen returning to one error code feedback (v.t.) three times during revision and reread the sentence trying to figure out how to correct it, but ended up not making any changes to the sentence seen below (Figure 30). While he appeared to understand the error code verb tense, he did not see anything wrong with it. The following is an excerpt from the stimulated recall interview when the student explained the reason for ignoring the comment:

- I: You are reading a comment that says v.t. (verb tense), but it looks like you've moved on and decided not to do anything
- D: Yeah, I ignored that

- I: Why did you decide to ignore this comment?
- D: Because I feel I was right, there was nothing wrong, so...
- I: The comment is verb tense...(looking at the phrase: The article will going to cover)
- D: Yes, verb tense because will going to do something
- D: I think that's the tense I suppose to use, so I insist on that

Based on Dong's explanation for why he thought he was correct, it looks like he might have been partially right as it would not be incorrect to say *The article will cover*, but of course, the student was not aware that *will going to* is not the right form for the simple future tense, which he intended to use.

The article will going to cover fundamental knowledge that we need to know: how interest groups have developed over time, what types of interest groups have evolved, what activities interest groups engage in, what balances out power among interest groups, and finally it addresses what makes interest groups successful.



Figure 30. Dong's Error Code Feedback (v.t.)

Students are especially prone to not seeing what the error is when the error code addresses the issue in a whole sentence. Four students received feedback that indicated that there were problems with "sentence structure," and none of the students resolved the issues correctly, even though they attempted to revise them. For example, Zehao's instructor put one of the sentences in brackets and wrote "sentence structure above it" (Figure 31). After reading the feedback, Zehao changed the word "popular" to "serious" indicating that he did not really understand what it means to change the structure of the sentence. During the video-stimulated recall, Zehao confirmed that when he read the comment, he did not understand what he needed to do. He wanted me to explain to him

what it meant and said that adding "due to the" in the beginning of the sentence would fix the issue ("Due to the increasing use of nuclear energy, pollution and safety of nuclear energy became a popular topic of our daily life"). Zehao said that to him, adding "Due to" does not make a difference as in his mind, the original sentence expressed the same idea. When the sentence and its feedback is analyzed closely, it can be seen that the location of the error code might have been misleading to a student who only tries to figure out the problem by looking at the independent clause: "pollution and safety of nuclear energy became a popular topic of our daily life," which does not have a sentence structure issue. It is only an issue when it is considered as part of the dependent clause (Increasing use of nuclear energy), but the student, most likely, failed to understand the meaning behind the brackets around the whole sentence.

plants in their country. Increasing using of nuclear energy, pollution and safety of nuclear energy became a popular topic of our daily life. Most of people think that nuclear energy is a good key

Figure 31. Zehao's Error Code Feedback⁵.

A similar situation occurred in Dong's revision when he encountered a comment that says "Work on sentence structure" (Figure 32). Dong was seen looking at the comment, but he did not make any revisions. When I asked Dong why he did not make any changes to the sentence structure, he explained that he did not understand what he needed to do. The following is our dialogue about this episode:

I: What about this comment? "Work on sentence structure"? Did you read it?

⁵ It is acknowledged here that "Sent. Structure" was nearly fully spelled out, instead of appearing as a code "ss."

- D: Yes, I read it.
- I: What did you think about it?
- D: Um. This is....
- I: Again, don't try to figure it now, but think about what you thought at that time.
- D: I had no idea.
- I: Did you read the sentence to try to see what she meant?
- D: I did not understand because she just simply saying sentence structure but she doesn't mention what's wrong with that, so I don't understand, so I move on.

It appears that in the cases when the grammar issue was more complex than a single verb tense issue, Dong did not address the error because the feedback did not indicate where the error was or what to do about it.

[There are might some many other types of groups form for purely social or community reasons.]

We notice there must be a kind of affiliation to keep groups intact. Let me put it on another way

Figure 32. Dong's Metalinguistic Feedback

Other error codes can also be not explicit enough for students to understand the nature of the error. Dong was found to be engaged with the error code feedback indicating an issue with word choice, but he did not seem to understand the exact issue with the word choice. At one time, he correctly changed the word "learning" to "studying" (Figure 33) and he indicated that he had understood the difference between the two. However, when he changed "get birth" to "labor" (Figure 34), he did not seem to be aware that both of these word choices were not appropriate in the context. Unlike in

the other example where he was able to substitute "learning" with a synonym, in the case of "get birth," he needed to substitute it with a non-synonymous word, such as "develop." When we discussed the revision with Dong, he said that his original choice was probably "too simple," which indicates that he was not aware that his original word choice was *incorrect* and that he needed to think of a different one for that reason.

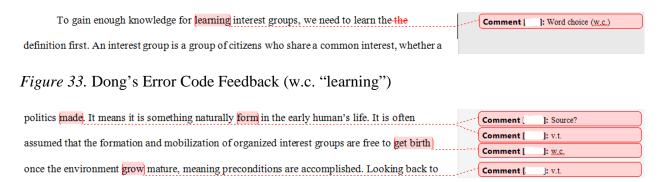


Figure 34. Dong's Error Code Feedback (w.c. "get birth")

Comments with Metalinguistic Explanations. Four of the five students who received comments with metalinguistic explanations, Lin, Qiang, Xin, and Min, showed evidence of engagement after reading the comments and one student, Dong, did not. As in the case of the error code feedback that indicates a sentence structure problem in a whole sentence, most comments that were not addressed or addressed and not understood were general explanations targeting whole sentences and pointing out more than one issue.

Inability to Fully Understand Feedback. Xin received metalinguistic feedback about convoluted syntax, which included a comment about unclear subject and "what is being done" (i.e., verb). I considered this feedback as two separate comments because Xin only addressed the part of the feedback about the subject by adding "elements" which resulted in "One of *elements* which consists of the Black Box…." but not the one

about the verb. Furthermore, the feedback included a detailed suggestion on how to revise the sentence as seen in the comment box below:

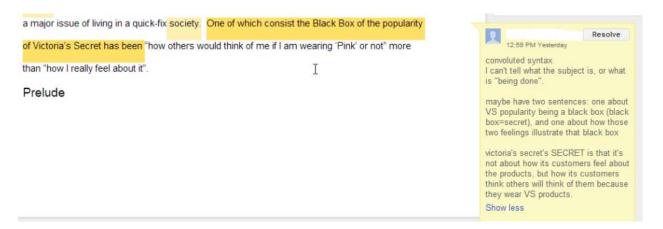


Figure 35. Xin's Metalinguistic Explanation

When I asked Xin to tell me if she understood what the problem was, she said that the instructor did not know what the subject was, so Xin added "the elements" before "which" and said: "So, the subject would be "one of the elements" (video-stimulated recall). Adding 'elements' and changing "or not more" to "rather than" were Xin's only changes based on this feedback at the time of revision. In the video-stimulated recall, she explained that she did not clearly understand what the problem was:

I feel I could understand what I am saying there. I feel I am clear. I think I was trying to say that there is different reasons causing the popularity of Victoria Secret, but the one I am trying to say here is that popularity of Victoria Secret is the black box, but what's inside the black box, there is a lot of different reasoning inside the black box.

It appears that, to Xin, it was not completely clear what the issue with convoluted syntax was despite the instructor's detailed feedback, which also included a specific suggestion to address the issue, but it was not incorporated by the student. There was no indication

during our conversation or in the changes Xin made that she understood the nature of the second issue: "what is being done."

Xin's instructor also indicated the issue with syntax and the need for a better word choice by highlighting the phrase, "been pervasively swept" (see Figure 36), rather than a whole sentence, which is more explicit than when the whole sentence is highlighted.

Upon encountering the comment, Xin changed "been pervasively swept" to "gone pervasively around," which is evidence of engagement with the actual error indicated by the comment, but it could be argued that it did not resolve the issue of syntax. Xin also did not change the word "yeast" (unresolved resolution) even though the instructor indicated that this verb "does not make sense in this context" (Xin's instructor's feedback). I asked Xin why she did not change the other word "yeast," and she explained it as follows:

X: I was just using a metaphor.

I: So you did not change the word because you didn't think it was wrong as a metaphor?

X: Yes.

I: And the word is "yeasted."

X: Yeah, like "yield."

I: Oh, so, you believe that the verb "to yeast" is similar to the verb "to yield."

X: Yes.

X: Are they the same?

I: I don't think they are the same.

X: Are not?

I: What made you think that this is a good word to use?

X: Hmm, I think I remember this word. Sometimes I see people use a noun to work as a verb. But maybe I will change it to yield. I am trying to say that group identity works as an enzyme to increase this phenomenon happen[ing].

Based on this discussion, it appears that at the time of revision, Xin did not realize that it was necessarily wrong to use "yeast" in her sentence. In this case, the lack of revision of this particular word was not due to the lack of effort, but because she did not think it was wrong. Xin later indicated to me that she did not understand why she had to make the changes to syntax or why her metaphors "don't go together."

Group identity has been one of the reasons which yeasted a brand of apparel founded based on lingeries been pervasively swept. It is not hard to see "Pink" embroidered girl's left corner on their tees or right corner above hips swinging around schools. We are now hanging out in a world of "What's up" instead of "How are you doing?". Shorter, straight forward, naked and contagious, the 90's way of interacting. "I like your top.", "I like your tank" are the greeting

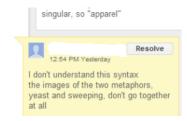


Figure 36. Xin's Indirect Comment

Simple, Effective Explanations. Most of the comments with metalinguistic explanations that resulted in both engagement and error awareness were comments that targeted relatively simple issues and were clearly expressed in the comment. In comparison to Xin's rather complex issue, Lin's instructor made a comment about the need to "use past tense" (Figure 37) and Lin was clearly engaged with this feedback. The screen-capture video reveals that Lin came back to this feedback on a couple of different occasions before making any changes, and it appeared that she was unsure of what to do. Even though Lin said she was confused about the need for the past tense in this context, she decided to follow the feedback in the comment and revised all the verbs to the past form, which is evidence of both engagement and error awareness.

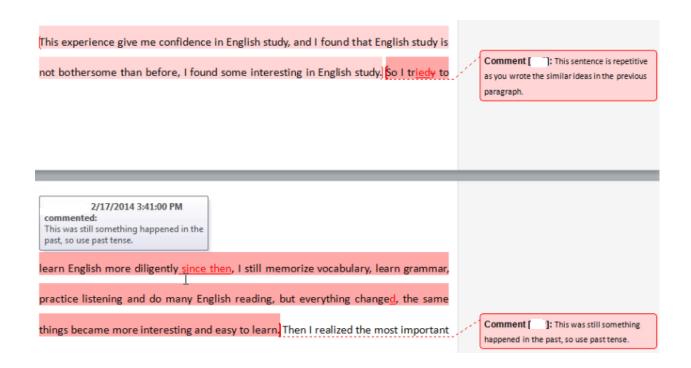


Figure 37. Lin's Comment with Metalinguistic Explanation ("...use past tense.")

Min also showed evidence of both engagement and error awareness when revising comments containing metalinguistic explanations. One such comment referred to his use of tense as seen in Figure 38, and when I asked Min about it, he indicated that he read the sentence and realized right away that he needed to use past tense like in the previous sentence in his paper. When I asked Min about the other comment in which the instructor indicated that a verb was missing (Figure 38), Min said that while "After on sale" sounded good to him, he understood that it is better to include the verb and inserted "placing the product," which resulted in a prepositional phrase "After *placing the product* on sale,…."

in Japanese Role-Playing Game (RPG) market in 1996 when I was two (<u>Pokemon</u> Case Study).

After on sale, it virally separates rapidly in every comer of the world and became a worldwide comment []: Verb missing pop culture phenomenon.

Figure 38. Min's Indirect Feedback ("Use tense consistently")

Comments without Metalinguistic Explanation. Perhaps surprisingly, students engaged with all 12 of the comments without any explanations, even though they were much more general than the comments that contained some explanation described above. Most of the comments without explanations contained phrases, such as "Rephrase," "I don't understand this," or "Try rewording," or "This is unclear." Upon reading such comments, most students made a revision, or at least attempted to make a revision. In one case when the student, Qiang, attempted to make a revision after encountering the comment "Awkward Sentence," he could not understand what the instructor wanted him to do and left the issue unresolved. Even though after reading the comment Qiang checked the meaning of the word 'awkward' in an online dictionary (evidence of engagement), upon translating it, he did not make any revisions to the sentence. He actually understood that the instructor was telling him that his sentence was 'embarrassing'. He was seen smiling in the video when we encountered this feedback, and he confirmed that he smiled when he read the translation. More importantly, however, he indicated that he did not know what was awkward (or rather embarrassing) in his sentence and moved on to another feedback point.

Error Avoidance. Upon reading a comment which highlights a whole sentence, some students were seen to rewrite their sentence completely, essentially deleting the error. For example, Lin, who received a comment "Rephrase this sentence" (Figure 39), deleted the sentence and wrote: "I am eager to use English in my daily life." Even though the instructor made some changes to correct it, Lin felt that she needed to rewrite it.

While such a revision is certainly evidence of engagement, it is clear that the student is

not really engaging with the issue that was pointed out, essentially indicating lack of understanding of the nature of the error.

other world. And I am too impatient to wait communicate with the world, and

English is a good tool for me. Then I tried to make friends all over the world and we

Figure 39. Lin's Comment without Metalinguistic Explanation ("Rephrase")

While the student makes the revision as expected by the comment, it can be argued that she is not correcting the actual error but is avoiding it by expressing the idea differently. When I asked Lin about the comment, she indicated that she was not sure why her original sentence was wrong and that she rewrote it believing (most likely correctly) that it was what the instructor indicated. The following is the exchange with Lin about the original sentence, seen in Figure 39 above, which she deleted:

- L: I think to....too, is I want to do this, it's to....too structure.
- I: Which structure? With this "to" or that "too"?
- L: This to....too. I have done it in my grammar class.
- L: What did you want to say?
- L: I don't want to wait so I don't have patience. I don't want to do it, I want to communicate with other quickly.
- I: So you wanted to say "I am too impatient to communicate with the world."
- L: Yeah, so this sentence is a correct sentence?

It appears that rather than helping Lin consolidate the knowledge she gained in the grammar class and apply it in her writing, the advice to rephrase the sentence might have made the student confused about it. While Lin clearly followed the advice in the comment, she did not understand what the exact nature of the error was.

Revision by Simplification. Although Zehao's revision based on a general comment targeting a whole sentence did not lead him to delete it, it resulted in a less complex sentence compared to the original one. First, when Zehao misread the instructor's comment "Try rewording" (Figure 40) as "Try reading," and even though he did not understand what the instructor meant by it, he attempted to revise it. His revision resulted in the following sentences: "We lack resources due to increasing human population nowadays. Human beings try to find a new way to replace the traditional resource like, coal, gas and oil." While the two sentences are grammatically correct, they are undoubtedly less complex. Therefore, on the one hand, this is an example of a correct revision even without understanding of the comment (or rather with a different interpretation than intended). On the other hand, this example indicates that when students are asked to revise complex sentences that contain errors, rather than just fixing the error and maintaining the complex structure of the sentence, they may end up with less complex, albeit grammatically correct sentences.

Lack of the energy due to increasing human population, human beings try to find a new way to replace the traditional resource like, coal, gas and oil. The traditional resource not only make

Figure 40. Zehao's Comment w/o Metalinguistic Explanation ("Try rewording")

Inability to Understand Feedback. Just like Zehao, Hui did not understand the comment of his instructor, but it encouraged him to think about his error, although he ended up making the revision that did not address the actual error. Hui's instructor highlighted the word "Commission" (Figure 41) and she asked in the marginal comment "What's this?" Hui indicated that while he thought about this error, he did not see

anything wrong with the word "Commission" and how it was used. The following is an excerpt from our video-stimulated interview:

- H: Actually, I am thinking about it "What is that?" cause I think I should use the word here.
- I: You think this is right?
- H: Yeah, this is the same question for me, "What's this?" (chuckle)
- I: Oh, what does this comment mean?
- H: Yeah.
- I: Oh, but this is a quote.
- H: Yeah, this is author's.
- H: This one I think she was confused because Commission she didn't know what it is but actually this 'commission' has a name, so I added the name.

It appears that in the student's mind, Commission meant Commissioner, so the instructor's comment was not understood. However, in an effort to clarify what he meant, Hui added the name of the commissioner after the word 'commission,' which, I believe, addresses part of the instructor's confusion, namely that "Commission" was a person.

(Pijawka-7). Commission also said that "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own heeds" in 1987...

Figure 41. Hui's Comment without Metalinguistic Explanation ("What's this?")

Error Location by Highlighting. The error location feedback was only provided to one student, Min, who showed evidence of engagement and error awareness with all six highlighted errors. As compared to other types of feedback provided by Min's instructor in his paper, this type of feedback was provided to indicate a specific issue,

such as verb tense errors or subject-verb agreement. Out of the six errors that were highlighted, four were issues of plurality when the –s needed to be added, one was a past tense form, and one an issue with the form of an adjective, the same one adjective that was corrected for the student through track changes a few lines above. For Min, who appeared to have an advanced English proficiency level, these types of errors could be considered minor issues. When I asked Min about these errors, he indicated that they were mostly made by mistake, so they were most likely 'performance mistakes,' rather than errors in competence, which learners are unlikely to self-correct (Brown, 1994). Min referred to these errors as "accident mistakes" himself and said, "I just automatically thought it is accident mistake for me and I just need to be careful next time" (April 30, 2014).

The screen-capture video shows Min revising most of the errors within several seconds after reading the sentence or just a phrase in which the error was highlighted. When I asked Min about the first of the highlighted errors, "name" (Figure 42), he said: "I know what the mistake was. I made it wrong not because of lack of knowledges but I just incidentally did it" (April 30, 2014). In this case, the word "name" was part of the phrase "hundreds of," and it was enough for Min to quickly see that the plural was needed without reading the rest of the sentence.

type of toy which people in that age probably never seen or heard before. Definitely, for me and people in my age, we are familiar with Pokemon like the back of our hands, and we clearly remember those hundreds of name of different monsters in Pokemon (I am kind of surprised about this). In order to understand more about your children's memorial childhood, you must be

Figure 42. Min's Error Location Feedback ("name")

Correcting Min's other highlighted error "release" (Figure 43) took him a little longer because, as he indicated, he needed to read the part of the sentence that preceded the highlighted word, which appears to be a crucial difference between locating the error by highlighting and locating it with the error code, especially as observed in Zehao's revision. Once Zehao figured out that he needed to use the past tense, he changed all the verbs by adding –ed endings and even a noun that was marked with a different code. While Zehao was aware of the nature of the error, I would argue that Min's WCF can facilitate a deeper level of awareness, which I did not observe with most of the revisions based on the error code feedback.

children in school age, whereas its strong influence is undeniable. Satoshi Tajiri, the author of Pokemon, spent six years to develop the game and finally release it in Japanese Role-Playing Game (RPG) market in 1996 when I was two(Pokemon Case Study). After on sale, it virally

Figure 43. Min's Error Location Feedback ("release")

Conclusion

In this chapter, I demonstrate that a large percentage of direct feedback provided via track changes was not carefully viewed or it was simply ignored, with the exception of one student who chose to transfer all the corrections received via track-changes to his original draft. When direct feedback was provided in the marginal comment in the electronic draft, as in Xin's draft, or handwritten on the hard copy of the paper, students at least noticed the instructor's corrections and revised the errors in their text (evidence of engagement). However, students' engagement with this feedback type did not result in error awareness as the revision was often made without considering the reason for the change.

In contrast to direct feedback, all types of indirect feedback were found to result in more engagement. However, more engagement did not always lead to correct resolution as students were often not able to understand the feedback or locate the issue that it indicated. In addition, on a few occasions, the correct resolution did not lead to understanding of the nature of the error, especially for comments without any explanations. One apparent reason is that students can make a correct revision that does not address the actual error.

When specific feedback types are compared in terms of their potential to lead to error awareness, i.e., awareness of the issue indicated by WCF, I found that unless the feedback provides a clear explanation, such as "mass noun, plural is the same as singular," or when the feedback is provided on errors related to tense or plurality (e.g., highlighting a singular noun when plural is needed), students are unlikely to spend enough time to understand what the issue is.

Finally, the analysis of student engagement with comments with and without metalinguistic explanation indicates that students were more likely to address the issue or attempt to address it when the comment did not include explanations. Although students were more likely to revise or make an attempt at revision (i.e., engage) when no explanation was provided, they tended to make a revision that did not address the actual problem. However, when the issue was pointed out by the instructor in the comment with metalinguistic explanation, students revised it only when they understood the nature of the problem, as indicated by the same percentage for error awareness, perhaps believing that they would not be able to address the issue that they do not understand.

CHAPTER 5

SOCIO-CONTEXTUAL FACTORS INFLUENCING STUDENT'S ENGAGEMENT WITH WCF

In this chapter, I present the analysis of data from interviews with students and instructors to provide insights about socio-contextual factors that appear to affect students' engagement with WCF. My analysis reveals that some students' attitudes toward grammar accuracy have been influenced by external factors, such as the instructor's grading policy. When students felt that grammar accuracy was not important to their instructors and/or their grade, they appeared less determined to correct grammar issues in their paper. If grammar accuracy was perceived as important, however, students were found to be more determined to resolve issues related to grammar by, for instance, seeking help from instructors and tutors. In order to understand the reasons for the students' perceptions, I begin the chapter by briefly explaining the course policy regarding grading based on grammar and its implementation by the instructors. I then present the case studies of the eight student participants to demonstrate the extent to which their engagement with feedback appeared to be influenced by the policy and the larger context, which includes other courses and students' experiences at The Writing Center.

Socio-Contextual Background

Grading Based on Grammar in FYC and Other Courses

In an effort to acknowledge that language development is a slow process which may not be noticeable in the course of the semester even if grammar instruction and/or WCF feedback is provided, the Writing Programs revised its standard policy to provide

specific guidelines for grading students' papers in the FYC course based on grammatical errors:

The Writing Programs Mission supports grading that is process-centered rather than product-centered. Neither individual paper grades nor final course grades should be based on grammatical issues. Under no circumstances should students fail Writing Programs courses solely on the basis of grammatical issues. (Grammatical issues do not include genre-specific conventions, such as formatting, headings, capitalization, punctuation marks or documentation of sources.) (p. 14)

Whereas FYC instructors are provided with specific guidelines aimed at providing a more ethical treatment of international students, instructors in other departments may not share the same perspective, and they may be unable to look beyond the surface issues and recognize the knowledge behind them. Although I cannot confirm how students' grades are specifically affected by grammar in other courses, students and the instructors reported that grammar appears to be a key criterion based on which students' assignments are graded. Jennifer gives an example of the instructor in a different department who laments about students' skills when it comes to grammar:

I know we have the grading policy and we're not supposed to grade on [grammar] but I am wondering if we are not harming the students later on in other classes. I know that the instructors in other classes are paying attention to issues like that and this specific instructor has asked me how I deal with writing issues. And he's like, "Sometimes I get students who enroll and their skills are not strong enough,

and I encourage them to drop the class," and I wonder how often that's happening. (April 9, 2014)

Chen, another instructor, also recalled a situation when one of her students asked for WCF on her paper in an environmental studies class taught by a Korean professor.

Grammar accuracy appeared to be a major grading criterion, and a student could fail a paper with more than four grammatical errors. While the Writing Programs Grading Policy is in place to avoid such situations from occurring (i.e. failing a course due to grammar issues), it is important to recognize that students' experiences outside of the English department may be drastically different, and as I will demonstrate later, the two different perspectives have an influence on students' attitudes and, in some cases, effort put on revising grammatical issues.

The FYC Instructors' Approach to Addressing Grammar Issues

While all of the instructors in the current study provided some WCF in students' papers, they all indicated that grammar was not a significant part of their teaching and most of the students in the study did not receive WCF beyond the one paper I examined, nor were grammar issues addressed in class in any other way. Four students received WCF on one of their projects (Lin, Qiang, Dong, and Hui), two on all three projects on the first page of their paper (Zehao and Ping), and two only when they asked (Min and Xin). Lisa, Min's and Xin's instructor, noticed that not all of her students actually use the feedback she provides, and based on her experience and her belief that students may not pay attention to WCF if their grammar accuracy is not part of their grade, she only provides WCF only when students request it.

The four instructors interviewed for the study expressed that the grading policy may affect how grammar issues are addressed in class. Lisa believes that aside from protecting students from failing a class only due to grammar issues, it also emphasizes that FYC is not a grammar class, and, consequently, takes the focus away from grammar:

This is an interesting policy to deal with, because how do we give grammar feedback and have it seem meaningful if it isn't going to be graded, and that's actually not what the policy says; the policy is that a student shouldn't fail a class simply because of grammar... I think part of the motivation for it is to push the focus in our classes to remind everyone that we're teaching writing, not grammar, and a lot of us instructors haven't taken formal grammar classes. We're proficient writers ourselves, which doesn't necessarily mean that we can always give them the kind of grammar feedback that they need. (April 18, 2014)

While the policy does not specify whether and to what extent instructors should address grammar issues, because it is not graded, it may indirectly provide a reason for the instructors to ignore grammar issues and focus on teaching "writing."

One instructor, Erin, shared that as a result of the grading policy, she does not address grammatical issues the same way she used to, believing that it may be confusing to students:

But I actually give them a lot of grammar support, not necessarily in comments, but face-to-face, and I used to actually have grammar lessons in class, which they were like, oh, no way. Maybe it's just my perception but they're over it, they don't want it....And we are not grading on grammar, so it they may be wondering

why grammar is being taught. Yeah, I think I may be sending mixed messages and I do tell them I don't grade on grammar. (April 14, 2014)

Other instructors, like Jennifer, who provide WCF on at least a portion of the paper do not hold students accountable for the revisions, hoping that they attend to the issues that she points out in her feedback. While this seems to be directly related to the grading policy, I do not believe that holding students accountable for making revisions based on the feedback that was provided is the same issue as failing a student in class or even just failing a paper with extensive grammar issues when no WCF is provided. In other words, while it is reasonable to expect that the grade should not be affected by grammar in one particular paper if students did not receive any feedback related to grammar, it may be reasonable to expect that students at least make an effort to make revisions in their revised draft and for the instructors to reflect that effort in the grade to some extent. As I have shown in the previous chapter, however, despite students' effort, they may not be able to make accurate corrections or, in some cases, understand what they need to correct, which is why it is important to take that into consideration when grading.

One possible explanation for why the instructors do not address grammar issues may be their belief in the pedagogical principle that we should teach what we assess and assess what we teach. Lisa pointed out during our interview that feedback is a form of assessment, regardless of whether it is attached to a grade or not. However, it seems that assessment without grading may not appear pedagogically effective for some instructors, especially those who may have noticed that the only assessment students perceive as important is the one attached to a grade.

Based on my interviews with the instructors, another possible reason for not providing more grammar feedback or addressing grammar issues in class may be that instructors do not feel they can devote their time to addressing grammar as it may compromise the amount of attention they can pay to other, perhaps more important issues, as was expressed by one of the instructors, Chen:

Because we have limited time with the students and there is so much that I want to cover, content and organization, which I think are more important than grammar, and I don't have enough time to provide students with grammar feedback. (April 18, 2014)

WCF at The Writing Center

Since grammar teaching and, to some extent, WCF, do not represent a significant part of the FYC course, all instructors indicated that they encouraged their students to visit The Writing Center. However, it may be important to note that students' experiences at The Writing Center are varied—while some students only received grammar feedback, others reported receiving none. For example, Min indicated that the tutors did not or could not help them with grammar:

Usually I went to the writing center, I don't know why, but they normally just don't work on the grammar, and I don't know why....Usually they just avoid to talk about grammar. Or they don't want to spend the time to talk about it. (Final Interview, April 2014)

Min's experience is not an isolated incident as Lisa, one of the instructors, recalled a situation told by one of her students:

One student came back from the writing center frustrated because she was told that they can't give her any grammar feedback and she made it clear that she didn't want them to do error correction, just to help her identity errors and strategies for revising, but they couldn't or wouldn't do that. (April 18, 2014)

Out of the five students who reported visiting The Writing Center for at least one of their projects, Min was the only student who did not receive any grammar support. However, Ping reported that the tutors could only comment on her grammar on the first two pages of her paper. In contrast, Zehao noted that the only feedback he received was related to grammar and formatting, and the other two students, Yanlin and Hui, received grammar support when they asked for it. This is important to take into consideration when exploring students' engagement with WCF as when their experiences with WCF are limited in the course and, in addition, they do not receive any grammar support outside of class, I found that it may be a signal to students that grammar accuracy is not very important, as is discussed below.

The Effects of the Context on Students' Attitudes toward Grammar Accuracy and Engagement with WCF

Before presenting student case studies and how they were individually affected by the context, I briefly share instructors' perspectives on students' attitudes toward grammar and, in a separate section, their perceptions of students' engagement with WCF. Without my inclination to discuss the larger context, the effect of The Writing Programs' grading policy was the topic that the instructors gravitated toward discussing.

Instructors' Perceptions of Students' Attitudes toward Grammar Accuracy

Generally, the instructors reported that while their students may be concerned about grammar issues, they do not express a lot of interest in learning about their grammar issues, especially as the semester progresses. For example, Chen noticed that whereas in the beginning of the semester, her students asked for grammar feedback, toward the end, they were more concerned about other issues, which they believed affected the quality of the paper more:

....in the beginning of the semester most of the students ask for grammar feedback. However, I think that since during the semester we do not focus on grammar at all, now, at the end of the semester, the students don't say they want grammar feedback. They say, please give me feedback on my transitions and how I can organize my writing, which are two things we focus on in class. (April 18, 2014)

Chen later speculated on the reasons for this to occur:

Students realize that if they focus on ideas, they get better results (e.g., longer paper) but if they focus on grammar, it is not going to help them in any way. And combined with our grading policy, they value [focus on ideas] even more. (April 18, 2014)

According to Jennifer, students generally do not ask for help with grammar even though she encourages them to ask for grammar help if they need it. This was expressed by Jennifer when I asked if her students see her outside of class, and after she explained that she meets with them once during the semester for a student-instructor conference to

discuss their assignment, she indicated that grammar is not what they are interested in discussing:

But when we meet, it's not just grammar; in fact, it's very little grammar. But I always encourage my students to come in if they have questions. I would say I don't often speak with my students specifically about grammar. (April 9, 2014) When I asked Jennifer if her students ever ask for help with grammar, she said that it occurred rarely and that most students were more interested in learning about specific areas they focus on in class:

Sometimes students ask me about additional resources, where can I learn more about that, and I usually refer them to Purdue Owl website, direct them to other language sites, but I don't get a lot of questions. The most questions I get are about the choice of topic, research, but not many about grammar. (April 9, 2014)

One instructor, Lisa, believes that many of her students expect her to correct their errors for them: "I think students expect a lot of grammar feedback and what students mean by grammar feedback is corrections. They want someone to edit their paper for them" (April 18, 2014). This is an interesting observation, as I believe, unfortunately, that it confirms my general observation that students see WCF as a way to quickly "fix-up" their papers, rather than an opportunity for them to learn from it and apply the knowledge gained from it in their subsequent writing.

Instructors' Perceptions on Students' Engagement with WCF

When I asked the four instructors about their perceptions of how students use their feedback and what they believe influences their engagement with it, their responses varied, but most of them observed that students may not be putting a lot of effort in

revision as a result of their grading policy. For example, Lisa observed that sometimes her students "just don't bother to correct serious issues" (April 18, 2014). Lisa then speculated that students put effort in the area of their writing that they feel will have a bigger impact on their grade:

Sometimes those choices are about simple pragmatics; they only have so much time to work on their paper, so they may decide to focus on other things that they think will going to impact their grade more. They may not do it because they don't know how to fix it, so they look at it and think this is good enough. (April 18, 2014)

When I asked Jennifer in the very first question of the interview, "What is your overall perception of how students use the feedback that you provide?" she responded:

I guess I don't have really high expectations for that especially with the English department's grading policy because that's not really what we want to focus on and what's important. So my expectations are that they will gradually improve, hopefully, in their grammar. I hope that they at least read it and think about. (April 9, 2014)

Jennifer made a similar observation to Lisa that some of her students are not putting a lot of effort in their revision as she noticed that some students' final drafts do not indicate any sign of revision:

Sometimes the final product shows that they've made improvements in those areas, depends on student to student, and it's clear sometimes who's put effort in and who maybe didn't look at it at all. I guess I at least hope that they'll correct

what I explicitly commented on and I do get a little frustrated sometimes when I see the exact same errors that I definitely commented on. (April 9, 2014)

Erin was the only instructor who stated several times during the interview that she believed her support with grammar was helpful and integrated well into students' revised text:

Um, I think I'm just really optimistic. I have very good students this semester and I am hoping that it's because of my instruction. I think they have some many different things jumbling around in their head that I think they just need to have a reminder; I think [WCF] is helpful... In general, I see improvement with all my students and the grammar issues are not as outstanding later on in the semester, and hopefully it's due to my feedback. (April 14, 2015)

While Erin generally feels that her feedback is helpful to students, she also noted that she does not follow through with students to check how they responded to the specific issues pointed out in her feedback.

Based on the instructors' perspectives, students may be influenced by the context differently, and it may, as Jennifer concluded, be caused by students' levels of intrinsic motivation. Students who are not easily affected by external factors, such as grading, will continue to pay attention to grammar and WCF simply because it is important to them.

Jennifer explained it in the following way:

Really, I think it's a matter of what they want to focus on. I think I do have some impact on that since I tell them that grammar is not nearly as important as content and we focus on those things more in class, so I think the strongest indicator on

whether they'll improve on grammar or not is their intrinsic motivation. (April 9, 2014).

Case Studies

The eight case studies presented below demonstrate how the individual students' attitudes toward WCF, and consequently their engagement with it, were affected by the context in which they received it. Four students, Qiang, Dong, Ping, and Lin appeared to be mostly affected by the impact of grammar accuracy on their grade. Qiang and Dong believed that grammar was not important for their grade, and they did not appear to put a lot of effort into their revision as a result. Ping, who was harshly penalized for grammar errors in another course, appeared highly motivated to seek help with grammar issues and cared about addressing all the issues pointed out in her instructor's feedback. While Qiang, Dong, and Ping were largely affected by the grading policy, Lin, despite her instructor's lenient grading based on grammar, still believed it can affect her grade to some extent. As a result, she put effort into revision and sought help with grammar outside of class.

Grading did not appear to be an issue for the other four students. However, based on the different experiences in the FYC class as well as outside of class, two of them, Min and Xin, were found to question the importance of grammar accuracy in their writing, which can be attributed to the fact that their instructors did not address grammar issues unless they asked. Hui and Zehao, however, felt that grammar accuracy was important to their instructors and tutors as most of the feedback (even if it was only on the first page) they received concerned grammar issues, rather than content for example. Therefore, the extent to which Hui and Zehao's instructors and tutors addressed grammar

issues in their writing appeared to result in more importance attributed to grammar and the extent to which they engaged with WCF.

Qiang

At the beginning of the semester, Qiang indicated that he wished that his instructor directly corrected every error in his text, and for the one project that was recorded for the study, his instructor did indeed do that. At the end of the semester, I asked Qiang about his understanding of the WCF he found in his paper, he said: "I think in most of time I don't know why? I just agree and pass." Seeking to learn if Qiang sought any help with understanding of the feedback, I asked if he had ever been to The Writing Center or asked the instructor to explain the corrections which he did not understand, and Qiang replied: "The instructor just told me that grammar will not a lot affect my grade; I want to get good grade, so I don't have to go to the writing center or ask instructor" (Final Interview, April 3, 2014).

Qiang expressed that he appreciated the fact that his grade was not affected by the grammar issues in his paper, but he also expressed that he was feeling a little torn between the benefit of not being accountable for grammar errors and his desire to improve grammar. This was indicated by Qiang at the very end of the interview when I asked if there was anything else he would like me to know, said:

Q: I think this class is easy.

I: Why?

Q: Because this class is not focused on grammar. And I think grammar is a big problem for me.

I: OK, can you tell me more about that? How do you plan to improve your grammar?

Q: Next semester.

I: Next semester? Why do you think that?

Q: I think ENG [107] will more focus on grammar, I don't know, I guess.

I: Would you want your next class to be more focused on grammar?

Q: No.

I: You like it the way it is now?

Q: On the one hand, I want to improve my grammar but, on the other, it is a problem and I don't want my grade to bad.

I: Oh, you don't want your grade to be affected by your grammar.

Q: Yes.

My exchange with Qiang reveals a couple of important issues. First, it is clear that Qiang is aware of the fact that if he were graded based on his grammar errors he would not have a satisfactory grade in the class. More importantly, however, by stating that the class is easy, it appears to me that Qiang is not exerting as much effort as he would have if at least his revisions had affected his grade to some degree.

Dong

In both the initial and final interviews, Dong stated grammar is "very important" to him. However, in the final interview he added that he did not feel that grammar was important in his ENG 107, and even less important in other courses. Because his teachers do not care about grammar in his writing, he devotes less effort to issues related to grammar, even though he fundamentally believes that grammar is very important:

Yeah, like I said before, I put so much effort in grammar when I start, um, taking that class, and a new instructor, but since I found out instructor barely put the intention on the grammar, so I put less effort on grammar. (Final Interview, April 25, 2014).

I asked Dong about his other classes and if he thought that other instructors put more emphasis on grammar when grading. He said that none of his instructors pay attention to grammar and he added: "You guys don't grade it, so why should I pay that much effort on that?" (Final Interview, April 25, 2014).

Dong also indicated a little resentment about grading without penalizing students for grammatical errors. At the end of the interview, after I asked Dong if he wanted to share anything else, he stated:

I am just very curious how instructors grade by the rubric. I feel there are many students in our class, their English is not as strong as I am, but their grade is always higher than I get. So, I feel it doesn't make sense at all. I look at their paper to see why they got a 90 when I barely got 80 and they do not even put any effort in grammar; they just write whatever they want. And once I found that, I was like, if you grade that way, fine, I will just write it that way. Also, even their way of expressing ideas is so simple... (Final Interview, April 25, 2014).

Dong may have been a little resentful about his grade perhaps expecting that his comparatively high level of grammar accuracy should be somehow reflected in his grade.

It should be noted that in addition to Dong's experiences during the semester which the study was conducted, Dong's perspectives on grammar and learning from

WCF were also affected by his previous experiences. In the initial interview, Dong stated:

I don't think I can improve grammar, I am too old. I am serious. You just cannot totally avoid grammar errors. It is important but I don't think I can avoid grammar errors. I don't think that will happen. (January 21, 2015)

Dong, who was 19 years old at the time of the interview, appeared to have a frustrating experience with grammar correction in his high-school English course in the U.S., where his instructor corrected all of his mistakes for him. Unfortunately, Dong noticed that he continued making the same mistakes: "Even though he did the correction for me I was trying to look at it and to memorize what are the issues, like I still get the same error" (January, 21). Having had such experience in the past, it appears hardly surprising that this particular student did not pay any attention to the direct corrections in his paper. Despite his rather negative experience with error correction in the past, Dong expressed that he was hoping to receive a lot of WCF and work on improving his grammar. However, it appears that his effort may have been influenced by the lack of recognition for his effort in trying to write accurately.

Ping

When students are harshly penalized for their grammar errors in other courses, as in Ping's case, they seek help outside of class to help them with their grammar issues. For Ping, grammar was very important because she noticed that instructors in her other classes have a strict grading policy and penalize students for many grammatical mistakes. Ping explains it below:

P: I pay more attention to grammar because the TAs are so strict about it.

I: What TAs?

P: In a different courses. They are grading the papers.

I: Are they stricter about grammar than the instructor in ENG 107?

P: Yes.

P: Oh, it's so strict and we can't find our own grammar issues sometimes and we need to look for another native to check it.

I: And do you get grammar feedback in that course?

P: No, they just say that we need to check the grammar and grade it lower if grammar is bad.

As a result of the strict grading based on grammar in the other courses, Ping reported to be focused on grammar accuracy in her writing and seemed to be careful about making mistakes. I asked Ping how she felt about the WCF she received in the course, and she responded that she received less WCF on the last project recorded for the study believing that she "spent more time and double checked [the paper]" (April 25, 2015). This indicates to me that Ping made an effort to submit a grammar free paper to her instructor.

While some students indicated that that they did not feel they needed to seek help with grammar outside of class, Ping was motivated to go to the Writing Center because her grade depended on grammar. As in Min's case, Ping said that the tutors at The Writing Center did not focus on grammar issues, but she did receive WCF once on the first two pages of her paper, which, according to Ping, was not enough for the TA who graded her paper as the TA commented that Ping had many grammatical errors that she needed to correct even after receiving help at The Writing Center. It appears that Ping

had a lot of incentive from the TA in the other course, and it appeared to affect how much help she sought outside of class.

Lin

In the beginning of the semester, Lin expressed a desire to have all of her errors pointed out and she was hoping that the instructor would indicate how to correct it: "I want to know everything is wrong and I want to tell me what is right" (January 27, 2014). Lin received WCF on the first project only and most of her feedback was direct (via track changes). Lin also received a lot of WCF at the Writing Center: "Every times I went to writing center, just like that I give them the paper, and they use a pen to circle all of the mistakes and I think, Oh, a lot of mistakes (laughing) (Final Interview, April 27, 2014). Not only did Lin receive ample WCF in one of her papers in class, she also received it at The Writing Center, which I believe influenced how important she thought grammar accuracy was.

When I asked her how she felt about the WCF she received, she stated: "Oh, I think sometime I upset, why I have many mistakes, but when I change all of this, I think, oh, this paper will be good and I can get a good grade (Final Interview, April 27, 2014). I knew that the instructor informed the students in class that grammar would not affect their grades (unless their papers are incomprehensible), so I asked Lin about her understanding of the grading policy, and she said: "I think most grade depend on structure and the content but if I have many many grammar mistake I will get down grade" (Final Interview, April 27, 2014). It appears that Lin might have also been motivated to do well by believing that grammar accuracy impacts her grade. As a result,

Lin still felt she needed to visit The Writing Center to get help with grammar on the other two projects.

It should also be noted that Lin appeared more concerned about simply impressing her instructor. She expressed to me that she cared about what her instructor thought about her ability to write accurately, stating: "I didn't want my teacher to think a lot of mistakes, I want [her] to think is right (Final Interview, April 25, 2014). While it is clear that Lin was motivated to write accurately by her belief that her grade will be impacted by grammar if she makes many mistakes, it appears that she may have also been motivated by her desire to impress, or please, her instructor.

Min

Min's attitude toward grammar accuracy appeared to change over the course of the semester. In the initial interview, Min indicated that grammar was important to him and that he wanted to work on improving it in class. Min stated: "...grammar is the primary thing that should be 100% correct...and that's why lots of international students are hungry for grammar improvement" (January 29, 2013). However, in the final interview when I asked Min if he had anything else to share before we end, "Is grammar that important?" He also added: "...if what you write is readable, I think that's enough."

Min, who was one of Lisa's students, received grammar feedback on his last project only, and he admitted that if he had not agreed to participate in the study, he would have not received any grammar feedback because he needed to specifically ask for it. When I asked Min to speculate why his instructor only provided grammar feedback when students asked for it, Min replied:

She didn't say but I think it is because we are required to take the class by having [good] grammar. It's like when you take a calculus class, you would not ask your instructor those basic geometrical questions. In my point of view, grammar is all. I mean, we still have a lot of grammar mistakes when we try to write something, but I think grammar is so fundamental [possibly meaning basic] that you are not expected by the professor to ask for grammar question. (Final Interview, April 30, 2014)

Min's answer indicates that he felt that grammar may be too basic to address in FYC courses, and concluded that he should not ask his professor for help with grammar.

Based on my conversation with Min, I had an impression that even though he was concerned about his grammar and was motivated to improve it, he learned that grammar is not very important for his instructor and tutors and may have, consequently, become less concerned with grammar issues.

Xin

Just like Min, Xin appeared less concerned with grammar issues at the end of the semester. When in the beginning of the interview I asked how important grammar and WCF was, Xin responded: I think that grammar is logical thinking because sometimes you use wrong connection and word order and it doesn't make sense, it doesn't show logic there (Initial Interview, January 29, 2014). Based on my clarification elicited after this response, I interpreted it as a sign that improving grammar was important for Xin. When in the final interview I asked her how much attention she devoted to grammar issues, she indicated that she did not focus on grammar a lot and that "the most important thing is to communicate." When I inquired about how important the WCF that she

received was, she answered: "I did look on that [feedback] but that's not the whole thing I focus on" (Final Interview, May 2, 2014).

Xin also received WCF only on the last writing project and told me that she was planning to ask for more feedback but that she forgot to ask for it. It appears that she did not feel that grammar accuracy was especially important to her English instructor as well as her other instructors that semester. Xin said that all of her instructors were very understanding of the fact that she was an international student and that they gave her "some break." When referring to her FYC instructor, she said: "She is not that harsh. She understands you're an international student. As long as you communicate your overall meaning, she won't lower your grade because of that, grammar (Final Interview, May 2, 2014). I suspect that if Xin felt that accuracy in her text was more important for her instructors, she would have felt more compelled to ask for grammar feedback and put more effort in addressing grammar issues pointed out by her instructor on the final project.

Hui

For Hui, grammar accuracy was very important and he thought it was important for his FYC instructor. In the initial interview, Hui stated that he "did not want even one grammar mistake" (January 29, 2014) and expressed that he was hoping for a lot of WCF. Unlike many other students in the study, Hui's feedback in his FYC class was focused on grammar, as he indicated that he did not receive much feedback on content. I asked Hui what he thought about it and he said: "Grammar is the only part which I can't control by myself....but other part, I think I can control it." He then added: After I take

this course, it improved a lot of my writing skills, so while I write a paper in other course, I will think about what I learned in this course, especially grammar" (April 25, 2014).

It was also clear that Hui desired to receive even more WCF from his instructor. When I asked Hui at the end of the interview if he wanted to share anything else with me, he only stated that he wished his instructor provided WCF in the entire paper, as opposed to the first page or two as was the usual practice for his instructor. Interestingly, for Hui, not providing WCF in his entire paper indicated that his instructor did not read it:

Sometimes I just think it is better to read the whole essay because sometimes I doubt they even read the whole essay, because there is too much work, you know. I mean, they just read one or two paragraphs because every time I look at the feedback, I get a feel[ing] that the first paragraph and second paragraph has a lot of corrections, but there is little correction in the rest paper. (Final Interview, April 25, 2014)

I explained the reason behind the limited WCF, as was explained to me by his instructor, and he seemed a little skeptical and puzzled about it. It appears that students may not always understand the instructors' approach to WCF or understand that the expectation in regards to how they should use the feedback is that they try to self-correct the rest of the paper paying particular attention to the issues pointed out on the first page.

Unlike most other students, Hui's experience at The Writing Center, which he visited once that semester, was very satisfactory to him. When I asked about it, Hui provided a detailed description:

It is a *very* useful place (emphasis Hui's). They also taught me how to write the beginning of the essay and the ending of the essay, and the skills of summary, I

think they [are] very useful. That's what the professor didn't tell us, so. And it's face-to-face teach[ing] so it's very different than in class. The first question I asked the tutor was to help me find my grammar mistakes. But I just asked him to read one paragraph because that paragraph I add later after the processor graded the essay. (Final Interview, April 25, 2014)

Hui received considerable amount of WCF from his English instructor, which is why he may have inferred that it was important to her; consequently, he was concerned about his grammar accuracy, and sought help outside of class.

Hui's instructor's focus on grammar in his paper made him not only pay attention to grammar, as indicated in his revision recorded for the study, but it also helped him, self-reportedly, improve his writing skills in other courses. However, Hui admitted that because other professors or TAs do not care about grammar, he does not put as much effort in paying attention to grammar, concluding that "that is the reality, but it's not what I want" (April 25, 2014).

Zehao

For Zehao, grammar accuracy was equally important and, interestingly, unlike Dong, who was a student of the same instructor, Zehao thought that grammar accuracy was also important for his instructor. Zehao expressed interest not only in WCF, but also in grammar exercises: "I think grammar is a hard thing to fix, so we need more exercises.... I think that [content] is important but maybe grammar for low level writer is more important" (January 28, 2014). At the end of the interview, I asked Zehao if he was satisfied with the amount of grammar support he received in the course and he stated:

Grammar is important but the amount is not very important; if it's a lot or is little, I do not mind. I just fix all and I can get improvement. It's just my attitude is what the teacher thinks I need to correct and I will correct that. (April 24, 2014).

Compared to Dong's experience with the same instructor (although in a different section of the course), Zehao was simply appreciative for any support he received believing that any grammar support he gets can lead to improvement in his grammar. In contrast, Dong was rather pessimistic about his ability to improve his grammar, which is probably why he was expecting much more WCF than Zehao, and when his expectations were not met, he perceived it as lack of care on the part of his English instructor as well as other instructors that semester.

Just like Hui, Zehao also appeared to seek more help with grammar outside of class. For example, hoping to learn more about strategies Zehao used to revise his grammar errors, I asked Zehao what he usually did when he did not understand the WCF he received. Zehao indicated that he asked a "native speaker" to help him, and when I asked if he had a chance to talk to his instructor about it, he said that he did not because it was his "fault." This is consistent with reports from other students who felt that they should not bother their instructors with questions about the WCF they received.

Fortunately for Zehao, when he visited The Writing Center, he received help with what he described as "basic problems with grammar and formatting" (April 24, 2015).

Conclusion

In this chapter, I have demonstrated that students' experiences with WCF are varied and that their attitudes toward grammar may largely be influenced by the context in which WCF is provided. While it is generally believed that international students are

often too worried about grammar, which may prevent them from focusing on content and generating creative ideas, it appears that when some students feel that grammar is not important for their instructor or their grade, they may devote less attention to grammar issues in their writing or the WCF that they receive. Being able to seek help with grammar (and other issues related to writing) outside of class is an important skill, and students were found to be encouraged to seek that kind of help. Even though students were encouraged to seek help outside of class, I found that some students may not be able to receive much more grammar support beyond one paper or one paragraph per paper in their FYC course.

I do not think that grammar should be the focus of FYC courses, but it appears that, perhaps for practical reasons, when it was perceived by students (correctly or incorrectly) as not crucial for their success in the course, they were found to devote less time and effort to grammar issues and chose to focus on other aspects of writing, such as organization, which could guarantee them the biggest reward (e.g., a grade). Conversely, when grammar accuracy was perceived as important in the course, whether it was their first-year composition or another course in which they were enrolled that semester, students sought help with grammar outside of class. However, as I will discuss in the next chapter, students' engagement with WCF at the time of revision did not appear to be affected by their perceptions of how important grammar accuracy was for their grade or their beliefs about the importance of grammar accuracy in general.

CHAPTER 6

DISCUSSION, IMPLICATIONS, AND FUTURE RESEARCH

In this chapter, I highlight the findings and contributions of the study toward the understanding of the factors that influence students' engagement with WCF. It has been previously recognized that WCF can facilitate language development and that it is the students' willingness and motivation to use it that ultimately determines how effective it can be (Hyland, 2010). Previous studies have also indicated that students' response to WCF is a highly personal process, which can be affected by a variety of individual and social factors. The findings of these previous studies, most of which were conducted within the last five years, represent a significant shift in studies on WCF, a shift from measuring the effectiveness of WCF (as indicated by the percentage of correct revisions in students' revised and subsequent texts) to investigating the conditions that either facilitate or impede its effectiveness. The current study is in line with this shift and it attempts to provide a better understanding of the factors that influence students' response to WCF provided in FYC courses.

In the following section, I discuss the various factors that were found to affect students' engagement with and their attitudes toward WCF. In my initial interview with the students, I determined that they were interested in improving their grammar and they appeared motivated to use WCF to facilitate their improvement. As I have shown in the current study, sometimes, despite students' willingness to engage with the WCF, how they engage with it is influenced by other factors, such as the type of feedback, the method by which it was delivered, and even their perception of how it will impact their

grade, although the perception itself does not appear to influence how students engage with WCF at the time of revision.

Pedagogical Factors

One of the factors that appear to influence students' engagement that emerged from the data was the type of feedback provided by the instructors. Instructors in my study indicated errors through a variety of feedback types, from directly correcting errors in the paper or locating the error by error code or in a comment. First, I found that direct correction via track changes tends to be ignored by students, who gravitate toward feedback provided in the comments. Students made all the revisions indicated by direct feedback when it was provided on a hard copy of the paper, and although the students recognized the change made by the instructor as a correction of their error, making the change did not necessarily lead them to think about the error and understand what change was made and why. The exception was when the direct correction was provided electronically in the marginal comment or with a question mark or a brief metalinguistic explanation, which facilitated error awareness. It appears to me that when instructors took the extra step to explain the error, students responded to it with more attention, but when the correction was only made for the students, they did not feel it was very important to consider. Min, one of the students who received some track changes and some comments containing indirect feedback and direct feedback with a question mark or a hedging (e.g., I think you mean...), summed it up in the following way:

I think I have two types of mistakes in this paper. The first one is accident mistakes and another one is I just have no idea what it is. And I think the instructor separates feedback into three parts. One is correcting for me, one is

highlight, and the last one is highlight with comments. And I think the first two are accident mistakes; I just automatically thought it is accident mistake for me and I just need to be careful next time. But when it is something with comment, I think it is rather important, even if there are some accident mistakes, I still think they are important, I don't know why, but it is. (April 30, 2015)

While I do not believe that Min's interpretation is fully accurate as I would not say that the error corrected in track-changes were unimportant, he provides an important insight into how students may perceive corrections when they are provided by track-changes. There is no research to date that examines how such perceptions affect students' engagement with feedback, but it appears that the students in this study would concur with Min's interpretation that when errors are corrected for them, they do not feel they are very important.

In the case of indirect feedback, which can range from providing metalinguistic explanations about the nature of the error to locating the error with an error code (metalinguistic information) to only locating the error for the student by circling or highlighting, learners are expected to correct the error by themselves. Indirect feedback has been considered to be more effective in engaging the learner since it requires that students consider the error and come up with a correction, and while I did find that students were more engaged with indirect feedback (revision or deliberation) and even indicated more understanding of the nature of the error, quite often students were also found to ignore indirect feedback if they could not understand the feedback or recognize the error in their text. In these cases, despite students' willingness to engage with feedback, students are not always able to correct their errors. When students do not make

any changes (unresolved resolution), it may be interpreted as lack of engagement, but what I found is that it does not necessarily mean that they made no effort in making the revision. It may just mean that they were unable to either understand the feedback or locate the error.

Indirect feedback requires that students not only understand the feedback but also possess the knowledge about the specific error that was identified. Even if the identified error is "treatable," which means it follows a teachable rule (Ferris, 2002), students may not be able to correct it despite their effort or motivation to do so. Expecting that students are able to correct a verb tense form, for example, assumes that they understood the difference between the different tenses and made the error because they were perhaps not very careful while writing, so if they only think about it for a little longer, they will be able to notice what they did wrong. I found that with the exception of error location by highlighting that appeared to target "performance mistakes," students corrected their errors identified with indirect feedback (error code and comments with or without metalinguistic explanation) about 50% of the time. The other 50% of errors were either unresolved or resolved incorrectly because students were not able to notice what was wrong and did not possess the knowledge needed to revise the error.

With regard to one specific type of indirect feedback, namely error location with error code, I found that while it did result in more engagement and error awareness compared to direct feedback, students' engagement with it was what I would describe as "editorial," and not many deep connections between form and meaning were made. This was especially true for certain errors identified with this feedback such as tense and plurality. More specifically, I found that when the error indicated by error code could be

revised only by looking at the code, as in the case of subject verb agreement or verb tense, students did not consider how their error or its revision affected the sentence in which it occurred and, more importantly, why it needed to be changed. In many cases, students quickly added the -ed to verbs or -s ending to nouns, and during the stimulated recall, they were able to identify that the nature of the error was "tense" or "plurality," but I would argue that knowing that an –s needs to be added to some words to express plurality is not the same as knowing why it needs to be added in the particular context of the sentence. When the same error, tense or subject-verb agreement for example, was located by highlighting rather than error code, the one student who received that type of feedback indicated error awareness possibly because he needed to read the sentence to identify the error. For the purpose of this study, I was looking for evidence of engagement and identification of the nature of the error, and based on these two criteria, most students who engaged with the error code feedback were able to identify the grammatical issue that was coded. However, I would argue that the potential for building connections between form and meaning would be greater if the students were also focused on the why not just the what.

Therefore, it may be more important to consider the type of error addressed by WCF if we are concerned with how that feedback can influence learners' language development. However, it does not appear that the criteria for identifying which type of error to address with a particular type of feedback should be determined by what has been previously referred to as treatable versus untreatable errors (Ferris, 2002). As was shown in previous research on corrective feedback (both oral and written), some categories of errors are more suited for direct correction (e.g., untreatable word choice), while others

(e.g., treatable subject-verb agreement) are more suited for indirect correction (Bitchener & Ferris, 2011). I found, however, that when treatable errors, such as subject-verb agreement are identified by error code, students do not always show that they consider the reason for their revision. When students only make corrections without considering how it affects the meaning, it is unlikely that such engagement will lead to changes in their interlanguage.

Based on these findings, I argue that if students paid more attention to direct feedback, especially if it is provided with brief explanations about the nature of the error, it might have more impact on language development for it can provide opportunities for students to register "useful exemplars" and "patterns of usage" that are needed for language learners to make generalizations and inferences about the language they are acquiring.

Individual Factors

In contrast to previous research that indicated that students' attitudes and beliefs about feedback affect students' revision (e.g., Hyland, 1998, 2011; Storch & Wigglesworth, 2010), I found that students' favorable attitudes toward WCF do not automatically guarantee that a deeper processing of that feedback will occur, at least at the time of revision. For example, even the students who were very concerned about accuracy in the writing and were motivated enough to seek help with grammar outside of class did not display either a particularly careful review of their errors or deeper understanding of the nature of the error. For example, Ping's processing of WCF did not appear very different from that of Qiang's, even though Ping's motivation to have an error free paper appeared to be much higher than Qiang's. I believe that a possible reason

for this may be that, with rare exceptions, students did not appear to think about WCF as an integral part of their language learning, and they all seemed to be engaged in what has been previously referred in literature as "fixing-up" students' paper (Hyland, 2000). Hyland (2000) found it was mostly teachers who regarded WCF as a way to fix up students' finished drafts, but that the students believed that WCF can have a more developmental role in their learning. Regardless of students' beliefs, I did not find an indication that students did anything other than "fixing-up" their papers while revising.

Moreover, I was expecting to learn about strategies that individual students used to help them revise their errors, but beyond a handful of times when students accessed an online dictionary to either translate a word used in the feedback or translate a word that students wanted to use in their paper, they did not indicate any other strategies. This may be related to the level of students' intrinsic motivation, which was brought up by one of the instructors, but it also could be the result of students simply not knowing what they can or should do when they encounter different types of feedback and how they can use it to not only fix their errors but also learn during that process. Therefore, students may need to be taught how to best engage with their instructors' feedback as they may simply not understand what our expectations are.

Socio-Contextual Factors

Based on the interviews conducted with the instructors, I found that all of them thought that grammar was important in their students' writing, but that they felt that the policy of The Writing Programs either affected the extent to which they focused on grammar in their class or the extent to which their students did. While there are plenty of reasons, such as lack of time or the instructors' inability to provide proper grammar

feedback, for choosing not to address grammar in students' papers, it seems that the grading policy may unintentionally provide the justification for the instructors and, consequently, the students to pay less attention to grammar.

When students perceive that grammar is not important to their instructors and/or their grade in the course, as I concluded based on the interviews conducted with the students, they appear to put less effort into seeking help with grammar outside of class. In contrast, when students' instructors in other courses pay attention to their grammar and lower the grade for grammatical mistakes, students were found to be more motivated to seek help. However, as I discuss in the section on Individual Factors, their motivation to avoid grammatical errors did not necessarily lead to a significant difference in the quality of engagement and error awareness during revision.

In addition, as indicated by previous research, WCF can provide students and instructors with a means of establishing interpersonal relationships (e.g., Conrad & Goldstein 1999; Hyland 1998; Hyland & Hyland 2001). I believe it is important for instructors to learn how students react to their feedback as my findings indicate that the way in which instructors address grammar issues can be frustrating to students. Some students were clearly frustrated by what they perceived as not a very useful feedback, particularly error codes, or when they felt that their instructor did not read the entire paper, which was inferred from the fact that the instructor did not correct grammar errors beyond the first page. In contrast, other students who did not express any issues with the way the instructor provided WCF appeared to be eager to seek help with grammar issues outside of class. Lin, for example, appeared to be concerned about impressing her

instructor with her ability to write accurately even when she knew that it had very little effect on her grade.

While there is an indication that socio-contextual factors may affect students' attitudes toward grammar accuracy and even their effort in addressing grammar issues outside of class, the degree of their change appeared to be mostly affected by students' individual differences. This is evident in that I found that the students of the same instructor, who provided very similar feedback to both students, were affected differently. For example, a sharp contrast in attitude was seen between Qiang and Lin, who were both students in the same section of the course. They both received the same type and amount of feedback, and they were both aware that grammar accuracy was not the most important criterion for grading. However, Lin remained motivated to work on grammar issues, whereas Qiang decided that he did not need to worry about it much as it did not affect his grade in the course.

Theoretical Implications

The Potential of WCF for Language Development

Most previous studies investigating WCF and its potential for language development were guided by the assumption that it can be valuable as it provides learners with the opportunity to interact with others to negotiate meaning, or get involved in problem solving with a more proficient learner, as is proposed by the interactionist and sociocultural theories of language acquisition. In this study, I was guided by the assumption about language learning based on the theory of usage-based grammar, according to which language development is a result of being exposed to useful language exemplars in a meaningful context. I believe that this theory provides a valuable

framework to evaluate the role that WCF can play in language learning. Rather than only thinking about WCF as a means of providing opportunities to discuss it with others or notice gaps in their interlanguage, WCF may also be valuable for learners as it can draw their attention to form so that the learners can make connections between form and meaning. In case of direct feedback, for example, learners can be exposed to useful language exemplars based on which they can make generalizations and inferences about language.

While language development is a complex process, based on usage-based grammar, it is a skill like any other than can be mastered with practice and frequent exposure to target language patterns. In order for the practice to be most effective, learners need to be conscious about what they are learning because, unlike children, they have to overcome their language "biases" acquired after mastering their native language. Learning a second language requires that learners make an effort to recognize those biases and WCF seems like an ideal tool for that if it can provide that extra exposure to useful language patterns in a meaningful context. I found, however, that students' opportunities for such exposure are limited in that much of the feedback focused on single words or verb or noun forms (e.g., error code feedback), and as useful as drawing students' attention to such forms is, it does not encourage students to look beyond that and take advantage of the meaningful context in which the feedback is provided. When those opportunities to evaluate language error were provided, however, students did not appear to seize them. For example, when the feedback focused on more complex issues that required students to examine language patterns in context (e.g., comments), students were often not able to resolve the issue on their own. At the same time, when instructors

provided opportunities to examine language patterns by providing direct corrections, students either did not pay attention to them or they were unable to recognize what issue was corrected or how it affected the meaning. Therefore, while in theory, WCF provides an ideal opportunity for drawing students' attention to language in a meaningful context, unless students consider these opportunities as instrumental to their learning and the feedback does not focus on word forms that remove them from the context, it is not likely to have a significant impact on L2 learners' interlanguage.

Pedagogical Implications

WCF for Language Learning

To realize the full potential of WCF, ideally, students would be able to focus their attention on either producing the correct output or being exposed to it in the feedback. My analysis of students' revision shows, however, that students do not always engage with the feedback in a way that can lead to learning. We should recognize that written feedback is not, or should not, be only provided with the goal for students to edit their papers, as was previously recognized by Manchón (2011) who refers to this distinction as "feedback for acquisition" rather than "feedback for accuracy." If the purpose of WCF is for students to submit a paper with fewer errors, then direct feedback via track changes might be an efficient method. However, if the goal of WCF is for students to at least notice their mistakes and understand what the issue is to facilitate language development, then instructors may need to consider not only providing students with WCF with which they are more likely to engage meaningfully, but also explaining to students how they are expected to engage with it and hold them accountable for their revisions.

Providing Effective Feedback. Providing WCF is complex and requires not only the recognition that an error occurred, but also the consideration about which type of feedback and even the method of its delivery can facilitate engagement and error awareness. Based on my analysis of this practice, I suggest that direct feedback would be more effective if it is provided in a comment or in the margin of the paper and included more than a single word so that students are exposed to patterns of language to build their inventory, or database. These patterns can be later abstracted and used with different words to express other meanings based on particular communicative needs.

Both direct and indirect feedback may be more effective if a brief explanation about the nature of the error is included. Such explanation could provide students with an indication of how their error affected the meaning in the particular context of the sentence. This could be especially beneficial if students are provided with an error code, which I found can sometimes discourage students from looking beyond the word form. Such explanations would not only help the learner understand the issue better but also indicate to them that it is important for the instructor that they understand it, and help students view WCF as an opportunity to learn rather than just edit their paper.

I am completely aware that brief explanations may not always be possible to provide. For one, based on my own analysis of the errors that were identified by the instructor, some errors may not be easily explained; in such cases, direct feedback would be most effective. Another issue can be that providing explanations in additions to an error code or direct feedback is time consuming, and FYC instructors need to focus on much more than just grammar issues. Rather than trying to address all the issues in students' papers, I would recommend to focus on a few issues, one or two per paragraph.

If the issue is that a student used a present tense rather than past tense throughout the paragraph, rather than pointing out every single verb form, it would be more beneficial to explain to the student why he or she needs to use the past tense in this particular context and ask him or her to look for the verbs and revise them accordingly.

The Need for Providing Clear Expectations and Guidance. Regardless of feedback type and method that instructors incorporate into their practice, it may be necessary to explain to students why a particular feedback type was chosen and how students are expected to use it. For example, some instructors only give feedback on the first page of the paper, or one or two paragraphs, and if the students do not understand the reason behind this method, they may assume that the instructor was not very careful while reading their paper (as was reported by Hui). In addition, they may not understand what the instructors' expectations are. During the interview with one of the instructors, I learned that students are expected to self-correct (if that is even possible) the parts of the paper not addressed by the instructor after being provided with some grammar feedback on the first page of the paper. I also learned that the instructor does communicate that to the students in class, but as can be expected with L2 learners, this expectation may need to be repeated more often and provided in writing as students may not understand such explanations when they are provided verbally only.

Although WCF has the potential to facilitate learning, it will only be effective if the writer engages with it and since there is some evidence that students often do not use instructors' feedback as expected, it is important that instructors guide students through this process. I believe that in addition to recognizing that students may not understand the instructors' expectations, it is also important to recognize that they may not understand

what they can, or should, do when they seem unable to understand the feedback or the nature of the error. I noticed that when students do not understand what the feedback indicates, they tend to proceed without addressing the issue, which is very impractical from the students' and the instructors' perspective who spent the time providing the feedback. Instructors may need to help students became aware of revision strategies in order to maximize the potential of WCF and facilitate deeper processing of feedback. Providing students with tools to encourage them and help them use the feedback without the necessity to rely on others can allow them to exercise their autonomy without missing out on the opportunity to learn.

One approach is to provide students with a guideline on how to address specific errors. This guideline can be in the form of a handout, which lists different types of errors (e.g., passive voice form) with examples of how they might be corrected. In addition, the guideline should also explain phrases commonly used by the instructor, such as "Awkward" or "Rephrase," as students are often confused about their meaning and may not understand what they need to do upon encountering such comments. Another approach can be to require students to purchase a grammar tutorial which addresses various grammatical issues and refer to the particular chapters or sections of the tutorial when providing WCF. These approaches may be more useful for lower proficiency students, as students at more advanced levels may not make the types of errors that are easily addressed by referring to a specific rule. However, more advanced students may also be more likely to be able to address their errors when they are simply located for them by circling or highlighting.

The Need for Accountability. When WCF is provided, it is important to hold students accountable for making the revision; otherwise, students may feel that it is only an option. Some instructors may find that students' revised drafts have fewer errors, but unless they can follow-up to see how they addressed the particular issues pointed out in their feedback, it may mean that the erroneous sentences were rewritten to avoid addressing the issues. Providing students with specific guidelines and expecting them to show proof of their revision may be a crucial motivating factor for students to engage with the WCF; it may be especially important if grammar accuracy is not a significant part of classroom instruction or grading. I do not believe that we should penalize students for grammatical errors in their writing; however, if students are provided with WCF, it does not seem unfair to me to expect that students make every effort to address the issues that were pointed out.

One approach that I believe would be particularly suitable is to require students to write a brief note along with the submission of the revised paper about their response to the instructor's feedback (Bitchener, 2005). While requiring students to write the responses does not guarantee that they will always understand why something was wrong or why something was corrected, making a conscious effort to understand it in the context of the sentence will provide students with the input they need to learn from the feedback and the opportunity to engage in "languaging" (Swain, 2006), which I believe can facilitate error awareness that can lead to learning, even when "languaging" takes the written form.

The approach to require students to write a note explaining to the instructor the revisions that were made (or not made), as explained by Bitchener (2005), is similar to

requiring authors who submit their article for publication in a journal to show proof of the revisions made after receiving feedback from their reviewers. Expecting this kind of accountability may help to professionalize WCF practice in college, rather than seeing it as a remedial practice for low language proficiency students. I believe that this form of communication would allow the instructors to develop closer relationships with students and communicate to them the importance of revision without penalizing students for their proficiency level, as they would be expected to address the issues that were pointed out by the instructor. Observing how students incorporate instructors' WCF into their revised drafts could also improve instructors' own WCF practice.

Methodological Implications

Two of the WCF studies that investigate students' engagement with WCF focus on examining the potential for it to facilitate language learning during collaborative tasks of revision, which allows the researchers to audio-record student collaborative dialogue and examine the recording for evidence of engagement and uptake (Storch & Wigglesworth, 2010; Swain & Lapkin, 2002). Studies that investigate engagement with WCF of individual students have relied on the method of retrospective interviews (Hyland 1998, 2003, 2011). Building on these previous studies, the current study used screen-capture software to record students' revision after they received WCF from their instructors to capture every action the student took during the process of revision including inserting, deleting, highlighting, cursor movement, or even going online to check a dictionary.

I used Camtasia Relay video recorder, a software that records on-screen movements and facial expressions through the built-in web camera. I was able to use the

software on any computer, even the students' computer if they wished, as the software can be saved on an external drive and it is compatible with different operating systems. The use of this screen-capture software allowed me to collect data in a relatively non-invasive way as opposed to, for example, video cameras with tripods or a researcher taking notes. The final advantage of this particular program is that the students and I were able to play the video immediately after they were finished recording as the software does not require rendering time.

When students completed their revision, I inquired about the particular revisions, or lack thereof, through the video-stimulated recall. As in Hyland's studies, this method of inquiry was used to gain insights into the cognitive process at the time of revision. In addition to relying on students' memory about particular revisions I was able to identify possible evidence of engagement that could have been omitted during the retrospective interview without the video as students may not remember what they did or realize what is important to mention. In addition, as we watched the video, I was able to direct students' attention to language items with which they seemed to struggle or ignore during the revision, which is also something that they might have not mentioned during the retrospective interview. We were also able to watch the video captured by the software through the built-in webcam, which allowed to explore the visual cues, such as frowning or taking notes. This video was especially helpful for revisions with students who received their WCF on the hard copy of the paper as I was able to get an idea of how long they spent looking at the feedback compared to making the revisions. This method allowed me to capture not only the change that students ended up making in the draft,

which could have been done without video recording the students, but also the process that they engaged in and how they arrived at making the changes they did.

Institutional Implications

While exploring students' engagement with WCF, I learned that providing students with grammar support may not represent a significant part of FYC courses; therefore, it may be important for institutions, or other university units, such as The Writing Center, to provide students with such support. International students are admitted to college based on their English proficiency level, so it does not seem ethical to then penalize them for their proficiency level once they are admitted. In other courses outside of the English department, grammar may still be the gatekeeping mechanism either preventing students from passing classes or even learning the content, which may have consequence on students' success, so it may be crucial to collaborate between different colleges to strategize how to best support students in their studies. Such efforts have been taken at the institution where the study was conducted and they include one-credit courses for freshman international students which provide them with support related to writing in their disciplines with the focus on genre and grammar conventions.

Providing WCF is a complex practice that requires training in order for it to be effective. Instructors of FYC courses that are geared specifically for non-native English speaking students could benefit from training on how to provide students with WCF. Such training could be a part of a required symposium on L2 writing where a variety of topics related to L2 writing could be discussed including grading policy, material development, or effective teaching strategies for this particular student population. In the process of analyzing students' engagement with WCF for the current study, I became

much more aware of my own WCF practice, and I believe that a similar approach of analyzing other instructors' WCF would be an effective training technique that would make instructors aware of the complexity of this practice.

Limitations

As a qualitative and exploratory study, the findings presented here are descriptions of my observations and interpretations; therefore, I cannot claim to provide any definitive answers. Specific limitations for this particular study included the analysis of data, particularly the categorization of instructor's comments as the instructors were not trained nor expected to provide feedback in any particular way for the study. This could be avoided by offering to provide WCF to students or recruiting instructor participants who would be willing to undergo a specific training on how to provide WCF. I am also not able to draw definitive conclusions about the relationship of engagement and learning outcomes as I have not set out to measure students' accuracy in a subsequent text. My argument that engagement is beneficial for learning is based on my theoretical assumption and belief that the cognitive involvement during the process of revision is likely to have a positive effect on language development.

In addition, analyzing students' revisions for evidence of engagement and error awareness had its challenges partly due to the nature of the information that I was trying to elicit and partly due to the different types of feedback being analyzed at one time.

Determining students' error awareness based on direct feedback is different than determining students' error awareness based on error code feedback or comments with metalinguistic explanations since one explicitly states what the issue is and the other does not. Sometimes it was enough for the student to understand the feedback in order to

understand the issue, but I also wanted to be careful not to simply rely on students understanding of the feedback, so I often probed them to tell me a little more, which may have influenced the degree to which they thought about the error at the time of the recall, not at the time of revision.

Lastly, it is possible that the results of my analysis are influenced by the students' level proficiency as well as their cultural background. Based on my analysis, I suspect that students' proficiency levels may have had some influence on their engagement, error awareness (or my interpretation of error awareness), and even attitudes toward grammar accuracy, but since I was interested in exploring students' engagement with WCF in the context of FYC I did not use any other criteria for selecting participants other than their placement in those courses. While I inquired about the students' TOEFL scores to provide me with another measure, those scores were self-reported and it did not appear to reflect students' current levels of proficiency. In addition, it is possible that students of a different cultural background might have been affected differently by factors such the grading policy.

Future Research

Only a few naturalistic studies have been conducted that specifically focus on students' engagement with WCF (e.g., Hyland, 1998, 2003, 2011), rather than the effectiveness of one method over the other on accuracy in the revised drafts (error resolution), and all three of the studies are based in the ESL learning context, where the focus is on language learning, rather than composition. My study was an attempt to provide insights about how the context of FYC affects students' attitudes, which can potentially influence their engagement with WCF. There is a need for future studies on

WCF to be conducted in the context of FYC to provide more data on how this particular context affects students' engagement with WCF and the learning potential for L2 writers who are revising their drafts individually.

Based on the findings of my study, pedagogical factors, such as feedback type and the method of its delivery, appear to have a significant effect on students' decisions regarding WCF and future studies could focus on investigating whether students can be taught how to use each feedback type more effectively to facilitate their language development, not just help them submit an edited draft. I have recommended various strategies, some of which have been suggested in previous studies, to be used by instructors to encourage students' engagement with WCF in the context of FYC. Future experimental research with a treatment and a control group could investigate the effectiveness of such approach from the students' perspective. In addition, it would also be valuable to learn about FYC instructors' perspectives on implementing such approaches into their WCF practice.

Examining WCF within the tenets of usage-based grammar can be a very fruitful direction for future research. In this study, I was guided by the assumption that language learning is learning of *patterns of usage*, or constructions, from concrete exemplars. WCF can offer students opportunities for such learning as it can draw their attention to specific language patterns to be examined in meaningful context. By searching for evidence of those opportunities, I realized that the ways certain types of WCF are provided or errors they address inherently discourage students from examining their errors in context and focusing on language patterns, so the opportunity for WCF to encourage the development of form-meaning connections or the inventory of language patterns may be limited.

Future research investigating WCF from the perspective of usage-based grammar can focus on analyzing students' revisions by looking beyond engagement and students' understanding of the nature of the error and analyze it for evidence of how different types of feedback can provide opportunities to facilitate the development of form-meaning connections and learning of new language patterns. In order to measure such development, WCF would have to be provided with the focus on highlighting language patterns or providing explanations which would facilitate the building of connections between the form and meaning.

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APPENDIX A

IRB PROTOCOL



EXEMPTION GRANTED

Paul Matsuda English 480/965-6356 pmatsuda@asu.edu

Dear Paul Matsuda:

On 11/5/2013 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study			
Title:	Exploring student engagement with written corrective			
	feedback in first-year composition courses			
Investigator:	Paul Matsuda			
IRB ID:	STUDY00000261			
Funding:	None			
Grant Title:	None			
Grant ID:	None			
Documents Reviewed:	 Instructor CONSENT-SHORT FORM.pdf, 			
	Category: Consent Form;			
	Student CONSENT-SHORT FORM.pdf, Category:			
	Consent Form;			
	Student Engagement with Written Corrective			
	Feedback_Uscinski.docx, Category: IRB Protocol;			
	 Appendices.pdf, Category: Measures (Survey) 			
	questions/Interview questions /interview guides/focus			
	group questions);			
	verbal-script.pdf, Category: Recruitment Materials;			
	Recruitment e-mail to Instructors.pdf, Category:			
	Recruitment Materials;			

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/5/2013.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

APPENDIX B

FEEDBACK METHOD QUESTIONNAIRE (INSTRUCTORS)

- 1. How do you plan to respond to your students' drafts? Will you comment on content, organization, grammar, and mechanics? Please explain.
- 2. If you correct grammar in student writing, how will you indicate grammatical errors on your students' written work, i.e., what method of correction will you use? (e.g., underline, correction codes, direct correction, metalinguistic feedback, etc.).
- 3. Do you require students meet with you to discuss their grammar and the feedback you provided or do you only give feedback on students' written papers?
- 4. How do you provide students with feedback?
 - a. electronically, but not directly in the paper
 - b. electronically, directly in the paper
 - c. handwrite comments and corrections on a hard copy of the paper
 - d. other: please explain below
- 5. Do you require students to engage in peer feedback during class?
- 6. Is there anything else you would like me to know about your feedback practices?

APPENDIX C INVITATION TO PARTICIPATE IN THE STUDY

You are invited to participate in the study about student engagement with instructors' written corrective feedback. This research is conducted as part of a doctoral dissertation and will be conducted during the Spring 2014 semester. If you agree to participate, I would also invite your students to participate in the study and ask them to allow me to make copies of all their writing done in your course, including your comments.

The purpose of collecting students' writing is to see whether and to what extent students incorporate instructor feedback in their revisions and new writing. Students will also be asked to participate in interviews and writing revision sessions during which they will be asked questions about their strategies for incorporating your feedback.

Your participation is voluntary at all times and you can decide to discontinue your participation at any time. Discontinuing your participation will not have any effect on your status as an employee of the university. Your identity as well as the identity of your students will be kept confidential and pseudonyms will be used to refer to anyone that participates in the study.

If you would like to participate, please write your name below and an email address or phone number where I can reach you. Also, tell me if I can contact you for interviews and the revising sessions by writing "yes" or "no." If you have any questions about the study, please feel free to contact me by phone or email.

Name:	
Contact Information: email	
May I contact you for interviews and revising sessions? YES	NO
Sincerely,	
Paul Kei Matsuda Izabela Uscinski	

APPENDIX D

BACKGROUND QUESTIONNAIRE (STUDENTS)

Your Name:	
Sex (circle one): Male Female	
Age:	
Native Language:	
Country:	
Program of Study:	
English proficiency level (e.g., TOEFL, IELTS, or PTEA test scores):	

APPENDIX E

STUDENT INTERVIEW QUESTIONS (BEGINNING OF THE SEMESTER)

- 1. Tell me about your experience with writing in English. Did you take any writing classes before this class? If yes, where did you take them?
- 2. Do you remember a writing teacher that was especially helpful in improving your writing? Can you describe what he or she did?
- 3. Did your previous writing teacher give you feedback on your grammar in your writing and asked you to revise/correct it? If yes, can you describe how you used the feedback?
 - a. Did you always correct all mistakes?
 - b. Did you need help understanding the feedback you received?
- 4. What kind of feedback did you receive in the past? (e.g., direct corrections, indirect correction, metalinguistic clues, comments on ideas, comments on organization).
 - a. Did you like receiving this feedback?
 - b. Do you think that this feedback was helpful to improve your writing?
- 5. Do you like when all your grammar errors are corrected in your writing or you prefer that only some errors are corrected?
- 6. How important is it for you to improve your grammar in this class?

APPENDIX F

STUDENT INTERVIEW QUESTIONS (END OF THE SEMESTER)

Perspectives/Attitudes

- 1. Was feedback important to you in this course?
- 2. Did you feel satisfied with the amount of feedback you received? (Did you want more or less?)
- 3. Were you looking forward to receiving instructor's feedback on your grammar?
- 4. How did you feel when you were reviewing the instructor's feedback? (Was the feedback you received easy or difficult to understand? Did you appreciate it? Did you feel discouraged? Did you feel motivated?)
- 5. How do you feel about the amount of time you spent and strategies you used to revise your assignments? (Do you think you spent a lot of time reviewing the feedback?)
- 6. Do you think that feedback was beneficial to you to improve the writing in this course?
- 7. Do you think that the feedback you received in this course helped you learn English?

Use of feedback outside the video recorded sessions

- 8. Did you meet or e-mail the instructor to discuss his/her feedback?
- 9. Did you know that you could get help from the Writing Center with writing your papers for this course? Did you go there to get some help with your revisions? If you did not use the tutors at the writing center, did you discuss your writing or received help from someone else? A friend? Family member?
- 10. How much more time, if any, did you spend on revising your drafts after the video recorded sessions with me?

APPENDIX G INSTRUCTOR INTERVIEW QUESTIONS

- 1. What influenced you the most in shaping your pedagogical decisions about the writing instruction and feedback practices?
- 2. Do you think that your students expect to receive corrective feedback in their writing? How do you know that?
- 3. Do you think that students use your feedback effectively?
- 4. Did you instruct students on how to use your feedback? If yes, how?
- 5. In your opinion, how should students engage with your feedback to utilize it most effectively?
- 6. Have you noticed any strategies used by students to revise their essays?
- 7. Do you require student to meet with you to discuss your feedback or students' revisions after they receive your feedback?

APPENDIX H CODING SHEET

Error	Feedback	Engagement		Error Awareness		Resolution		
	type	Yes	No	Yes	No	Correct	Incorrect	Unresolved